The RCGP Curriculum Topic Guides

For implementation from 1 August 2025

Royal College of General Practitioners

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The Professional Topic Guides

Consulting in general practice

About this topic guide

This topic guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you to understand important issues relating to consulting in general practice by describing the key learning points. It also contains tips and advice for learning, assessment and continuing professional development (CPD), including guidance on the knowledge relevant to this area of general practice.

Each topic guide is intended to illustrate important aspects of everyday general practice, rather than provide a comprehensive overview of each clinical topic. It should therefore be considered in conjunction with other topic guides and educational resources.

Summary

- Effective communication with your patient and their advocates, including carers, is essential for good care.
- As a general practitioner you must show a commitment to person-centred medicine, displaying non-judgmental attitudes and a holistic ethos.
- Developing plans for care and support with the patient involves a collaborative approach, including agreeing shared goals and considering the patient's unique values and preferences alongside the best available evidence, as well as applying relevant ethical and legal principles.
- You must manage complexity, uncertainty and continuity of care within the time-restricted setting of a consultation.
- Technology is facilitating new ways of consulting in general practice, for which the same consultation principles hold true, whether using telephone, video or even email or text messaging. Fundamental information governance principles and communication skills still apply with these new methods.

GP consulting

The consultation between doctor and patient is at the heart of general practice. It is the central setting through which primary care is delivered and from which many of the curriculum outcomes are derived. The skills used in the consultation are transferable to other areas of professional practice. For example, your communication skills and approaches with patients are transferable to how you work with colleagues, in leadership and in teaching.

Having highly developed communication skills is pivotal to all aspects of high-quality patient care.

'Consultation skills' and 'communication skills' are not interchangeable terms; both are subsets within the interpersonal skills, knowledge and attitudes required to consult effectively.

The following three areas have a strong influence on person-centred consulting:

1. Attitudes, feelings and biases

- Subjective feelings, values and preferences of both patients and doctors can strongly influence the consultation. These can bring benefits and risks to the consultation. For example, while they can help you to establish rapport, they can also impact on shared decision-making through conscious and unconscious biases. This is particularly important in areas such as sexuality, sex and gender, age, race, culture, religion, class and educational attainment.
- Some patients will attend the same GP repeatedly during the course of their lives: this longitudinal relationship can influence attitudes, feelings, biases and processes within consultations for both patients and doctors.
- Patients' views and perspectives may change during the course of their lives and even during the course of an illness.
- Health beliefs, preferences and ethnic and cultural differences have an impact on how patients present in primary care and engage with health services, and approaches to management
- Adopting a curious and open-minded attitude can offer useful insights into patients' perspectives.
- Patients make decisions about their health based on both the information they have and their individual preferences, beliefs, and values, which may not align with yours. Accepting and responding to this can improve the patient's experience and their commitment to agreed care plans.
- Patients sometimes prefer to delegate their autonomy to you as their GP, rather than take responsibility themselves, particularly at times of illness or distress. Being willing to take on this responsibility, when appropriate, is an element of patient-centred care. However, it is important to support patients in maximising their capacity for decision-making, as well as encouraging self-care, in a non-judgmental manner.

2. The consultation process

- A working understanding of a range of consultation models can offer useful insights into the processes and tasks that are central to effective consultations.
- Discovering the reason for the patient's attendance (their agenda) may be important (such as a specific worry, or anticipated outcome) to help you properly address their concerns and improve satisfaction.

- Patient-centred consulting involves being attentive to what people are communicating (both verbally and non-verbally).
- It is important to be able to monitor the consultation process in real time, and to be able to adapt appropriately, for example, noticing when a consultation is not going as well as hoped and taking appropriate steps to address this.
- Consultations are usually time-constrained. Although longer consultations have been linked to better health outcomes, increased patient satisfaction and enablement scores, balanced against this are the competing demands of appointment capacity, high demand for services and limited access to GPs.
- Constructive feedback on your consultation (both from patients and colleagues), with reference to consultation skills and communication models, can help to improve your consulting skills.

3. The wider context of the consultation

- Consultations, along with episodes of illness, rarely impact on the patient alone.
- It is important to consider the relationship between the interests of patients and the interests of their carers, relatives and friends, keeping in mind the patient's rights to autonomy and confidentiality.
- It is important to consider and support people undertaking a caring role, both those who are caring for your patient and patients who have a caring role themselves.
- Consultations that work effectively from a patient's perspective require the doctor to understand that 'health' and 'illness' comprise more than the presence or absence of the signs and symptoms of disease. You should consider the physical, psychological, socio-economic, educational, cultural and community dimensions of health.
- It is important to understand the boundaries between professionals and other services with regard to clinical responsibility and confidentiality, particularly when working in teams and in care pathways that span organisations.
- Each consultation provides a window to the local community, building a picture of the demography and diversity of your practice population, as well as unmet health needs and gaps in service provision. When combined with data from the wider population, this can inform the development of appropriate services for the community as a whole.
- It is important to address the needs of patients who are less able to access care for whatever reason, for example through lack of access to the internet or confidence with digital technologies, language or cultural differences, or disability.
- Physical, psychological, socio-economic, educational, cultural and community dimensions of health are present in every consultation. Recognising this is a skill that requires thinking beyond the bounds of your own context and into the world of the patient.

How to learn this area of practice

Work-based learning

As a GP registrar, primary care is the ideal place for you to learn about the GP consultation in practice. There will also be excellent opportunities in settings outside primary care. Examples of how to make the most of your clinical experience include:

- video analysis of consultations; this can be done using the Consultation Observation Tool (COT)
- GP trainers sitting in with GP registrars to give formative feedback; this can be done using the Care Assessment Tool (CAT)
- random case analysis of a selection of consultations; this can be done in a Case-based Discussion (CbD)
  reflection on secondary care consultations using the Mini Clinical Evaluation Exercise (MiniCEX)
- patient feedback on consultations using validated satisfaction questionnaires or tools, for example the RCGP Patient Satisfaction Questionnaire (PSQ)
- sitting in with GPs and other healthcare professionals in practice to observe different consulting styles
- observation of consulting practice during outpatient clinics
- using the telephone and other digital communication tools to consult in the practice as well as in out-of-hours settings, initially under close supervision and later independently.

You should have opportunities to discuss ethical and other values-related aspects of your practice with colleagues as these arise in your day-to-day work – for example during contact with patients, their families and the wider community, and in relevant other contexts such as audit, significant event review meetings and developing practice policies (for example on patient consent). It is particularly helpful if there is 'protected time' for reflection and shared learning. Presenting cases to your peer groups as part of the training programme will promote reflective practice and can be used to illustrate the diversity of values within a specific professional group.

It is also important for GP registrars to understand that the practice of medicine has its own culture, values, morals and beliefs that may set doctors apart from patients. During your training you should seek to gain a better understanding of the diverse nature of the society in which you will work. You should also learn to ask questions and look critically at your assumptions and attitudes about people who are different from yourself, as well as learn to reflect on these issues and, importantly, on your own feelings. The GP registrar working in a hospital or in primary care should be training in an environment that embraces differences as well as similarities in culture, social class and experience. This should be an environment free from racism, sexism, ageism or other bullying, where there are positive role models and processes that promote equality and value diversity in the workplace.

Self-directed learning

- Role-played consultations, for example during teaching or courses, are valuable in exploring consultation behaviour in a safe environment, especially those using 'standardised patients' (played by actors or role players who have been trained to react in a consistent or specific manner).
- Peer group meetings are an excellent forum for you to discuss, in confidence, video consultations recorded in your surgery or using commercially available teaching packages.
- Some peer support groups, such as Balint groups[1], can offer a specific focus on the emotional content not just of single consultations but of ongoing doctor–patient relationships. This can help with managing your own wellbeing and developing the skills and self-knowledge you need to provide best care for patients.
- Book and web resources relevant to the GP consultation can be found in 'Being a General Practitioner'.

Learning with other healthcare professionals

Consultations are the richest learning resource and can trigger multidisciplinary discussion about consulting skills, patient management, ethics, evidence-based practice, clinical guidelines and many other things. This can be achieved by observing or being observed during a live consultation, using role play or watching recorded consultations. Emerging integrated care pathways and multiprofessional team meetings offer valuable means of learning from the wider team, including social workers and secondary care consultants.

Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- Understanding and use of patient decision aids
- Confidentiality and disclosure of medical records
- Scenarios based on telephone, e-consultation and face-to-face consultations

Simulated Consultation Assessment (SCA)

- An older woman asks about options for euthanasia when her condition worsens; a hospital letter confirms her diagnosis of motor neurone disease
- A young person with diabetes has repeated admissions with ketoacidosis after ignoring instructions on managing her insulin

[1] Balint M. The Doctor, His Patient and The Illness Edinburgh: Churchill Livingstone,1986

- Routine hormone replacement therapy (HRT) check for a 68-year-old woman with rheumatoid arthritis

Workplace-based Assessment (WPBA)

- Tutorial on dealing with angry patients
- Significant event about a patient who complained that you missed their diagnosis of bowel cancer
- Audio COT regarding a patient who believes they have a chest infection

Equality, diversity and inclusion

About this topic guide

This topic guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you to understand important issues relating to equality, diversity and inclusion by describing the key learning points. It also contains tips and advice for learning, assessment and continuing professional development (CPD), including guidance on the knowledge relevant to this area of general practice.

Each topic guide is intended to illustrate important aspects of everyday general practice, rather than provide a comprehensive overview of each clinical topic. It should therefore be considered in conjunction with other topic guides and educational resources.

Summary

- Supporting equality, diversity and inclusion involves respecting the ways in which others are different from us and valuing each other as individuals, despite those differences and whether or not we disagree with each other in any of these areas. Respecting each other helps create a cohesive community and working culture, for the benefit of the organisation and individuals working in it.
- The law protects people from discrimination, prohibits victimisation and promotes equality of opportunity and treatment for people from all backgrounds. It is unlawful to discriminate against someone due to any protected characteristics.
- We must be aware of our own internal judgements and biases and reflect on how our practice could encourage or discourage equality or inclusion, particularly with respect to people who are different from us.
- It is important to be able to raise issues and to challenge colleagues should any behaviour be discriminatory.

The GP's role in reducing discrimination and enhancing inclusion

Working in the NHS, we have the potential to influence fellow colleagues and patients, and it is important to recognise the impact we have on those around us. This is especially important when considering our duty not to discriminate against our patients or colleagues and to acknowledge equality and respect diversity.[2]

Discrimination is defined as the unfair treatment of individuals from one group in a different manner to those from other groups The law protects people from discrimination on the basis of nine 'protected characteristics':

[2] For example, www.gov.uk/government/publications/the-nhs-constitution-for-england

- Age
- Disability: both physical and mental
- Gender: at any stage of reassignment, including before any physical treatment is begun
- Marriage, civil partnerships and singleness
- Pregnancy and maternity: this includes breastfeeding
- Race: this includes colour, nationality, ethnic and national origins
- Religion or belief: this includes a lack of religion or belief
- Sex
- Sexual orientation: this includes lesbian, gay, bisexual, transgender (LGBT) and non-binary.

In Northern Ireland, political opinion is also protected under law.

Equality law affects all staff of a healthcare or social care organisation that provides services to the public. Services must not treat one individual differently from another, particularly if they have one or more protected characteristics. For example, it must not be made more difficult for someone with a protected characteristic to access the services, such as there not being a lift for wheelchair users.

Other characteristics to consider (which are not among the nine protected characteristics) include any that increase the likelihood of difficulties for individuals or groups accessing care. These include:

- socio-economic factors (such as being homeless)
- being a carer or a dependant
- having a diagnosis of a potentially stigmatising condition (such as mental illness)
- lifestyle-related conditions (such as obesity or those caused by smoking, alcohol or drug misuse).

It is against the General Medical Council (GMC) *Good medical practice* guidance to refuse or delay treatment if a patient's actions or lifestyle have contributed to their condition.[3]

Further aspects of equality, diversity and inclusion can be considered from the following three areas:

1. The practitioner
2. The patient (or carer where appropriate)
3. As part of a team.

[3] General Medical Council, Good medical practice, 2024. www.gmc-uk.org/professional-standards/the-professional-standards/good-medical-practice

1. **The practitioner**

The GMC's *Good medical practice* states that you must not unfairly discriminate against patients or colleagues by allowing your personal views to affect your professional relationships or the treatment you provide or arrange. Should you feel this may occur, it is important to inform patients about their right to see another doctor and to ensure they have enough information to exercise that right without implying or expressing disapproval of the patient's lifestyle, choices or beliefs.[4,5]

It is also unacceptable to allow discrimination from a patient to go unchallenged should they refuse treatment from a clinician because of a personal or protected characteristic.

2. **The patient**

Patients need to be respected whatever their own beliefs and values, irrespective of the religion or beliefs of the healthcare professional, although there are some areas where practitioners can consciously opt out of certain provisions. Patients must also receive care that meets their communication needs – both mental and physical. All organisations in England that provide NHS care are legally required to follow the Accessible Information Standard,[6] which aims to ensure that people who have difficulties are provided with information that they can easily read and understand and receive appropriate support to help them communicate.

Organisations must consider in advance, as well as in response to, the needs of patients with disabilities so reasonable adjustments can be made for them. This could include:

- how people enter and navigate around buildings
- what information and signs are provided
- how people communicate with staff
- adjustments to appointment times and length.

3. **The team**

A positive attitude to equality and diversity also promotes inclusion. This is an element of employment rights. It is important to be able to raise issues and challenge colleagues should any behaviour lead to discrimination or bullying.

Regarding the team, some areas to consider include attitudes towards colleagues who:

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[4] Good Medical Practice, General Medical Council, Good medical practice, 2024. www.gmc-uk.org/professional-standards/the-professional-standards/good-medical-practice
[5] General Medical Council, Equality and diversity strategy 2018–20. www.gmc-uk.org/-/media/documents/edi-strategy-2018-20_pdf-74456445.pdf
[6] NHS England, Accessible Information Standard. www.england.nhs.uk/about/equality/equality-hub/patient-equalities-programme/equality-frameworks-and-information-standards/accessibleinfo/

- are at different positions in the health organisation (for example junior doctor, salaried or partner)
- work varying shifts (such as locum doctors, portfolio, limited sessions or taking career breaks)
- are proportionally under-represented (for example, there are fewer doctors from lower socio-economic backgrounds)
- are from groups that have lower pass rates in examinations and assessments
- have underlying health problems or disabilities .

Employers must treat their staff fairly and with dignity and respect. Clear equality policies should be available and staff appropriately trained. Equality and diversity data on recruitment processes and the workforce should be collected to ensure transparency.

Learning resources

elearning for healthcare offers eLearning resources relating to equality, diversity and inclusion through its cultural competence and cultural safety programme.

Learning with other healthcare professionals

Primary care teams are highly sophisticated multiprofessional groups. The opportunities for you to participate in shared learning with colleagues have expanded, particularly following the extension of non-medical prescribing and extensive collaborative working on long-term conditions and integrated care.

Are there any health support groups or outreach programmes for patients from different cultures in your area, to help gain insight into how different cultures can affect patient management?

You will have many opportunities in primary care to discuss equality and diversity with nurses, allied health professionals and managers, all of whom should be engaged in the practice's education and clinical governance programmes.

Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- Disease patterns in different populations
- Awareness of protected characteristics of equality legislation
- Health checks in patients with a learning disability

Simulated Consultation Assessment (SCA)

- A woman with raised blood pressure (BP) in late pregnancy lives in a travelling community and cannot return to you for follow-up as she is due to move on again
- A Muslim man with insulin-dependent diabetes wishes to fast during Ramadan
- A young man who is a wheelchair user wants your written support in his claim of discrimination at work

Workplace-based Assessment (WPBA)

- Consultation Observation Tool (COT) on a patient with a learning disability who is not turning up for her blood tests
- Learning log on the challenges of using a sign language interpreter in a consultation with a patient with impaired hearing
- Case-based Discussion (CbD) about a patient who requested a termination after the doctor she initially consulted declined to refer her

Evidence in practice, research, teaching and lifelong learning

About this topic guide

This topic guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you to understand important issues relating to consulting in general practice by describing the key learning points. It also contains tips and advice for learning, assessment and continuing professional development (CPD), including guidance on the knowledge relevant to this area of general practice.

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Summary

- As a GP you should be able to understand, critically appraise and communicate the results of relevant research and evidence from a wide range of sources.
- You should be able to decide whether the findings are applicable to your own patients, considering individual variability in genes, environment and lifestyle, the patient's values, priorities and circumstances, the community and the healthcare setting.
- While scientific rigour and use of the latest best evidence should inform your approach, you should also recognise the economic, social, and environmental benefits and costs of an intervention, as well as its personal value to the patient.
- It is essential to apply clinical judgement and to adopt a personalised, collaborative approach to care.
- Be aware of individual bias (including unconscious bias) in interpreting data and follow the General Medical Council (GMC) *Good medical practice* guidance in respecting culture, disability, religion, gender, sexuality and social and economic status.
- Every GP should have the skills to share knowledge with others (for example, through teaching and supervision) and be prepared for lifelong learning.

Knowledge and skills guide

Research and academic skills

As a GP you will need to acquire the research and academic skills that are necessary to keep up to date with progress in your field and to aid your decision-making. These skills may be used in many areas of practice, including:

- the clinical management of patients, including treatment, referral and acute care

- dealing with uncertainty (using best available evidence)
- challenging established practice and abandoning ineffective practices
- understanding the 'value' of an intervention
- practice-based research
- prescribing
- enabling safer working systems
- improving the quality of health promotion and preventative medicine in your practice
- audit and quality improvement within your practice or organisation
- addressing health inequalities
- lifelong learning
- improving population and planetary health
- primary care research, management, medical education or specialist roles.

A GP is expected to understand basic research methodology and how different types of research activity may contribute to patient care. This includes:

- qualitative and quantitative research:
    - differences in forms of research
    - levels of evidence and the most appropriate research design to examine a hypothesis
    - how to articulate a research question to answer a real-world problem
    - patient factors requiring both quantitative and qualitative analysis (such as adherence to treatment)
- study designs and their advantages and disadvantages, including:
    - systematic reviews and meta-analysis
    - experimental: randomised controlled double blind
    - quasi-experimental: non-randomised control group
    - observational: cohort (prospective, retrospective), case-control, cross-sectional
    - qualitative studies
    - techniques such as pilot studies, questionnaire design, focus groups and consensus methods such as Delphi
    - surveys and local healthcare reviews
- strengths and limitations of research methodologies
- differences between research, clinical audit and quality improvement.

Epidemiology and statistics (see also the *Population and planetary health* and *Infectious diseases and travel health* topic guides)

As a GP you share responsibility for the health of your local population and should understand fundamental concepts in epidemiology and statistics that are relevant to general practice. These include:

- association and causation
- basic probability, including sensitivity, specificity, positive and negative predictive value, p-values and confidence intervals
- bias and confounding including ways to adjust for these (such as regression)
- concepts and measures of risk, including absolute and relative risk, absolute and relative risk increase or reduction, hazard ratio, odds ratio, number needed to treat and number needed to harm
- differences between population and individual risk
- disease occurrence, including aetiology, frequency, surveillance, determinants, risk factors, prevention and control measures (including decisions or interventions made in the interests of a community or population of patients)
- measures of disease frequency (such as incidence and prevalence) and standardisation
- measures of health, morbidity and mortality (such as years of life lost, standardised mortality rates and ratios, and case fatality)
- principles of making inferences from a sample to a population, type 1 and type 2 errors
- risk of disease in population groups, including your own practice population
- reliability, validity and generalisability
- sampling, sample size and statistical power
- types of data, ways of presenting data (such as scatter diagrams, box plots and forest plots), distributions (normal and non-parametric), mean, median, mode, standard deviation and range.

Evidence in practice

As a GP you should understand the principles, strengths and limitations of the use of scientific evidence in practice. You should apply evidence to your own practice and set your own learning objectives based on your clinical experience.

Further knowledge and skills in this area include:

- applicability of population-level studies to individuals and certain groups (such as groups commonly excluded from clinical trials and disadvantaged groups)
- applicability of research results or conclusions to clinical practice
- approaches to clinical care when research evidence or guidelines are limited or absent
- approaches to complex tasks
- clinical decision-making tools
- critical appraisal of written or graphical information such as trial results or abstracts, clinical governance data (audit, benchmarking, performance indicators) and data presented in medical journals
- desk-based research: how to search for and retrieve valid information and evidence

- effective communication about the evidence underpinning interventions to help patients make decisions about their health, including methods of calculating and explaining risk to patients
- evaluation of guidelines to determine how suitable they are for clinical practice (including methodology, evidence base, validity, applicability, authorship and sponsorship) and of health economics studies on healthcare resource allocation and guidelines
- influence of individual and systemic bias and cultural and social factors on interpretation of research results. For example, a health outcome attributed to a certain characteristic (such as ethnicity) may be due to an underlying environment of disadvantage
- pharmaceutical marketing
- polygenic risk scoring to aid risk stratification
- precision medicine (including pharmacogenomics)
- reasons for lack of evidence about certain interventions (such as rare conditions, new diseases, conditions that have low morbidity or low pharmacological input, bias in research priorities)
- role of large GP records databases and how to contribute patient data to these
- role of genomic databases and the impact on clinical practice
- use of decision aids and information technology (IT) in clinical practice
- use of population-level data to improve the health of local populations.

Teaching and lifelong learning

As a GP you have a role in sharing knowledge with others. This may include formal or informal teaching, mentoring, supervising colleagues and peers, and education in the wider community. You are also a lifelong learner. Underpinning all this is the need for better patient care. Important principles include:

- understanding that teaching others involves more than imparting information
- the difference between clinical and educational supervision and the different skills required in the two roles
- approaches to effectively teaching and mentoring others within a team
- how to engage those you are teaching in a dialogue about their values and goals
- understanding your preferred learning style
- identifying the best methods and opportunities to address personal learning needs
- adjusting your learning style in response to challenges
- identifying methods to support the learning needs of others being taught, mentored or supervised, being aware that not every individual will learn in the same way
- techniques to adjust your teaching style to suit the individual, the topic and the circumstances
- understanding the health literacy of the people with whom you share knowledge
- using digital and online technologies appropriately to enhance learning

- giving and receiving effective feedback to and from individuals or groups, following the GMC's *Good medical practice* guidance.

Skills in sharing knowledge with patients are also covered in the *Population and planetary health* and *Consulting in general practice* topic guides.

Ethics and governance in education, research and evidence-informed practice

As a GP you are likely to participate directly or indirectly in research and educational activity. For example, you may be an educational supervisor or academic GP, your practice may be part of a research network or you may be asked to assist in recruiting patients to clinical trials. Also, you may see patients who are involved in clinical trials or be asked for your professional or expert opinion on a piece of research. It is important to understand the ethical and governance principles that underpin such activities and have an awareness of your own attitudes, values, professional capabilities and ethics in this context.

Important knowledge in this area includes:

- autonomy and patient choice
- awareness that there are different types of knowledge and ways of thinking, learning and teaching, including critical reflection on why certain types of knowledge have come to be favoured over others and the implications of this for teaching, learning and practice
- co-production of knowledge with patients
- confidentiality (including relevant legislation)
- conflicts of interest (such as incentives for certain interventions)
- consent
- ethical approval and role of ethics committees
- impact of GP research on patients and staff
- inclusivity in research, including the need for diverse data sources
- information governance, intellectual property, legal, privacy and security issues when sharing knowledge (including via online and social media channels), particularly when this involves other people's work or identifiable information about individuals
- patient safety
- research fraud.

Case discussion

You are in a busy morning clinic and unexpectedly find you have been tasked with supervising a medical student. The student will be observing you. The next patient you see, Marie Nowak, has repeatedly presented with persistent symptoms for which no underlying cause has been identified, and there is no confirmed diagnosis.

Marie tells you about a research study that is trialing a new drug for symptoms she thinks are similar to her own. The study is advertising online for participants. She also shows you a social media message, which her mother forwarded to her, about a promising new therapy that has emerged from another part of the world involving dietary change to combat inflammation. Marie's mother firmly believes that 'you are what you eat' and Marie values her mother's opinion very much. Marie feels that the NHS investigations and treatments she has received so far have not helped her and would like your opinion on the new avenues she has shared with you, including whether to participate in the trial.

Separately, you have recently become aware of emerging global case reports about a novel disease for which there is not yet an established scientific evidence base. Its symptoms seem similar to Marie's.

The medical student seems enthusiastic and engaged and asks you whether there could be an underlying mechanism of inflammation in this case and, if so, what it could be.

Questions

Core capabilities	Questions
Fitness to practise This is about professionalism and the actions expected to protect people from harm. This includes the awareness of when an individual GP's performance, conduct or health, or that of others, might put patients, themselves or their colleagues at risk.	How might Marie's health beliefs affect my behaviour towards her? What are the sources of potential stress in this situation? How might they be prevented? How do I feel when having to undertake multiple tasks or roles at the same time, and why?
An ethical approach This is about practising ethically, with integrity and a respect for equality and diversity.	What types of bias may influence the consultation with Marie? What ways of thinking, learning, teaching and knowing are present here? Which ones have greater value or credibility? Why? What ethical considerations should be made when advising patients about participation in clinical research?

Communicating and consulting This is about communication with patients, the use of recognised consultation techniques, establishing and maintaining patient partnerships, managing challenging consultations, third-party consulting, the use of interpreters and consulting modalities across the range of in-person and remote methods.	What challenges might I face when communicating with Marie? In what ways might an observed consultation differ from an unobserved consultation? What communication methods and skills could enhance the learning experience for me, the student and the patient?
Data gathering and interpretation This is about the gathering, interpretation and use of data for clinical judgement, including information gathered from the history, clinical records, examination and investigations.	What further contextual information would I want to explore with Marie to help me understand her presenting problem? How would I approach gathering and interpreting evidence about an emerging health problem? How would I approach interpreting the research article presented by Marie? What is the value of a case report both in the traditional hierarchy of evidence and in this context?
Clinical examination and procedural skills This is about clinical examination and procedural skills. By the end of training, the GP registrar must have demonstrated competence in general and systemic examinations of all the clinical curriculum areas, including the five mandatory examinations and a range of skills relevant to general practice.	What methods can be used to teach clinical skills? How might I learn or teach a multisystem approach to clinical examination with limited time? What resources can help?
Decision-making and diagnosis This is about having a conscious, organised approach to making diagnosis and decisions that are tailored to the particular circumstances in which they are required.	How would I approach making an individually tailored shared- management plan with Marie? In what ways could I manage the uncertainties in diagnosis and management?
Clinical management	

This is about the recognition and a generalist's management of patients' problems.	
Medical complexity This is about aspects of care beyond the acute problem, including the management of comorbidity, uncertainty, risk and health promotion.	What do I need to consider when responding to Marie about participation in the clinical trial? How can I make clinical decisions in areas where scientific evidence is limited or absent?
Team working This is about working effectively with others to ensure good patient care and includes sharing information with colleagues and using the skills of a multiprofessional team.	How would I respond to the medical student's question? How could I have made best use of the medical student's skill set? What is a GP's role in teaching and learning within the practice team?
Performance, learning and teaching This is about maintaining the performance and effective CPD of oneself and others. The evidence for these activities should be shared in a timely manner within the portfolio.	What factors (for example individual, systemic and environmental) create a good learning experience? How could the medical student's learning experience have been improved? What are my development needs as an educator?
Organisation, management and leadership This is about understanding how primary care is organised within the NHS, how teams are managed and the development of clinical leadership skills.	How can digital technology be used to enhance learning in practice? Why is it important to keep good records of a consultation? What systems does my GP practice have for collecting and sharing data for research?
Holistic practice, health promotion and safeguarding This is about the ability of the doctor to operate in physical, psychological, socio-economic and cultural dimensions. The doctor is able to take into account the patient's feelings and opinions. The doctor	What social, economic and cultural factors might influence Marie's health beliefs? What do I know about Marie's life and lifestyle? Why has Marie come to me for an opinion?

encourages health improvement, self-management, preventative medicine and shared care planning with patients and their carers. The doctor has the skills and knowledge to consider and take appropriate safeguarding actions.	
Community health and environmental sustainability This is about the management of the health and social care of the practice population and local community. It incorporates an understanding of the interconnectedness of health of populations and the planet.	What would I need to consider when interpreting clinical evidence from another country and how would I apply it to my patient? What are sustainable healthcare approaches to managing people with persistent unexplained physical symptoms? Are there alternative ways of approaching this case using examples of good practice from other areas or countries?

How to learn this area of practice

To become an effective and efficient professional learner, it is important to develop the habit of embedding your learning and CPD into your daily practice (in all your roles), adapting your approaches to your personal development aims and the context in which you work.

The ePortfolio is a useful tool to enable your knowledge, reflections and learning to be recorded, reviewed and continually updated. Learning entries may arise from a wide range of activities. These include:

- compliments and complaints
- critical and significant event analyses
- discussions with peers, supervisors, mentors, appraisers and teams
- feedback from teaching sessions
- learning events, such as attendance at lectures, courses, study days and workshops
- online learning activities (such as eLearning, webinars and podcasts)
- patient feedback surveys and engagement meetings
- practice-based learning events (including journal clubs or learning with a group of peers)
- quality improvement projects (including audits)
- reading books, journal articles and electronic materials
- deflection on a patient's unmet needs (PUNs) or the doctor's educational needs (DENs)

- reflection on guidelines (such as those issued by the National Institute for Health and Care Excellence (NICE) or Scottish Intercollegiate Guidelines Network (SIGN))
- reflection and learning from any wider portfolio role you may have (for example academic)
- structured feedback from supervisors, colleagues and teams.

A good understanding of how you and your colleagues learn will not only help you in your own CPD but also enable you to help develop the whole team through group learning activities.

Multidisciplinary learning

You can obtain useful knowledge and skills from a wide range of different professionals. This could be through direct clinical contact with other professionals providing services to your patients, for example, in clinics with midwives, practice nurses and health visitors. You may have a supervisory role for other health professionals within your practice team.

Working with research networks or academic institutions allows you to get a sense of the principles of good research practice, and spending time with public health teams may help you better understand the principles of epidemiology and their application to populations.

Academic and educational roles in general practice

Many GPs develop academic careers in addition to their clinical work. This can be done in a variety of ways – for example, through specific academic training posts or by entering academic practice after completion of training. GPs are also often formal educators, such as undergraduate or postgraduate tutors or clinical and educational supervisors. You may have opportunities to obtain further qualifications in teaching or academia.

Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- Common terminology used in risk communication, such as ARR, RRR, NNT and NNH, and simple calculations relevant to general practice
- Interpretation of clinically relevant graphical and tabular data from commonly available resources
- Principles and concepts in understanding research and statistical analyses

Simulated Consultation Assessment (SCA)

- Discussion with a patient who is unsure about whether they should start on a statin after they have been identified as having a borderline 10-year cardiovascular risk
- Phone call: a father wants to know why an antibiotic was not prescribed during an earlier consultation for his child, who now has acute otitis media
- An elderly woman with well-controlled hypertension has been identified through a practice audit as having atrial fibrillation – but she is not taking anticoagulation therapy

Workplace-Based Assessment (WPBA)

- Log entry reflecting on the visit of a pharmaceutical company representative promoting a specific drug
- Audit of your antibiotic prescribing against current national guidance and evidence
- Consultation Observation Tool (COT) discussion about the risks and benefits of hormone replacement therapy (HRT) for a perimenopausal woman.

Continuity and quality of care, safety and prescribing

About this topic guide

This topic guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you to understand important issues relating to improving quality, safety and prescribing by describing the key learning points. It also contains tips and advice for learning, assessment and continuing professional development (CPD), including guidance on the knowledge relevant to this area of general practice.

Each topic guide is intended to illustrate important aspects of everyday general practice, rather than provide a comprehensive overview of each clinical topic. It should therefore be considered in conjunction with other topic guides and educational resources.

Summary

- It is an essential part of your role as a doctor to regularly review the standards of practice and care that you and your team provide. Improving patient safety and quality is fundamental to reducing the risk of preventable injury, suffering, disability and death, and is necessary to enhance the experience and outcomes of care .
- The working environments, systems and behaviours of those working in health can all influence patient safety. Working in partnership with patients and carers and promoting an organisational culture that allows everyone to be honest (and raise concerns openly) is an essential part of sustaining a safe working environment.
- Clinical governance is the system through which organisations are accountable for continuously improving the quality of care and maintaining high standards. Understanding how to apply tools and metrics to monitor this is key to improving the quality of care.
- Safe, effective prescribing and monitoring of medications (and other healthcare interventions) is essential to ensure high-quality and safe care. Patients are vulnerable to mistakes being made in any one of the many steps involved in ordering, dispensing and administering medication and other healthcare products.

Continuity of care

Continuity of care, along with generalism, is a fundamental feature of general practice. The World Health Organization (2018) defines primary care as providing a “positive continuing relationship with a named primary care professional”. In the UK, continuity is defined as: “a patient having repeated consultations with the same GP”. Continuity has a

particularly strong research base showing it is statistically significantly associated with many important outcomes in the whole of medical care.[7]

Patient benefits include receiving higher quality GP care and more satisfaction, being better informed and more able to self-care, receiving more personal preventative care (such as immunisations and cancer screening), a reduced need for patients to repeat their story, and even having a lower rate of dying.[8,9,10]

GPs benefit significantly by working more with patients who more often follow medical advice and reveal confidences. GPs have more job satisfaction when working with patients they know and understand. Patients will be more likely to forgive GPs who make moderate mistakes, which can save much time and anxiety by preventing formal complaints. In particular, the practices of GPs who provide GP continuity may have a smaller workload because patients who have seen their regular GP have a significantly longer period of time before they need to consult again.[11,12]

Studies have found that GP continuity is significantly associated with fewer emergency department attendances and hospital admissions, particularly for older people with ambulatory care-sensitive conditions.[13]

Some disadvantages reported include that patients may wait too long to see their preferred GP when they needed to be seen earlier, or becoming dependent on their GP.[14]

Patients who have seen their GP repeatedly develop significantly more trust in them. They then confide more in their GPs, who become better informed and so acquire

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[7] World Health Organization. Continuity and coordination of care: a practice brief to support implementation of the WHO framework on integrated people-centred health services. Geneva: WHO, 2018. https://iris.who.int/handle/10665/274628

[8] Pereira Gray D, Sidaway-Lee K, White E et al. Continuity of care with doctors—a matter of life and death? A systematic review of continuity of care and mortality. BMJ Open 2018; 8(6):.e021161.

[9] Baker R, Freeman GK, Haggerty JL, Bankart MJ. and Nockels KH. Primary medical care continuity and patient mortality: a systematic review. British Journal of General Practice 2020; 70(698):e600–e611. https://doi.org/10.3399/bjgp20X712289

[10] British Medical Association. Conference of Local Medical Committees: Resolution on continuity. London: BMA, 2022.

[11] This has been calculated in the University of Cambridge to mean 5.2% fewer consultations among regular attenders. See Kajira-Montag H, Freeman M and Scholtes S (2023) Continuity of care increases physician productivity in primary care. INSEAD Working Paper No. 2023/23/TOM. http://dx.doi.org/10.2139/ssrn.3868231

[12] British Medical Association. Conference of Local Medical Committees: Resolution on continuity. London: BMA, 2022.

[13] Patients with dementia receiving GP continuity had 35% fewer episodes of delirium and 57% less incontinence through better quality GP prescribing. Delgado J, Evans PH, Pereira Gray D et al. Continuity of GP care for patients with dementia: impact on prescribing and the health of patients. British Journal of General Practice 2022; 72(715):e91–e98. https://doi.org/10.3399/BJGP.2021.0413

[14] One study reported a delay of seven days in the diagnosis of some cancers, but a later report concluded that GP continuity protects against delayed diagnosis. Health Services Safety Investigation Body. GP Continuity of care: delayed diagnosis in GP practices. London: HSSIB, 2023. www.hssib.org.uk/patient-safety-investigations/continuity-of-care-delayed-diagnosis-in-gp-practices/investigation-report/

progressively deeper understanding about the important social determinants that affect many consultations. Continuity enables GPs to tailor care to patients' individual circumstances, differing from GPs without continuity in hospital admission rates.[15]

Despite all these advantages, GP continuity is falling nationally and only a minority of practices provide it. This may relate to the internal organisation and resources of the practice. Every patient should have a named GP, and staff and systems should encourage patients to see their named GP when possible (accepting that with holidays, leave and part-time working this will not always be possible).

Measuring GP continuity in general practice enables practices to know where they stand and to track improvements.[16]

Quality of care

"In order to practise medicine in the 21st century, a core understanding of quality improvement is as important as our understanding of anatomy, physiology and biochemistry."

Stephen Powis, Medical Director, Royal Free London NHS Foundation Trust, 2015[17]

Quality of care requires continuous improvement through critical thinking and understanding the complex healthcare environment, application of a systematic approach to design, and testing and implementation of changes while measuring and reviewing outcomes. The aim is to understand and make a positive difference to patients by improving healthcare processes and services, including safety, effectiveness and experience of care.

This requires a working knowledge of:

- the principles of quality improvement
- how quality improvement benefits patients, staff and organisations
- the importance of context and organisational culture and how this impacts quality improvement work
- the importance of safety, teamwork and human factors

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[15] It takes seven consultations with the same GP before the average NHS patient reports that they have a 'deep' relationship with their GP. Mainous AG, Baker R, Love MM et al. Continuity of care and trust in one's physician: evidence from primary care in the United States and the United Kingdom. Family Medicine 2001;33(1):22–27.

[16] Some group practices with many part-time GPs, often using personal lists, report levels between 55% and 65% GP continuity (measured using the St Leonard's Index of Continuity of Care) and the highest levels are now over 80% GP continuity. Sayers LD, Richardson S, Colvin D et al. Realistic not romantic – real-world continuity in action. British Journal of General Practice, 2024;74(738):11–2. https://doi.org/10.3399/bjgp24X735909

[17] For example, https://www.aomrc.org.uk/wp-content/uploads/2016/06/Quality_improvement_training_better_outcomes_140316.pdf

- the importance of involving patients and carers in quality improvement work, and how to do this effectively
- the role of data to both assess improvement needs and measure improvements
- the effectiveness of small cycles of change
- the role of critical incident reporting and significant event analysis
- the common barriers that prevent teams from introducing clinical quality improvements and ways to identify and address these.

As a GP the following knowledge and skills are required to successfully undertake quality improvement activities:

- the role of systems in healthcare and understanding variation
- the likely differences in impact and sustainability between changing systems and changing within systems
- management theory and change concept models used to improve system and process reliability
- the effects of equipment, environment and human factors, including teamwork, culture and organisation, when designing or evaluating system safety or reliability
- application of root cause and systems analysis methods
- systems design principles that make it easy for healthcare workers to do the right thing or to make errors
- definition of processes, process mapping and assessment of process value
- outcome theories relevant to quality improvement in healthcare
- improvement models including Plan Do Study Act (PDSA) cycle and its application to healthcare
- setting a specific improvement aim statement including how much by when
- understanding of statistics and application of tools (such as run charts, process mapping, tally charts, Pareto charts, statistical process control charts, driver diagrams)
- clinical audit cycles, their role as quality improvement tools and their limitations
- methods for defining outcomes and how improving outcomes are linked to improving processes
- rationale for predicting outcomes before the test
- methods and practices for implementing a change and spreading, evaluating and sustaining improvement
- understanding stakeholders and the features of effective team communication and ways to influence others (that is, adopting an approach that is safe, inclusive, open and seeking common goals and consensus).

Patient safety

Quality in general practice can be considered in terms of the following six areas:

1. Safety: avoiding injuries to patients from the care that is intended to help them
2. Timeliness: reducing waits and sometimes harmful delays for both those who receive and those who give care

3. Effectiveness: providing services based on scientific knowledge to all who could benefit, and refraining from providing services to those not likely to benefit
4. Efficiency: avoiding waste, including equipment, supplies, ideas and energy
5. Equality: providing care that does not vary in quality because of personal characteristics such as gender, ethnicity, geographic location and socio-economic status
6. Person-centredness: providing care that is respectful of and responsive to individual patient preferences, needs and values.

It is important to be aware of each individual's own capabilities, values, ethics and accountability. There may be ethical tensions inherent in governance processes and resource allocation. Personal health and wellbeing must be maintained (for example, being immunised against common or serious communicable diseases where appropriate). It is important to protect patients and colleagues by managing risk while adhering to General Medical Council (GMC) fitness to practise guidance.

The working environment, systems in place (including information technology, the quality of data entry and communication between professionals) and behaviours of those working in health can all influence patient safety. It is important to review and reflect on the standards of practice and the care that is provided. The diversity of practices and the variation in patient demographics means a variety of measures is important for a broad, balanced view.

Clinical governance

Clinical governance is the system through which organisations are accountable for continuously improving the quality of services and standards of care. This involves recognising and responding to practice variation, understanding quality improvement and applying key tools such as clinical audit, significant event analyses and improvement methodology. Patient safety incidents, near misses and complaints are part of a jigsaw of information that can be used to share and learn lessons. Understanding how to monitor and when to apply tools and metrics to improve the quality of care is a key skill that should be learned and developed; this is essential for personal and collective professional development.

Working with patients and carers and promoting an organisational culture that allows them and all staff to be honest and raise concerns openly is essential. Some patient groups may be more at risk due to characteristics such as language, literacy, culture and health beliefs.

Immediate action must be taken when risks to safety happen (for example, an error in patient diagnosis, inadequate resources or a colleague who is not fit to practise and is putting patients at risk). Where appropriate:

- record or report the concern or incident
- offer help in emergencies

- admit when an error has occurred
- communicate openly with those involved
- apologise and explain fully to those affected
- advise on how patients can raise issues or complain
- personally reflect and share any learning.

Prescribing

The term 'prescribing', as used in the RCGP curriculum, describes many clinical activities closely related to safety and quality, including prescribing medicines, devices, dressings and other products, as well as advising patients on the purchase of over-the-counter medicines and other remedies. Prescribing may also be used to describe written information provided for patients (information prescriptions) or advice given. This topic guide will mainly focus on illustrating the general principles around the prescribing of prescription-only medicines.

The prescribing and monitoring of medications and other products needs to be understood, developed and explored to ensure high-quality, safe care.

The causes of medication errors include a wide range of factors, including:

1. Inadequate knowledge of patients and their clinical conditions
2. Inadequate knowledge of the medications
3. Calculation errors
4. Illegible handwriting on the prescriptions
5. Confusion regarding the name of the medication
6. Poor history-taking.

When prescribing, it is essential to follow the law and GMC guidance and to take account of licensing and local prescribing guidance as well as other relevant regulations. This includes clinical guidelines published by:

- National Institute for Health and Care Excellence (NICE) in England and Scottish Intercollegiate Guidelines Network (SIGN) in Scotland
- Scottish Medicines Consortium and Healthcare Improvement Scotland (Scotland)
- Department for Health, Social Services and Public Safety (Northern Ireland)
- All Wales Medicine Strategy Group (Wales)
- medical royal colleges and other authoritative sources of specialty specific clinical guidelines
- The British National Formulary (BNF) and the BNF for Children.

Prescribing can be considered in relation to the following three areas:

1. The prescriber
2. The patient (and/or carer where appropriate)
3. As part of a team and the wider system.

The prescriber

As a prescriber, your role is to:

- recognise and work within the limits of your competence
- maintain and develop your knowledge and skills in pharmacology, therapeutics and medicines management relevant to your role and prescribing practice
- be responsible for all prescriptions signed and for decisions and actions when prescribing, including if prescribing at the recommendation of another healthcare professional
- avoid prescribing for yourself or anyone with whom you have a close personal relationship wherever possible
- be aware of your own prescribing practice (using local data where appropriate) and the potential influence and expectation from peer, patient and commercial pressures
- consider the benefits, impacts and risks of prescribing in the following situations:
    - via telephone, video or online consultation
    - signing prescriptions generated by others
    - generating repeat prescriptions
    - when prescribing unlicensed medication
    - your own previous experience of medications.

The patient

Safe and effective prescribing always involves consideration of the patient and their unique circumstances. For example:

- Take into account prescribing in special conditions such as with patients who are pregnant, breastfeeding, have renal or hepatic impairment or palliative care needs, or for whom genetic test results/genomic information is available and relevant.
- Provide patients with patient information leaflets (PILs) and other reliable sources of information (such as the NHS website and resources bearing The Information Standard quality mark) where appropriate.
- When prescribing, consider whether requests for repeat prescriptions received earlier or later than expected may imply poor adherence, which could lead to inadequate treatment or adverse effects.
- It is important to apply effective strategies for communicating about and reducing the risk of dependency or addiction to medicines where this may occur (such as opioids, benzodiazepines and gamma-aminobutyric acid (GABA) drugs) as well as supporting and managing patients who have become dependent on medications, seeking specialist advice and intervention when appropriate.
- If you consider that a requested prescription would not be of overall benefit, you should explore the reasons for the request with the patient or carer. If you still consider the prescription would not be of overall benefit, or is likely to be harmful, you should not prescribe it and should explain the reasons for your decision. You

should also explain what other options are available (including the option for the patient to seek another opinion).
- Where patients do not take a medicine as prescribed, a discussion to understand the reasons for this should take place and any further information or reassurance provided where appropriate. The aim should be to reach a shared understanding and an agreed course of treatment the patient is able and willing to adhere to.
- Consider the impact of polypharmacy and, where appropriate, consider support structures such as carers, district nurses or the use of dosette boxes.
- Under current rules, the NHS only accepts responsibility for supplying ongoing medication for temporary periods abroad of up to three months. If a patient will be abroad for longer, then the patient should be given a sufficient supply of their regular medication to enable them to get to their destination and find an alternative supply.
- If prescribing for patients who are going abroad or who are overseas, consider how the patient's condition will be monitored. Also consider whether there is a need for additional indemnity cover or registration with a regulatory body in the country in which the prescribed medicines are to be dispensed.
- Advise patients on exemptions from prescription charges where appropriate (a full list of exempted conditions is available on the NHS Business Services Authority website).
- Acknowledge the benefits of drug switching but also the potential confusion that may be experienced if the colour and shape of medicines are changed and the impact repeated switching may have on trust and compliance.

The team and wider system

Safe and effective prescribing also requires an understanding of the organisational systems in place for medication prescribing, issuing, monitoring and review:

- Ensure drugs are received, stored and disposed of safely and appropriately.
- Make use of electronic and other systems that can improve the safety of prescribing (for example, by highlighting interactions and allergies and by ensuring consistency and compatibility of medicines prescribed).
- Work with pharmacists and consider their role in delivering medication, conducting medicines reviews, explaining how to take medicines and offering advice on interactions and side effects.
- If unsure about interactions or other aspects of prescribing, seek advice from experienced colleagues, including pharmacists, prescribing advisers and clinical pharmacologists.
- Information about medicines should accompany patients (or quickly follow) when patients are transferring between care settings (such as hospital, nursing or residential placement).
- Ensure any changes to medications (for example, following hospital treatment or due to blood or microbiology results) are reviewed and quickly incorporated into the patient's record.

- Inform the Medicines and Healthcare products Regulatory Agency (MHRA) about suspected adverse reactions and incidents using the Yellow Card scheme. Where appropriate, inform the patient's GP and the pharmacy that supplied the medicine.
- Inform the patient's GP if prescribing for a patient but you are not their GP.
- Drug switching may be externally recommended (for example, by specialists or integrated care systems) for quality reasons such as efficacy or efficiency. Consider the impact of drug switching in the patient's best interest and the impact of cost saving on the wider system.
- Consider the impact antibiotic prescribing has on the wider system with regards to drug resistance.

How to learn this area of practice

Work-based learning

It is essential that GP registrars gain a good understanding of quality improvement, prescribing and patient safety before completing training. Primary care settings, both inside and outside the practice, are ideal environments to learn and apply the key principles.

All GP registrars should complete a quality improvement project relating to patients in their training practice and actively contribute to the practice's significant event audit meetings.

Recognising this as an opportunity for reflection as well as possible celebration of good care is a particular feature of primary care teams.

Observing the systems developed by a practice to manage repeat prescribing and exploring the team's decisions about how to manage risk in this process can provide valuable insights. It is also worthwhile considering the variation in impact and uptake of NICE guidance. Likewise, the processes that occur during a consultation when a decision to refer is made, as well as the practical systems in place to achieve the referral, are ideally explored within the primary care setting. Reflecting on cases that illustrate a delay in diagnosis using tools such as significant event analysis (SEA) can help in understanding the complex process of diagnosis within both the primary and the secondary care setting.

Learning about the differences between primary and secondary care will help the GP registrar gain a broader understanding of the principles and practice of clinical governance and how to maximise benefit for patients. There should be opportunities to undertake clinical audits and critical event analysis with hospital colleagues.

Root cause analysis (RCA) is the standard risk tool used in secondary care and familiarity with its application can be best observed in this setting. GP registrars should be able to describe the particular role of risk managers in acute trusts and this is best appreciated while in this environment.

The primary–secondary care interface is especially vulnerable to patient safety incidents.

Observing and understanding how different systems and processes manage this and other key transitions of care (such as between health and social care) can often reveal areas for quality improvement.

Learning with other healthcare professionals

Primary care teams are highly sophisticated multiprofessional groups. The opportunities for you to participate in shared learning with colleagues have expanded, particularly following the extension of non-medical prescribing and extensive collaborative working on long-term conditions and integrated care.

In addition, you have many opportunities in primary care to discuss clinical governance with nurses, allied health professionals and managers, all of whom should be engaged in the practice's education and clinical governance programmes.

Unscheduled care in the community, both in-hours and out-of-hours, is provided by a variety of different contractors using the skills of practitioners such as paramedics, emergency care practitioners, urgent care centres, crisis mental health teams and walk-in centres. These are ideal places for you to see and understand the use of a skill mix in healthcare and to compare and contrast the benefits and disadvantages of each option, including the use of telephone calls triage and calls using clinical pathways (such as the 111 service).

Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- Drug monitoring requirements
- Prescribing in multimorbidity, including polypharmacy
- Safe prescribing and medicines management (including MHRA alerts)

Simulated Consultation Assessment (SCA)

- Your practice nurse sustains a needlestick injury while taking blood from an intravenous drug user
- An elderly woman, whose international normalised ration (INR) is within the therapeutic window for only 40% of the time, attends for review
- A middle-aged man who has recently registered attends for a review of his repeat medication, which lists nine different medications

Workplace-based Assessment (WPBA)

- Log entry about a significant event in which you have been directly involved
- Case discussion on the workflow of blood results for patients taking disease-modifying anti-rheumatic drugs (DMARDs) to minimise the risk of harm
- Completing a Quality Improvement Project (QIP) on a locally identified need, identifying intended outcomes, implementing the changes, measuring their impact and disseminating your learning
- Complete the Prescribing Assessment and reflect on any errors identified

Leadership, management and administration

About this topic guide

This topic guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you understand important issues relating to leadership and management by describing the key learning points. It also contains tips and advice for learning, assessment and continuing professional development (CPD), including guidance on the knowledge relevant to this area of general practice.

Each topic guide is intended to illustrate important aspects of everyday general practice, rather than provide a comprehensive overview of each clinical topic. It should therefore be considered in conjunction with other topic guides and educational resources.

Summary

- The fundamental purpose of clinical leadership is to improve health outcomes and quality of care for your patients, so it is an essential part of being a doctor.
- Your own personal characteristics and skills determine your ability as a leader and team manager and have a direct influence on the care your patients receive.
- Leading and managing improvement in healthcare systems is just as important as, and complementary to, acting on behalf of an individual patient. Effective primary care requires the co-ordination and commitment of a multiprofessional team working in partnership with patients.
- Leadership is everyone's responsibility and there is a wealth of evidence to show that a well-led organisation is a safer environment to work in and to receive care.
- GPs are responsible in taking on a growing range of leadership and management roles in the NHS, from running a practice through to leading primary care networks, GP federations and 'commissioners' groups.

The role of the GP as a leader and manager in healthcare

Good leadership practice has a direct impact on safe and effective patient care. The culture established by the leaders of a healthcare organisation is essential to enable a team that is able to work together to achieve the best outcomes for all patient populations. Being able to share knowledge within teams and the wider community (education, mentoring or change management) is a central principle of shared leadership.

The General Medical Council (GMC) *Generic professional capabilities framework (2017)* includes the domain of 'Capabilities in leadership and team working'. This requires doctors in training to demonstrate that they can lead and work effectively in teams by:

- demonstrating an understanding of why leadership and team working is important in their role as a clinician
- showing awareness of their leadership responsibilities as a clinician and why effective clinical leadership is central to safe and effective care
- demonstrating an understanding of a range of leadership principles, approaches and techniques and applying them in practice
- demonstrating appropriate leadership behaviour and an ability to adapt their leadership behaviour to improve engagement and outcomes
- appreciating their leadership style and its impact on others
- actively participating and contributing to the work and success of a team (appropriate followership)
- thinking critically about decision-making, reflecting on decision-making processes, and explaining those decisions to others in an honest and transparent way
- supervising, challenging, influencing, appraising and mentoring colleagues and peers to enhance performance and to support development
- critically appraising performance of colleagues, peers and systems and escalating concerns
- promoting and effectively participating in multidisciplinary and interprofessional team working
- appreciating the roles of all members of the multidisciplinary team
- promoting a just and fair, open and transparent culture
- promoting a culture of learning and academic and professional critical enquiry.

Emerging issues

The UK population is changing with new and ever-increasing capability to treat and manage illnesses that previously caused great disability or death. At the same time, people are living longer, with increasing levels of comorbidity and long-term conditions and limited resources within the NHS. Emerging from the Covid pandemic has already created further pressure on these finite resources and this is likely to be a significant consideration in the coming years. GPs shape and adapt to the future plans for the NHS, understanding how each part of the health service is working to deliver the planned outcomes.

Leading in healthcare post pandemic will require GPs to model new ways of working to better integrate services and teams delivering and co-ordinating care.

As a GP you have a wider social responsibility to use healthcare and environmental resources economically and sustainably. In addition to their business and employer responsibilities in local practices, GPs also perform a growing range of leadership and management roles in other NHS organisations.

Leadership frameworks and models

There are a range of leadership frameworks and models available to help GPs engage in change processes. These processes are key to GPs performing in their role as leaders and supporting others' leadership development. They also provide structure and method for leadership activities to enable safe and effective patient care.

In engaging with change processes, patients and staff will look to GPs to influence and help determine the future direction of services. In leading and managing change there is a need for you as a GP to understand yourself and how you can work effectively with your teams and others and take people with you. This means contributing to the wellbeing of yourself, your colleagues and your patients through good management of all those involved in the provision of care and through the design of robust systems that encourage good care and effective, sustainable and environmentally sensitive use of resources.

Knowledge and skills guide

Many GPs take on the additional challenge and responsibility of running their own practice, acting as the employer of a team of administrative and clinical staff and taking on financial responsibility for their business. This requires GPs to develop a wider range of business and management capabilities than doctors in most other medical specialties.

Common leadership and management areas in general practice

There should be a working knowledge of the following topics. Although this is not an exhaustive list, it includes:

- equality and diversity, including disability registration, rights and access and discrimination law, considering all protected characteristics outlined in national legislation relating to equality
- probity, such as gifts, conflicts of interest, financial probity and the effect of payment by results
- NHS complaints procedure and principles, litigation and medical negligence, raising and acting on concerns about patient safety and freedom to speak up
- identifying and addressing poor practitioner performance
- welfare of colleagues, such as health and conduct.

National regulations, contractual and legal frameworks

- Medical indemnity applied to primary and secondary care, including medical negligence
- Other acts of parliament and regulations relevant to medical practice, including (but not limited to):

    - controlled drug regulations including registering, prescribing, storing and destruction
    - data protection, including the Caldicott Principles, the General Data Protection Regulation (GDPR), record-keeping, legal basis and consent models for information sharing, lost records, privacy and fair processing notices, sharing electronic records, storing and destroying medical records
    - health and safety at work regulations relevant to general practice, including infection control, vaccine storage, decontamination and spillage (Control of Substances Hazardous to Health (COSHH) Regulations), safe practice and methods in the working environment relating to biological, chemical, physical or psychological hazards that conform to health and safety legislation
    - NHS prescription regulations
    - Performers Lists, regulatory board regulations and GMC guidance regarding fitness to practice.

Administration

Administration is an important part of general practice. What follows are examples of key administrative roles. This is not an exhaustive list but includes:

- death and cremation certificates, including regulations on completing certificates, when to refer to the coroner or procurator fiscal
- general administration of do not attempt cardiopulmonary resuscitation
- (DNACPR) forms, including safekeeping in the community and appropriate review of these
- insurance reports, including for life insurance, critical illness insurance (personal medical attendant reports) and travel insurance
- notification of infectious diseases
- power of attorney paperwork
- private certificates and medicals, including principles such as disclosure of information, for example, firearms, insurance cancellation, probation, adoption, critical Illness cover, fitness to fly or travel, fitness to drive
- registration, including visual impairment and disability
- relevant benefits and allowances, including end-of-life and maternity support
- relevant regulations under mental capacity and mental health acts
- statements of fitness to work certificates and related sickness regulations, including principles of returning to work.

Practice management and business matters

You should have a working knowledge of:

- contract requirements such as clinical outcome frameworks and enhanced services

- external assessment and inspections (for example, by the Care Quality Commission (CQC), training inspections, the Care Inspectorate)
- federations and GP networks
- financial aspects of a medical practice
- the Freedom of Information (FOI) Act and information governance, including Caldicott Guardians, management of data, confidentiality
- information technology to facilitate clinical and business practice
- key issues of being self-employed, including partnerships and locum work
- key issues of employing or being employed
- legal and contractual frameworks for provision of primary care services in all four nations
- patient participation groups
- patient registration and eligibility for NHS care
- patient access to medical records
- pensions
- practice development plans and strategy, including contributing to development of safe systems
- principles of commissioning
- principles of employment regulation, including appointment, discrimination, redundancy and dismissal, and occupational health for staff, including immunisation, ill health and infectious disease
- provision of additional services (such as dispensing medication, travel clinics)
- record-keeping, including clear, accurate, legible and contemporaneous record-keeping and amending records
- staff development, training, and appraisal
- UK health priorities and regional and local variations
- workload issues and major incident planning, and the role of the GP.

How to learn this area of practice

Work-based learning

Undertaking a leadership activity provides an opportunity for GP registrars to provide evidence linking to leadership and teamwork. This will provide a deeper level of integration within the organisation, benefits for the practice, for example system changes leading to greater efficiency, and benefits for patients relating to improvements in patient safety.

Doctors will enter GP training with a range of experience in leadership and it is important for them to consider, in conjunction with their clinical and educational supervisor, how to develop these skills over the course of their GP training and beyond. It is important that an environment is created to encourage leadership activities, facilitating the process and providing opportunities and support, with an openness to feedback.

Suggested activities might include:

- chairing meetings
- running an educational session
- designing clinical protocols or pathways of care
- producing information and resources for patients such as webpages or leaflets.

Quality improvement projects

The GMC expects all doctors to take part in systems of quality improvement. Quality improvement projects should be led by GP registrars, supported by their educational supervisor, and include working as a team with other members of the practice to create a sustainable change.

The topic for a 'mini-QIP' could be a process or system, clinical care issue or educational initiative that ultimately has an impact on the safety of patients.

It can be harder to carry out quality improvements in secondary care in a short timescale due to the larger scale and complexity of the organisation – but it is possible to become involved with how changes are introduced. If you have the opportunity to speak to or shadow someone introducing a project you can learn from observing how service changes can be carried out even in a large organisation.

Self-directed learning and formal learning

You can find an eLearning module(s) relevant to this topic guide at elearning for healthcare.

Learning with colleagues

Leadership and quality improvement are always best learned with others from as wide a clinical background as possible. It is essential to get used to seeing how others (patients, clinical and managerial colleagues) see the problem to be able to find a solution. Obtaining feedback as you learn is essential, as is the ability to give supportive and constructive feedback to others.

Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- Statutory legislation such as information governance and confidentiality
- Responding to patient safety concerns
- Data interpretation related to systems and improvement of practice

Simulated Consultation Assessment (SCA)

- A patient who is a receptionist in the practice requests sick leave because she is being bullied by the practice manager
- A patient newly diagnosed with essential hypertension asks why the drug he has been prescribed is not recommended as the first-line choice in the current guidelines
- A new district nurse asks advice on the management of an uncomplicated sore throat in a housebound patient with a previous stroke

Workplace-based Assessment (WPBA)

- A Quality Improvement Project (QIP) looking at the number of salbutamol inhalers prescribed to adults and reviewing patients who may need additional treatment
- A learning log on leading the afternoon session on the vocational training scheme (VTS) course
- Attending a course on leadership skills for the future GP
- Completing a Leadership Multi-Source Feedback (MSF) to gain colleague feedback on personal leadership behaviours

Population and planetary health

About this topic guide

This topic guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you understand important issues relating to population and planetary health by illustrating the key learning points with a case scenario and questions. It also contains tips and advice for learning, assessment and continuing professional development (CPD), including guidance on the knowledge relevant to this area of general practice.

This topic guide should be considered in conjunction with other topic guides and educational resources, including those on smoking, alcohol and substance misuse, long-term conditions (including cancer), infectious diseases and travel health, and evidence in practice, research, teaching and lifelong learning.

Summary

The health of individuals is deeply interconnected with the health of populations and the planet.

Population health can be defined as "an approach aimed at improving the health of an entire population. It is about improving the physical and mental health outcomes and wellbeing of all people within and across a defined local, regional, or national population, while reducing health inequalities. It includes action to reduce the occurrence of ill health, action to deliver appropriate health and care services and action on the wider determinants of health. It requires working with communities and partner agencies."[18] There is no widely agreed distinction between the terms 'population health' and 'public health'.[19] Some regard 'population health' as making it clearer that the remit and scope of action are not limited to public health professionals.[20] For the purposes of the competences set out in this topic guide, the distinction between the two terms is less important.

Global health considers the health of populations in a global context. Many of its basic principles are relevant to your daily practice – for example, global policies that affect population health, universal health coverage and the relationship between globalisation and infectious diseases such as Covid.

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[18] The King's Fund. A vision for population health: Towards a healthier future. 2018. www.kingsfund.org.uk/insight-and-analysis/reports/vision-population-health

[19] For examples of differing definitions, see MPH Online. Population health vs public health. www.mphonline.org/population-health-vs-public-health and Advanced Data Systems Corporation. The difference between population health and public health. www.adsc.com/blog/the-difference-between-population-health-public-health

[20] The King's Fund. A vision for population health: Towards a healthier future. 2018.

Planetary health (also linked to 'one health' and 'sustainable health') can be defined as "the health of human civilization and the state of the natural systems on which it depends".[21] As a field, it aims to understand and address the human health impacts of human-caused disruptions to the earth's natural systems.[22] Disruption of these natural systems through, for example, climate change and biodiversity loss, has a profound impact on the social and environmental determinants of human health. Healthcare services are a major contributor to environmental damage; addressing this is also part of planetary health. Protecting those things that give us health can create positive feedback loops that support the health of our patients and population. GPs therefore have a wider role in protecting the planet and its inhabitants, resources and ecosystems.

These is no single accepted definition of these terms, so the definitions used here are to aid understanding and contextualise learning outcomes.

Applying population, global and planetary health approaches to primary care involves understanding complexity and systems thinking. This, along with unfamiliar subject matter, the scale of the problems that need addressing and possible tensions between protecting individual and community health, may seem daunting or beyond your sphere of influence as a GP. However, every individual primary care encounter can be viewed through the wider lens of the communities and planet in which we are embedded; doing this will allow you to practise, reflect on and reinforce the skills and knowledge outlined below.

The role of the GP in population and planetary health

As a GP, your role is to:

- participate in protecting and improving the health of populations
- apply an understanding of the wider determinants of health to address health inequalities and inequities[23]
- use resources and services judiciously, maximising their effectiveness while minimising harm to people and the planet
- assess, monitor and address the needs of local population groups
- understand, assess and communicate risk to individuals and local populations
- advocate for measures to improve the health of populations and the planet as well as individuals.

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[21] Whitmee S, Haines A, Beyrer C et al. Safeguarding human health in the Anthropocene epoch: report of The Rockefeller Foundation–Lancet Commission on planetary health. The Lancet 2015; 386(10007): 1973–2028.

[22] Planetary Health Alliance www.planetaryhealthalliance.org/planetary-health

[23] Health inequities are avoidable, unfair and systematic differences in health between different groups of people. The term 'health inequality' tends to be used to refer to health differences alone, but sometimes also includes social injustice in its definition (see for example The King's Fund What are health inequalities? www.kingsfund.org.uk/publications/what-are-health-inequalities).

Knowledge and skills guide

Consider the following areas within the context of primary care.

Health improvement

Promoting health and preventing disease

- The concepts of 'health', 'wellbeing' and 'lifestyle' and how these terms may be understood by individuals and communities in their own cultural contexts
- Principles of primary, secondary and tertiary prevention of disease
- Principles of screening (such as Wilson's criteria) and their application in practice
- Principles of sustainable clinical practice, including:
    - prevention
    - patient empowerment and self-care
    - lean systems and pathways (ensuring the right patients are treated with the most effective treatments, minimising low-value activities)
    - low-carbon alternatives (for example, when prescribing inhalers)
- Impact of human activity (including the healthcare industry) on the environment, and its subsequent impact on human health
- Health co-benefits of environmental sustainability (that is, measures that protect both human health and the environment) relevant to primary care – for example, reducing unnecessary investigations or treatments, sustainable diets, walking or cycling instead of car use
- For a range of common or important conditions (such as cancer, heart disease, diabetes, falls, sleep problems, stress, substance misuse and mental health conditions) consider the following:
    - risk factors for these conditions in healthy individuals and populations
    - influence of socio-economic, political, geographical, environmental and cultural factors
    - impact of these factors on health, including the evidence base and in specific populations such as pregnant women, people with mental ill health and other vulnerable groups
    - individual and population-level interventions, including pharmacological and non-pharmacological approaches (for example, diet and physical activity for weight management, engagement with nature for stress or blood pressure management)
- Effects of an individual's health behaviours on their wider social network and the wider ecosystem
- Approaches to behaviour change and their relevance to health promotion and self-care
- Social prescribing and 'green social prescribing' (linking people to nature-based interventions and activities through social prescribing)
- Ethical issues around prevention, presymptomatic testing, therapeutic interventions in asymptomatic individuals, lifestyle choices, resource use and

allocation, tensions between optimising the health of individuals and communities, and balancing the needs of humans, other living beings and the environment

Wider determinants of health and health inequalities

- The multiple social, environmental and economic determinants of health[24] and their global nature (for example, air and water quality, climate, conflict and migration, education, gender, housing and the built environment, pollution, poverty, race and religion)
- Major direct and indirect health effects of climate change and their mechanisms (for example, extreme weather events, heat or cold stress, air and water pollution)
- The influence of ageing, dependency, multiple comorbidities and frailty on individual and population healthcare needs
- The relationship between the social and environmental determinants of health, planetary health and health inequalities[25]
- The 'inverse care law'[26]
- The health of populations at risk of marginalisation and unequal outcomes, including refugees, asylum seekers, institutionalised groups, sex workers, homeless people, travellers, undocumented migrants and victims of trafficking and torture
- Risk factors and safeguarding for vulnerable patient groups (for example, elderly people who are frail, children at risk of accidents and people at risk of abuse including at home or in institutions)
- Positive impact of sustainable practices on health inequalities (for example, increasing access to green spaces)

Health protection

- Communicable diseases, including:
    - disease prevention programmes for common and important communicable diseases
    - NHS screening and immunisation programmes
- Environmental hazards, including:

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[24] See Dahlgren and Whitehead's 1991 model of the social determinants of health in Policies and Strategies to Promote Social Equity in Health. Stockholm, Sweden: Institute for Futures Studies. https://core.ac.uk/download/pdf/6472456.pdf.

[25]Acheson, D. Independent Inquiry into Inequalities in Health. London: HMSO, 1998 - https://www.gov.uk/government/publications/independent-inquiry-into-inequalities-in-health-report, Black, D. (Chair of working group). Inequalities in Health. London: DHSS, 1980 – summary available at https://navigator.health.org.uk/theme/black-report-health-inequalities, Marmot, M. Fair Society, Healthy Lives: The Marmot Review: Strategic Review of Health Inequalities in England Post-2010. London: 2010: https://www.gov.uk/research-for-development-outputs/fair-society-healthy-lives-the-marmot-review-strategic-review-of-health-inequalities-in-england-post-2010, Tudor Hart, J. A New Kind of Doctor. London: Merlin Press, 1988, Marmot, M. et al. Health Equity in England: The Marmot Review 10 Years On. London: Institute of Health Equity, 2020 - https://www.instituteofhealthequity.org/resources-reports/marmot-review-10-years-on

[26] For example, https://www.health.org.uk/reports-and-analysis/reports/tackling-the-inverse-care-law

    - air pollution (for example PM 2.5, nitrogen oxides) and its impacts on human health
    - water pollution (for example, toxic levels of pharmaceutical products in rivers)
    - impact of planetary health on infectious diseases (for example Covid, zoonoses, distribution of malaria and Lyme disease, waterborne diseases)
- Health surveillance, including:
    - notifiable diseases
    - health surveillance systems involving GPs (for example, RCGP weekly returns service)
    - NHS test and trace systems
    - the role of the UK's health protection agencies in managing outbreaks of infection
- Workplace health protection, including:
    - health benefits of work
    - occupational hazards and risk factors (for example, occupational cancers, respiratory diseases, infectious diseases, musculoskeletal disorders, risks of extreme temperatures, shift work)
    - return to work and rehabilitation after illness or accident
    - fitness for work certification and guidance on its use
    - roles of other health professionals (such as occupational health staff, physiotherapists and counsellors) in managing work and health issues
    - safe personal working practices (for example, use of personal protective equipment, infection control, ensuring safety of others)

Health systems and services

- Health needs assessment of local populations and subgroups (for example, working families, 'sedentary' children, smokers, pregnant women, older adults, Black, Asian and minority ethnic (BAME) communities, those living in poverty, homeless people)
- Personalised care principles to improve population and planetary health (doing what matters to patients rather than doing too much medicine that may cause harm)
- Implementation of health promotion programmes (for example, nutrition, exercise on prescription, alcohol and substance misuse, smoking cessation, psychological therapies)
- Health screening and population screening, including risks and benefits of screening programmes
- Leadership and participation in service design and implementation, including environmental impacts of patient pathways
- Environmental, social and economic sustainability of health services through measures such as:
    - lean pathways
    - carbon footprinting of different elements of primary care (including prescribing, travel, heating, paper, plastic)

    - appropriate changes to prescribing (for example, use of dry powder inhalers, deprescribing) and patient pathways
    - appropriate planning for, and adaptation of, primary care premises, purchasing, processes and waste management
- Structure, governance and financing of health services in the UK and their effects on access to healthcare
- Role of community health services, public health, third sector, voluntary and non-governmental organisations in UK population health
- Relevant national and global public health policies and guidelines that impact on primary care practice (for example, obesity, tobacco control, housing, environment, immunisation, infection control)
- Resource allocation and prioritisation in healthcare, including legal responsibilities for care provision

Health communication

- Use of a range of communication methods and styles to take into account differences in health literacy, including in colleagues and staff
- Personalised care and relationship-based approaches to conversations with patients (for example, about conditions and their treatments, healthier living, self-care, sustainability)
- Risk–benefit conversations in relation to health (for example, immunisation, screening, stopping smoking, preventative care, medications, environmental exposures). Consider risks beyond the individual, such as to the wider community and planet
- Respect for the role and value of different world views, health beliefs and types of knowledge; integration of experiential knowledge with evidence-based practice; the concepts of cultural competence and cultural humility

Additional global health skills and knowledge

- Major causes of global morbidity and mortality
- Impact of globalisation on health
- Key actors in global health, including international organisations, the commercial sector and civil society

Additional planetary health skills and knowledge

- Relevant basic terminology and science of climate change
- Relevant planetary health agreements and policies (for example, UN Conference of the Parties (COP) agreements, UN Sustainable Development Goals and the NHS net zero strategy)
- Planetary health theoretical models (for example, systems thinking, characteristics of sustainable health systems and Sustainability in Quality Improvement (SusQI))

- The value of assessing outcomes for patients and populations in relation to their environmental, social and financial impacts

Case discussion and questions

Jay Thomas is a 45-year-old self-employed taxi driver. He comes to you with a three-month history of intermittent cough and chest tightness. You see a diagnosis of asthma in his GP record, for which he has been prescribed salbutamol and steroid metered-dose inhalers. Jay reports that he only uses the inhalers irregularly, as they do not seem to help much. He smokes 15 cigarettes a day and is overweight. He lives in a third floor flat in a dense urban area with high air pollution. He lives with his wife, two teenage children and elderly mother.

Jay wears a face covering while at work; however, he is still hesitant about having a Covid-19 vaccine because he has read on social media that vaccines have terrible side effects that would stop him from being able to work. He acknowledges that life is very stressful right now. He requests a letter of support from you to apply for rehousing as his flat is poorly ventilated and has mould inside, and he believes that his symptoms are due to this.

Questions

These questions are provided to prompt you to consider the key points of the case. They can form the basis for a case discussion with your educational supervisor and will assist you in writing reflective entries in your ePortfolio. The questions are examples to trigger reflection and are not intended to be comprehensive.

Core capabilities	Questions
Fitness to practise This is about professionalism and the actions expected to protect people from harm. This includes the awareness of when an individual's performance, conduct or health, or that of others, might put patients, themselves or their colleagues at risk.	How might Jay's health beliefs affect my professional behaviour towards him? As Jay's GP, how important is it for me to role-model a healthy lifestyle? How involved should I be in helping to resolve Jay's housing problems; to what extent are they for him to resolve himself?
An ethical approach This is about practising ethically with integrity and a respect for equality and diversity.	To what extent is Jay's smoking a lifestyle choice or an addiction requiring treatment? What kinds of unconscious bias might a GP have in a consultation like this?

	Do the ethos and culture of my workplace encourage preventative care and health promotion?
Communicating and consulting This is about communication with patients, the use of recognised consultation techniques, establishing and maintaining patient partnerships, managing challenging consultations, third-party consulting, the use of interpreters and consulting modalities across the range of in-person and remote methods.	What techniques can I use to explore Jay's understanding and beliefs about his health? What do I need to know about Jay's health literacy, including digital health literacy? What health information would enable or motivate Jay to change his lifestyle to improve his health? How do doctors and patients make their conversations about factors such as smoking, diet, physical activity, stress and alcohol honest and productive?
Data gathering and interpretation This is about the gathering, interpretation and use of data for clinical judgement, including information gathered from the history, clinical records, examination and investigations.	What other information do I need to understand the cause of Jay's respiratory symptoms? Is there likely to be a single cause? What other information do I need to understand the impact of Jay's respiratory symptoms on his health and wellbeing? How would I assess Jay's cardiovascular and mental health risks? How can the impact of wider environmental risk factors (such as air pollution and poor housing) on Jay's symptoms be assessed?
Clinical examination and procedural skills This is about clinical examination and procedural skills. By the end of training, the GP registrar must have demonstrated competence in general and systemic examinations of all the clinical curriculum areas, including the five mandatory examinations and a range of skills relevant to general practice.	What other examinations might be needed in the context of Jay's symptoms or risk factors? What bedside tests might I consider performing? Do I know what different types of inhaler there are and how to teach their correct use?

Decision-making and diagnosis This is about having a conscious, organised approach to making diagnosis and decisions that are tailored to the particular circumstances in which they are required.	What differences might there be between my health promotion agenda and Jay's perspective on his health? How could I support Jay in deciding how to manage his stress? What decisions do I need to make with Jay in relation to enabling his choices, improving his health and environmentally sustainable options?
Clinical management This is about the recognition and a generalist's management of patients' problems.	What interventions do I know about that help with smoking cessation and weight reduction? What is the impact of metered-dose inhalers on the environment? What non-drug management options might Jay consider? What are the potential benefits to Jay of social prescribing or 'green prescribing' such as nature exposure, and how do I practically make them available to him?
Medical complexity This is about aspects of care beyond the acute problem, including the management of comorbidity, uncertainty, risk and health promotion.	What social or environmental factors might be contributing to Jay's problems (for example, air pollution, mould, precarious employment)? How might personalised care planning and supported self-management help to reduce risk and the need for health services? How will Jay and I together manage the uncertainty around the different factors contributing to his symptoms?
Team working This is about working effectively with others to ensure good patient care and includes sharing information with colleagues and using the skills of a multiprofessional team.	Who else in the primary health care team is involved in health promotion and disease prevention? What roles might care coordinators, link workers or health coaches play in supporting and motivating individuals such as Jay? What are the pathways for effectively accessing further support for Jay for his obesity, smoking, stress or respiratory symptoms?

	How do GPs work with community health services and public health colleagues in managing the health of populations?
Performance, learning and teaching This is about maintaining the performance and effective CPD of oneself and others. The evidence for these activities should be shared in a timely manner within the portfolio.	What are the characteristics of a good screening programme? What evidence-based population-level tobacco control measures do I know about (for example, taxation, the World Health Organization Framework Convention on Tobacco Control)? How might sustainable quality improvement be relevant to a case like this?
Organisation, management and leadership This is about understanding how primary care is organised within the NHS, how teams are managed and the development of clinical leadership skills.	How can I make changes to our practice's services to encourage prevention, self-care, healthy living and environmental sustainability? What role can I play in influencing the development of services for population health and preventative care? What might be the organisational challenges to introducing low-carbon respiratory products? How could these be addressed?
Holistic practice, health promotion and safeguarding This is about the ability of the doctor to operate in physical, psychological, socio-economic, and cultural dimensions. The doctor is able to take into account the patient's feelings and opinions. The doctor encourages health improvement, self-management, preventative medicine and shared care planning with patients and their carers. The doctor has the skills and knowledge to consider and take appropriate safeguarding actions.	Do I think Jay is in a good state of health? What might 'health' and 'wellbeing' mean to Jay? What assumptions have I made and what do I know about Jay's social, cultural, and ethnic background? Might this influence the consultation and clinical outcomes? If so, how? Where does Jay's knowledge about health come from and why is this important to this consultation? How might Jay's social circumstances increase his health risks or influence his uptake of services and health and lifestyle advice?

Community health and environmental sustainability This is about the management of the health and social care of the practice population and local community. It incorporates an understanding of the interconnectedness of health of populations and the planet.	What are the population characteristics of the community I work in, and how might this affect the types of health problem seen in practice? How does Jay's health compare with that of the local population? How might I find the data needed to assess this? How do I identify groups with poor health within my practice population? Where locally can Jay take his current metered-dose inhalers when he has finished with them to ensure their appropriate disposal? Which would be more beneficial (and to whom): a one-stop community asthma service that GPs can refer to, or extra paid nurse time for chronic disease management in each practice? Why?

How to learn this area of practice

Work-based learning

Population and planetary health skills can be learned in a primary care setting. All clinical encounters are an opportunity to apply the principles of population and planetary health. For example, as a GP registrar you should be involved in your practice's health promotion, prevention and screening activities as part of the multiprofessional healthcare team. For your Quality Improvement Project, you can take a SusQI approach.

You may have liaised with your local public health team, health protection unit or public health office, or been involved in mass vaccination programmes –for example, during the Covid-19 pandemic. As a GP registrar, you may also wish to undertake formal attachments in these organisations to give you an insight into the work they do and how it links to primary care.

While working in hospital placements you will find many opportunities to explore population health activities such as screening (for example, breast screening services), infection control and occupational health. There will be opportunities to consider the impact of prescribing and deprescribing decisions beyond discharge, and the need for personalising ongoing care. There may also be scope to engage with a sustainability team at the hospital trust.

Self-directed learning

Population and global health

- elearning for healthcare includes Health Education England's population wellbeing portal, which covers topics such as health inequalities, prevention, screening and health improvement.
- The King's Fund has an overview of population health.
- The Faculty of Public Health is the standard-setting body for specialists in public health.
- The RCGP Physical Activity Hub includes information on how to embed physical activity in primary care for patients and staff.
- The Faculty of Sport and Exercise Medicine UK has useful resources on physical activity. Moving Medicine, initiated by the faculty, gives practical advice on how to integrate physical activity into everyday consultations.
- National and regional population health data is available via NHS Digital and the government Fingertips public health profiles website.
- The RCGP offers several eLearning courses on population health topics.
- The UK Health Security Agency has information on health protection and the Department of Health and Social Care website has information on health improvement and inequalities.
- The UK Health and Safety Executive website is an excellent central resource on health and safety in the workplace.
- The United Nations website contains information on the Sustainable Development Goals.
- The World Health Organization (WHO) is a key resource for global health, including Covid-19 and other infectious diseases, tobacco control and healthy food policies, climate change and the global burden of disease.

Planetary health

The RCGP has a comprehensive range of resources on sustainable development, climate change and green issues relating to health. These include links to:

- the Centre for Sustainable Healthcare (CSH), including a course on sustainable primary care and resources relating to sustainable quality improvement
- Greener Practice, which includes information ranging from how to change metered-dose inhalers to dry powder inhalers, to patient leaflets on nature-based interventions, and the Green Impact for Health (GIFH) Toolkit to help GPs improve planetary health in practice
- the UK Health Alliance on Climate Change, an organisation of healthcare professionals including the UK royal colleges. Resources include a guide to carbon literacy (that is, awareness of how everyday activities impact on greenhouse gas emissions).

The following resources relate to the wider picture of the climate and ecological emergency, including policy and evidence on the health impacts of climate change:

- Lancet Countdown includes annual reports and the EAT-Lancet diet report (a scientific review of what constitutes a healthy diet)
- NHS England guide to delivering a net zero NHS policy (there are different units in Scotland, Northern Ireland and Wales)
- the WHO's 1.5 Health Report, a health-related summary of the findings of the Intergovernmental Panel on Climate Change (IPCC).

Learning with other healthcare professionals

Multiprofessional and transdisciplinary working are essential for good population health. In primary care you could work with nurses, health visitors, social prescribers, pharmacists, social care and public health specialists, for example – all of whom are likely to be involved in education or public health programmes. Learning with voluntary or third-sector organisations, including those outside the health sector, may help you better understand the wider determinants of health.

Additionally, you may wish to speak to health professionals or patients who have trained in or used another health system, to understand the similarities and differences compared with your own. You could then consider how systems, processes or innovations from other health systems might be applied to improve your own practice.

Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- Health promotion, including in the workplace
- Screening programmes
- Environmental impact of prescribing

Simulated Consultation Assessment (SCA)

- A Bangladeshi man who is also overweight and smokes e-cigarettes attends for results of cardiovascular disease (CVD) assessment, which show impaired fasting glycaemia
- A woman in early pregnancy wants to discuss routine antenatal screening and monitoring care programme, stating that she wants minimal intervention
- A middle-aged man, who is in temporary accommodation in an inner-city area and not permanently registered with a practice, has chronic obstructive pulmonary disease (COPD) with frequent exacerbations

Workplace-based Assessment (WPBA)

- Log entry about the baby immunisation clinic
- Consultation Observation Tool (COT) on discussing the benefits and risks of having a prostate-specific antigen (PSA) test
- Case discussion on the health beliefs of a patient who is convinced he has cancer

The Life Stages Topic Guides

Children and young people

About this topic guide

This topic guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you understand important issues relating to the care of children and young people by illustrating the key learning points with a case scenario and questions. It also contains tips and advice for learning, assessment and continuing professional development (CPD), including guidance on the knowledge relevant to this area of general practice.

Each topic guide is intended to illustrate important aspects of everyday general practice, rather than provide a comprehensive overview of each clinical topic. It should therefore be considered in conjunction with other topic guides and educational resources.

The role of the GP in the care of children and young people

As a GP, your role is to:

- be the first point of contact for the unwell child
- be responsible for ensuring high-quality evidence-based care for children and young people with both acute and chronic conditions, and demonstrate appropriate competence in child safeguarding
- make every contact count, with opportunistic interventions during scheduled and unscheduled contacts in primary care
- play a key role in co-ordinating truly holistic care through multiprofessional conversations with services across health, social and educational sectors. This will have a crucial impact on the adult health and life chances of children and young people
- identify and support at-risk children, and adolescents who may fall through the gaps in services, particularly in the context of safeguarding and mental health
- identify vulnerable children when seeing adult patients who have experienced their own health and social problems, such as domestic violence or substance misuse
- support the transition to adulthood and the transfer from paediatric to adult services
- understand that social determinants of health are particularly important in vulnerable sectors of society, especially with rising incidences of child poverty and inequality, and engage in reducing inequality of access to services.

Emerging issues

- Mental health post pandemic
- Increased recognition of neurodivergence in children and young people

Knowledge and skills guide

For each problem or disease, consider the following areas within the general context of primary care:

- the natural history of the condition including whether acute or chronic
- the incidence and prevalence, including in different demographic groups
- typical and atypical presentations
- recognition of normal variations throughout life
- risk factors, including lifestyle, socio-economic and genetic factors
- diagnostic features and differential diagnosis
- recognition of 'alarm' or 'red flag' features
- appropriate and relevant investigations
- interpretation of test results
- management, including initial and continuing care, chronic disease monitoring and emergency care
- patient and carer information and education, including self-care
- prognosis.

The normal child

A very important element of child health in general practice is the recognition of the range of normality in physical, psychological, and behavioural development. These include:

- normal developmental milestones and assessment of development delay, including language, gross and fine motor skills and social development
- normal growth, including interpretation of growth charts
- normal maturation, including puberty
- normality in the neonatal period, including screening
- normality of physical development with normal variations (for example, orthopaedic variations such as genu valgus/varus and plagiocephaly)
- normal development of emotional and psychological maturity and normal variation in childhood behaviour
- awareness of norms and referral standards when undertaking newborn and infant physical examination (NIPE) programme examinations.

Symptoms and signs

A key feature of knowledge about child health is the interpretation of common symptoms and signs in different age ranges. For example, back pain or abdominal pain in childhood, adolescence and adulthood will most likely have different underlying causes and natural histories. This can have significant and potentially serious consequences if not fully recognised when considering differential diagnoses.

Attention should also be paid to specific paediatric themes, such as:

- behavioural problems
- developmental problems
- faltering growth
- features of the acutely unwell child, including fever, rashes, irritability, breathing and circulatory signs
- mental health problems, including bullying, stress, self-harm and suicidal thoughts
- adolescents and young people aged 10–25 years as a distinct group with respect to brain development, physiology and pharmacokinetics
- Adolescence as a developmental stage and its particular issues, in particular the importance of being opportunistic in assessing mental well-being and sexual health
- gender identity issues. Lesbian, gay, bisexual and transgender (LGBTQ+) patients face inequalities in their experience of NHS healthcare.

Common and important conditions

Many of the problems and diseases are classified by body system, reflecting the wide scope of general practice in the UK. There is inevitably overlap between system classifications and generic areas such as child health.

- Early and undifferentiated presentations, and recognition of a seriously ill child (and urgent intervention when appropriate)
- Acute paediatric emergencies (such as febrile convulsions, anaphylaxis, asthma, septicaemia, meningitis and surgical conditions)
- Urgent resuscitation in line with Resuscitation Council UK guidelines
- Appropriate acute and repeat prescribing and reviews
- Behavioural problems (such as enuresis, encopresis, food refusal or fussy eating and tantrums)
- Childhood infections, including exanthemata (such as mumps, measles, rubella, chickenpox, herpes simplex, parvovirus, Coxsackie, Kawasaki and other infections listed under dermatological disorders below)
- Childhood malignancies (such as leukaemias, lymphoma, brain tumours, retinoblastoma, neuroblastoma, nephroblastoma and sarcoma)
- Chromosomal disorders (for example, Down's syndrome, Fragile X, Klinefelter's syndrome, trisomy 18, Turner syndrome)

- Congenital abnormalities (such as congenital heart disease, hypothyroidism, musculoskeletal and neurological abnormalities and sensory impairment)
- Dermatological disorders in childhood (such as seborrheic dermatitis, atopic eczema, infections such as impetigo and fungal infections especially tinea capitis and kerions, alopecia areata, vitiligo and infantile haemangiomas)
- Diagnosis and management of diseases relating to children (for example, asthma, diabetes, epilepsy, respiratory infections such as pneumonia, bronchiolitis and croup)
- Disease prevention, wellbeing and safety, including in the following areas:
    - health benefits of breastfeeding, infant feeding, effective milk transfer, and breastfeeding substitute guidelines
    - healthy diet
    - social and emotional wellbeing
    - immunisation
    - smoking
    - avoiding the use of volatile substances and other drugs
    - minimising alcohol intake
- Faltering growth and underlying causes, including ineffective intake, for example due to lack of breast milk or inadequate nutrition, undiagnosed conditions (such as cystic fibrosis and coeliac disease), chronic infection, non-medical causes such as abuse or neglect
- Gastrointestinal (GI) conditions that present in childhood (for example, appendicitis, Meckel's diverticulum, intussusception, malabsorption such as coeliac disease, cows' milk protein allergy, cystic fibrosis, the risks and treatment of iron deficiency, and inflammatory bowel disease and other chronic malabsorption conditions that might be confused with other conditions such as eating disorders)
- Immunisation in children (routine primary schedule and other immunisations, contraindications to immunisation)
- Neurodivergence in children, including conditions that fall under the neurodivergence umbrella such as autistic spectrum disorder and related conditions, attention deficit hyperactivity disorder (ADHD), developmental language disorder, developmental co-ordination disorder (dyspraxia), specific learning difficulties (dyslexia, dyscalculia), tic disorders
- Intellectual disability and global developmental delay
- Behavioural and mental health problems such as depression, eating disorders, substance misuse and self-harm, risks and consequences of bullying, including cyberbullying and increasing impact of social media (see also the *Mental health* and *Smoking, alcohol and substance misuse* topic guides)
- Musculoskeletal problems relevant to children, for example, inflammatory arthritides (infective, autoimmune), osteochondritis, Osgood-Schlatter's, Perthes' disease, slipped epiphysis, injuries such as greenstick fractures, pulled elbow)
- Neonatal issues, including:
    - congenital abnormalities (listed above)
    - feeding problems (breastfeeding and bottle-feeding), gastro-oesophageal reflux, hypoglycaemia

    - jaundice (such as breastfeeding, haemolytic and haemorrhagic disease of the newborn, biliary atresia)
    - respiratory problems such as respiratory distress syndrome and sleep apnoea
    - skin conditions such as birthmarks, erythema neonatorum, miliaria and neonatal acne
    - complications of prematurity such as chronic lung disease and cerebral palsy
- Neurological problems relevant to children, including seizures (such as febrile convulsions, epilepsy), awareness of rare degenerative neurological diseases (for example, Rett syndrome, Batten disease)
- Sleep physiology and pathology of sleep disorders in infants and adolescents
- Obesity in childhood: long-term health effects and interventional strategies for weight reduction
- Poisoning: accidental ingestion, iatrogenic, overdose and deliberate self-harm, and deliberate harm by carers
- Refugees and asylum seekers or migrant populations and the additional health needs of their children
- Renal diseases relevant to children (including recurrent urinary tract infections, structural anomalies such as posterior urethral valves, renal pelvic dilatation, haemolytic uraemic syndrome, nephrotic syndrome and glomerulonephritis)
- Safeguarding children, such as:
    - recognition of non-accidental injury including physical, emotional and sexual abuse, including risk of female genital mutilation, and appropriate actions
    - maltreatment and neglect, parental problems including domestic violence and abuse, substance and alcohol misuse and mental health problems
    - recognising the significance if a child is not brought to an appointment and taking appropriate action
    - balancing children's rights and wishes with professional responsibility to keep children safe from harm
- Sex identity and intersex, appearance of genitals including fused labia, hypospadias, clitoral hypertrophy
- Gender dysphoria, providing appropriate medical and psychological support for the individuals and their families, and referral to appropriate services
- Teenage pregnancy, risks of sexually transmitted infections and child sexual exploitation
- Transitional issues from child to adolescent and from adolescent to adult. This applies to all children but especially those who are vulnerable
- Consent and competence in older children and adolescents
- Paediatric palliative patients: children and young people living with life-limiting and life-threatening conditions including at transition from paediatric to adult services

Examinations and procedures

- Age-appropriate clinical examination and normal variation in biometrics
- Perform accurate measurements such as peak flow
- Indication and administration of injections and immunisations

Investigations

The decision to undertake investigations in children can be complex. It needs to take account of the emotional and physical impact in the context of the probability and possibility of detecting significant underlying disease.

- Appropriate investigations for common diseases such as asthma or urinary tract infection need to be clearly understood
- Liaison with specialist colleagues when considering invasive or complex investigations and their correct interpretation
- Appropriate use of sedation and pain relief and managing anxiety of the child undergoing investigative procedures

Service issues

- Providing the best care for child health services requires collaboration between professionals. The traditional separation of primary and secondary care services needs to be replaced by multiprofessional working across well-defined clinical sectors, enabling care closer to home
- Respect for the sensitivities of young people regarding their health attitudes, behaviours and needs; impact of attitudes to treating children and young people equitably, with respect for their beliefs, preferences, dignity and rights; issues of confidentiality and consent and sharing information with other agencies
- Appropriate autonomy and involvement of children, carers and families in care planning and delivery; parental responsibility and who can make decisions for a child; confidentiality balanced with the parents' need for information and shared decision-making with you as their GP; awareness of the legal framework for consent in children and young people
- Prevalence and incidence of illness in the community and the specific circumstances of the patient and family; healthcare needs of the paediatric population of your community and the socio-economic and cultural features that might affect health
- Workload issues raised by paediatric problems (such as the demand for urgent appointments and the mechanisms for dealing with this)
- Organisation of care, including care pathways and local systems of care; child-focused clinical governance and risk management, such as safety of treatment and care, safeguarding, the use of evidence-based practice, clinical audit, effective prescribing and referrals

- Multi-agency working (working across professional and agency boundaries) and the principles of information sharing, including the role of the health visitor in child health surveillance
- Appropriate use of referrals; co-ordination of care with other primary care professionals, paediatricians and other appropriate specialists, leading to effective and appropriate care provision
- Taking an advocacy position for the child, young person or family when needed, balancing the child's rights and wishes with the professional responsibility to keep them safe from harm. This will include complex situations such as safeguarding issues and end-of-life care
- Information, advice and support to enable children, young people and families to manage minor illnesses themselves, using community pharmacists and triage services where appropriate and accessing appropriate services when necessary
- Legal and political context of child and adolescent care; delivering services for young people relating to access, communication, confidentiality and consent

Additional important content

- Childhood immunisation schedules. These should be kept under review as they can frequently change
- Communication skills specific to child and adolescent health and 'three-way consulting' (consulting with both parent and child); having to address parental and patient's ideas, concerns and expectations; recognition and assessment of behaviour as a form of communication; recognition of the importance of seeing adolescents alone; use of tools (such as HEADSSS) for structured psychological assessment in adolescents
- Prescribing and advising appropriately about the use of medicines in newborn babies, children and young people, being competent at calculating drug doses, understanding the risks and benefits of medicines in relation to children, and cultural differences in beliefs about illness and the use of medicines; best evidence in clinical management and prescribing of medicines for children, and licensing implications
- Pain management in children
- Comorbidities in the child, young person and family with additional vulnerability or special circumstances
- Access for young people to confidential contraceptive and sexual health advice services that are tailored to meet their needs

Case discussion

James Green, a 14-year-old boy, attends your morning surgery with his parents. On reviewing his record, you discover that he has been diagnosed recently with juvenile idiopathic arthritis (JIA) affecting both his knees and hips.

His parents are seeking further information from you regarding the condition, management and prognosis, as the shock of the diagnosis during their initial hospital

consultation meant that they could not take in much information at the time of diagnosis. James asks you if the illness will affect his ambition to become a professional footballer – before he became unwell, he had just been selected to play for the county junior team but is now struggling to walk because of his joint pain. His parents tell you they have stopped him from playing any sport, fearful he will damage his health.

Questions

These questions are provided to prompt you to consider the key points of the case. They can form the basis for a case-based discussion with your educational supervisor and will assist you in writing reflective entries in your ePortfolio. The questions are examples to trigger reflection and are not intended to be comprehensive.

Core capabilities	Questions
Fitness to practise This is about professionalism and the actions expected to protect people from harm. This includes the awareness of when an individual's performance, conduct or health, or that of others, might put patients, themselves or their colleagues at risk.	What are my own personal values and assumptions regarding this young person's diagnosis and how might these affect my judgements and behaviours?
An ethical approach This is about practising ethically with integrity and a respect for equality and diversity.	What happens if there is a conflict between the child's and parents' wishes? What are the ethical dilemmas?
Communicating and consulting This is about communication with patients, the use of recognised consultation techniques, establishing and maintaining patient partnerships, managing challenging consultations, third-party consulting, the use of interpreters and consulting modalities across the range of in-person and remote methods.	How might I adapt my consultation to take account of the differing needs of James and his parents? How confident am I in explaining prognosis? How do I explain it differently to adults compared with to a teenager? Which consultation models would help to improve my skills in managing this case?
Data gathering and interpretation This is about the gathering, interpretation and use of data for clinical judgement, including information gathered from the history, clinical records, examination and investigations.	How should I investigate early childhood arthropathy? Could there be a genetic element to this? What is the prevalence of early childhood arthropathy in primary care?

	Could I detect an arthropathy at an earlier stage? What do the terms 'sensitivity' and 'specificity' mean in the interpretation of laboratory investigation?
Clinical examination and procedural skills This is about clinical examination and procedural skills. By the end of training, the GP registrar must have demonstrated competence in general and systemic examinations of all the clinical curriculum areas, including the five mandatory examinations and a range of skills relevant to general practice.	What investigations, such as blood tests, would be appropriate to undertake in primary care? How do I assess functional impairment in this age group?
Decision-making and diagnosis This is about having a conscious, organised approach to making diagnosis and decisions that are tailored to the particular circumstances in which they are required.	How would I diagnose and manage JIA (perhaps bringing in the principle of recognising acutely ill children and rare diseases)? Should I advise James to stop playing football? Is there anyone I can speak to for more advice if I am uncertain?
Clinical management This is about the recognition and a generalist's management of patients' problems.	How confident am I to prescribe in this age group? How does JIA present? How do I manage these patients in the long-term? Do I need to consider any other comorbidities or health problems that may occur?
Medical complexity This is about aspects of care beyond the acute problem, including the management of comorbidity, uncertainty, risk and health promotion.	What are the risks of prescribing and monitoring disease-modifying drugs in primary care? How will care be coordinated with other professionals in the practice and in other services? Would any other interventions be helpful for James at this stage?
Team working This is about working effectively with others to ensure good patient care and includes sharing information with colleagues and using the skills of a multiprofessional team.	Which other members of the multidisciplinary team would I involve (such as school nurses, faith organisations, psychologists, family counsellors, occupational therapists and physiotherapists)?

	How can I work with my local paediatric services to manage a child with newly diagnosed JIA? How do we coordinate care and maintain shared responsibility rather than simply handing over care to the specialist team?
Performance, learning and teaching This is about maintaining the performance and effective CPD of oneself and others. The evidence for these activities should be shared in a timely manner within the portfolio.	What mechanisms exist in my practice to ensure that I am kept up to date with a diagnosis of JIA? Should I be doing more to promote an awareness of JIA in my clinical practice and how do I do this? How might resource constraints prevent me from providing the best quality care to patients with this diagnosis? What might be important to consider when thinking about managing long-term illness in a child?
Organisation, management and leadership This is about understanding how primary care is organised within the NHS, how teams are managed and the development of clinical leadership skills.	What mechanisms are in place in my practice to ensure that JIA patients and their relatives are reviewed on a regular basis? How might I use my leadership skills to act as an advocate for James?
Holistic practice, health promotion and safeguarding This is about the ability of the doctor to operate in physical, psychological, socio-economic and cultural dimensions. The doctor is able to take into account the patient's feelings and opinions. The doctor encourages health improvement, self-management, preventative medicine and shared care planning with patients and their carers. The doctor has the skills and knowledge to consider and take appropriate safeguarding actions.	How do I plan to follow up James and his family? How might I manage the psychological impact of his disease on James and his family? How can I manage issues around potential school absence? How do I manage the James' and his parents' ideas, concerns and expectations?
Community health and environmental sustainability This is about the management of the health and social care of the practice population and local community. It	Which voluntary sector and support organisations might be helpful to James and his family? What are the care services available in my area for children?

incorporates an understanding of the interconnectedness of health of populations and the planet.	What psychological support services are available locally to children and adolescents? Who can advise on benefits if one parent gives up working to become a carer?

How to learn this area of practice

Key knowledge areas in child health include child development (starting with normality), diagnosis of acute and serious illness, and prescribing for children. Be aware of your potential lack of knowledge around minor conditions commonly seen in the community, which you may not have previously encountered in hospital settings (good examples are molluscum contagiosum, ringworm and headlice). Many conditions may not require significant intervention and it is important to recognise normal childhood findings and know when to appropriately reassure parents.

Work-based learning

The focus of the clinics is around a sharing of ideas and learning in both directions. The GP registrar leads the consultation for some patients; in other consultations, the child health-related experience of the paediatric specialty registrar allows them to be the natural lead. This balance helps to foster a culture of peer learning.

Learning occurs on a number of different levels (such as clinical management of the condition, public health aspects, health promotion, case management and working with primary care nurses, for example).

In addition to gaining experience and building competence in consultation and clinical skills, these clinics gave GP registrars the opportunity to develop new insights and perspectives into the challenges and opportunities of seeing children and young people jointly within a primary care setting.

Learning together in paediatric services

Appropriate management of emergencies supported by focused learning allows acquisition of skills and some confidence in this area.

Community-based paediatric services offer a great opportunity to learn about a wide range of conditions, including the long-term needs of the child with complex problems, safeguarding, neurodisability and health promotion.

Learning with other healthcare professionals

Much of the care of children in the NHS is provided by nurses, health visitors, social workers, pharmacists, physiotherapists and many others. Learning arises directly from clinical contact with these professionals – such as with midwives delivering antenatal and postnatal care, health visitors visiting children at home or specialist nurses managing young patients with chronic diseases. Many hold skills that should at least be understood by the doctor and acquired in the context of multiprofessional learning.
The shared experience of training and learning encourages better communication and working relationships between the members of healthcare teams and will create better healthcare outcomes.

Structured learning

The RCGP and Royal College of Paediatrics and Child Health (RCPCH) provide a selection of courses across the UK in both child and adolescent health, including child health issues, child protection, immunisation and child development. This will stimulate reflection on real cases seen in your work and help you as a professional to develop the knowledge, skills and attitudes required for high-quality, collaborative care.

Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- Recognition of normality and disease at different ages in children and young adults
- Prescribing in children
- Contraindications for childhood immunisations

Simulated Consultation Assessment (SCA)

- A 15-year-old girl requests the contraceptive pill
- Phone call: a health visitor is concerned about the welfare of a baby in a vulnerable family. You are due to see the baby's mother later that day
- A mother expects her three-year-old son to be potty-trained and wants to discuss why he is not

Workplace-based Assessment (WPBA)

- Case-based Discussion (CbD) about a mother who is very emotional about her young son's diagnosis of a brain tumour when he is also in the room
- Log entry reflecting on a consultation with a teenager who appears unco-operative

- Log entry about attending and contributing to a case conference for child safeguarding
- Clinical examination and procedural skills (CEPS) demonstrating a competent six-week baby check

People with long-term conditions including cancer

About this topic guide

This topic guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you understand important issues relating to the care of people with long-term conditions (including cancer) by illustrating the key learning points with a case scenario and questions. It also contains tips and advice for learning, assessment and continuing professional development (CPD), including guidance on the knowledge relevant to this area of general practice.

Each topic guide is intended to illustrate important aspects of everyday general practice, rather than provide a comprehensive overview of each clinical topic. It should therefore be considered in conjunction with other topic guides and educational resources.

The role of the GP in caring for people with long-term conditions including cancer

As a GP your role is to:

- work with patients, their families and carers, and other healthcare professionals involved in their care, in a collaborative manner that supports patient activation; encourage individuals to develop the knowledge, skills and confidence to take an active role in their own self-management
- work collaboratively with people living with long-term health conditions to agree individualised goals, identify support needs, develop and implement plans, review their response over time and amend plans as required
- move away from a disease-based model of care towards a person-centred system that takes a biopsychosocial approach, considering each person's experience of living with their condition(s) and their individual context holistically
- involve the whole multidisciplinary team to facilitate holistic person-centred approaches to care
- proactively encourage lifestyle changes that will reduce the risk of other health problems in those who have already developed long-term conditions, cancer or multimorbidity.

Knowledge and skills guide

A long-term condition is defined here to mean any medical condition that cannot currently be cured but can be managed with the use of medication and/or other approaches and therapies.[27] This contrasts with acute conditions, which typically have a finite duration, for example an upper respiratory tract infection.

[27] NHS Data Dictionary, Long-term physical health condition.

In relation to the care of people with long-term conditions and those living with and beyond cancer, consider the following areas within the general context of primary care:

- the natural history of the condition(s), including whether acute or chronic
- the incidence and prevalence, including in different demographic groups
- typical and atypical presentations
- recognition of normal variations throughout life
- risk factors, including lifestyle, socio-economic factors and those from the family history
- diagnostic features and differential diagnosis
- decognition of 'alarm' or 'red flag' features
- appropriate and relevant investigations
- interpretation of test results
- management, including initial and continuing care, chronic disease monitoring and emergency care
- patient and carer information and education, including self-care
- prognosis.

For people with long-term health conditions, the interactions between and cumulative effects of multiple conditions, treatments and therapies must be considered, as well as the needs of the individual and their carers and relatives based on their circumstances. Through a holistic approach, the benefits and potential harms of investigation and treatment need to be discussed and decisions shared with patients. These interactions bring additional complexity to care, beyond the biomedical aspects of the specific health conditions.

Common and important conditions

Long-term conditions cover a wide range of health conditions, including but not limited to any condition or combinations of condition in the categories listed below:

- non-communicable diseases (such as osteoarthritis, cardiovascular disease)
- communicable diseases (such as human immunodeficiency virus (HIV) and acquired immunodeficiency syndrome (AIDS))
- certain mental health disorders (for example, schizophrenia, depression)
- sensory impairments (for example, blindness, permanent hearing loss).

Examples of common long-term physical health conditions include:

- certain cancers
- cardiovascular (such as hypertension, angina)
- dermatological (such as eczema, psoriasis)
- ear, nose and throat problems (such as Ménière's disease, sleep apnoea)
- endocrine (such as diabetes, hypothyroidism)
- gastroenterological (such as coeliac disease, irritable bowel syndrome)

- gynaecological (such as endometriosis, polycystic ovarian syndrome)
- haematological (such as pernicious anaemia, anaemia of chronic disease)
- neurological (such as dementia, epilepsy)
- ophthalmological (such as glaucoma, macular degeneration)
- renal (chronic kidney disease, polycystic kidney disease)
- respiratory (such as asthma, chronic obstructive pulmonary disease (COPD))
- rheumatological (such as fibromyalgia, rheumatoid arthritis)
- urological (benign prostatic hypertrophy, overactive bladder)
- other (such as post-Covid-19 syndrome, angioedema).

Consider the following areas in the context of long-term conditions and cancer:

Natural history of the condition(s)

- Different trajectories of illness commonly seen in long-term conditions and cancer: these take many forms, but common trajectory patterns include stepwise (for example vascular dementia), exacerbations (such as COPD), gradual decline (for example frailty) and relapse or recurrence (such as breast cancer)
- Conditions that may become chronic through treatment or through the natural process of the disease

Service issues

- Active identification, surveillance and follow-up and the use of information technology and processes to achieve this
- Continuity of care within organisations and teams and with individual healthcare professionals
- Whole-system approaches to care, including integrated care models with GPs working in multidisciplinary teams alongside secondary care, social care and others
- The role of multidisciplinary teams, taking a holistic approach and connecting people to services and community groups for practical and emotional support
- The important role of third-sector providers (such as voluntary organisations, community groups and social enterprises) that can tailor support for people with certain long-term conditions
- Identifying and supporting unpaid carers of people with long-term conditions

Multimorbidity

Multimorbidity refers to the presence of two or more long-term health conditions. This includes physical and mental health conditions, ongoing conditions (such as learning disability), symptom complexes (for example, frailty or chronic pain), sensory impairment (such as sight loss) and alcohol and substance misuse. In patients with multimorbidity, consider:

- opportunistic and proactive identification of polypharmacy and multimorbidity

- reducing the burden of multimorbidity, including associated investigations, appointments and treatment, on the quality of life of the patient and their carers and family
- the possibility of coexisting mental illness such as depression and anxiety
- the possibility of one or more long-term conditions disguising other conditions, such as cancer
- the patient's needs, preferences, priorities and goals, including the role of carers and family
- providing whole-person care, considering a patient's social, mental and physical wellbeing
- the benefits and risks of guidelines addressing single health conditions, hence the need for a whole-person-centred approach
- the benefits of an agreed personalised management plan to coordinate care.

Cancer

One in two people in the UK now develops cancer at some point in their lifetime, and GPs play a vital role in preventing, diagnosing and caring for people with cancer.

Prevention

Health Promotion and Lifestyle modification: 'Being a GP', 'Genomic Medicine', 'Population and Planetary Health', 'Smoking, Alcohol and Substance Misuse', 'Respiratory' and 'Ear, Nose and Throat, Speech and Hearing' (*smoking*), 'Endocrinology and Metabolic Problems' (*obesity*), Gastroenterology (*diet*), 'Dermatology' (*sun exposure*)

NHS Immunisation programmes: See 'Population and Planetary Health', 'Gynaecology and Breast' and 'Sexual Health' (*HPV vaccination*)

Case Studies- See 'Genomic Medicine' and 'Population and Planetary Health'

Screening

Health Promotion: 'Being a GP'

NHS Screening programmes: 'Population and Planetary Health'

Familial cancers and inherited cancer predisposition syndromes: 'Genomics'

Principles of screening and using patient decision aids: 'Evidence in practice, research, teaching and lifelong learning' and for specific screening tests, 'Gastroenterology' (*Colonoscopy/ FIT test*), 'Gynaecology and Breast' (*Cervical smear/ mammogram*), 'Renal and Urology' (*PSA*)

Diagnosis

Detecting specific cancers: 'Children and Young People' (*childhood malignancies, eg. leukaemia, lymphoma, retinoblastoma, neuroblastoma, nephroblastoma, sarcoma*), 'Ear, Nose and Throat, Speech and Hearing', 'Gastroenterology', 'Gynaecology and Breast', 'Haematology' (*including thrombocytosis as a marker for various cancers*), 'Gynaecology and Breast', 'Renal and Urology', 'Respiratory'

Improving early cancer diagnosis: 'Being a GP' (*red flags, safety netting to manage risk, physical examination and investigations*), 'Older Adults' (*non-specific symptoms and signs*), 'Mental Health' (*avoiding diagnostic overshadowing*), 'Neurodiversity, Neurodevelopmental and co-occurring conditions' and 'Intellectual Disability' (*communication*)

Role of genetics: 'Genomic Medicine' (*family history of cancer, assessing genetic risk, DNA technologies*)

Case Study- See 'Gynaecology and Breast'

Treatment and Management

Whole person care: 'Being a GP' (*shared decision making and co-ordination of care*), 'Children and Young People' (*appropriate autonomy and involvement of children, carers and families in care-planning and delivery*), "Neurodiversity, Neurodevelopmental and co-occurring conditions', 'Intellectual Disability' (*providing resources and facilities appropriate and tailored to needs*), 'Population and Planetary Health' (*requests for Interventions Not Normally Funded (INNF)*)

Care for people with specific cancers: 'Respiratory Health' (*lung cancer management in primary care*), 'Haematology' (*Improving outcomes in haematological malignancies*)

Managing treatment side-effects and complications: 'Allergy and Clinical Immunology' (*immune deficiencies from chemotherapy and biologics, complications of transplantation*), 'Cardiovascular Health' (*drug-induced heart disease (eg. secondary to chemo/ radiotherapy)*), 'Eyes and Vision' (*impact of sight loss on other aspects of care*), 'Haematology' (*chemotherapy side-effects including neutropenia*), 'Infectious diseases and Travel Health' (*infectious disease in the immune-compromised patient*), 'Respiratory Health' (*Immunosuppression affecting the respiratory system*), 'Gastroenterology' (*medication side-effects*), 'Neurology' (*emergencies such as spinal cord compression*)

Genetics and cancer: 'Genomic Medicine' (*follow-up for patients under surveillance, targeted treatment for certain conditions (eg. mastectomy for BRCA1/2 mutation carriers)*)

Case Studies- See 'Haematology' and 'Gynaecology and Breast'

Recovery/ Survivorship

Mental and physical health impacts of treatment and recognising recurrence:

'Ear, Nose and Throat, Speech and Hearing' (*Tracheotomy management in primary care*), 'Dermatology' (*psychological impact of cancer-related skin problems*), 'Gastroenterology' (*stoma management/ complications*), 'Gynaecology and Breast', 'Haematology', 'Respiratory Health' (*financial compensation for mesothelioma*), 'Mental Health' (*including diagnostic overshadowing*)

Returning to work and rehabilitation: 'Population and Planetary Health' (*includes role of third sector/ voluntary organisations*)

Case Studies- See 'Haematology' and 'Older Adults'

End-of-Life Care

General medical care of a terminally ill patient:

See 'People at the end-of-life' and 'Mental Health' (*eg. anxiety and depression, anticipatory grief and bereavement reactions, including support for relatives and carers*)

Co-ordinating care: See 'Being a GP' and 'Children and Young People'

Case Study- See 'People at the end-of-life'

Living with and beyond cancer

More patients are living with and beyond a cancer diagnosis ('cancer survivorship') and live with the long-term effects of cancer and its treatment. These effects are wide-ranging and include, but are not limited to:

- physical (such as long-term effects of surgery, chemotherapy, radiotherapy and hormone treatment)
- psychological (for example, adjustment, depression, anxiety, post-traumatic stress)
- financial (such as change or loss of job, costs of care, costs of unfunded treatments)
- social (for example, loss of role, educational impacts, breakdown of relationships).

Other important issues include:

- the recognition of signs and symptoms of recurrence and relapse
- continued health promotion relating to future health risks, including cancer (screening may be indicated, for instance in people with the BRCA gene mutation who could be at additional risk of developing other cancers).

Case discussion

Rose Bennett is 72 years old and has osteoarthritis, type 2 diabetes and asthma. She takes significant responsibility for caring for her grandson, who has behavioural difficulties. Her daughter supports her as much as possible.

Due to concern about Rose's breathing being 'a bit up and down', her daughter requests a GP appointment. When you contact Rose for a telephone triage call, she understands the importance of controlling her medical conditions but finds it hard to prioritise this when her daughter and grandson also need her support. You arrange to see her face to face to assess her breathing further. During the face-to-face consultation, you notice that her mood seems low, but you only have time to discuss this briefly, focusing mainly on her asthma management.

Six months later, Rose comes back to see you. You notice that she has frequently attended for emergency appointments and has missed her last two routine reviews because she had to look after her grandson. You speak with a colleague after your clinic for advice about how you could help her further and agree she would benefit from a holistic needs assessment.

You send a task to the reception team, asking them to contact Rose to arrange two appointments at times convenient to her, one with a practice healthcare assistant and a second, longer GP appointment. During the first appointment, the healthcare assistant collects relevant information and performs tests you have requested.

Rose attends the second GP appointment with her daughter. During this 30-minute appointment you facilitate the conversation to prioritise her goals for the next year. She admits that she has been feeling low for many months and that improving her mood would be her priority, to help her support her grandson and manage her other health problems better.

You explain that a local talking therapies service could provide her with support to manage her mood problems. She decides to self-refer to this. As her breathing is currently manageable, you agree to focus on her diabetes for the rest of the appointment.

By the end of the consultation, you have both agreed on a shared plan of care. You arrange a follow-up appointment to review Rose's response over time and amend the plan if necessary.

Questions

These questions are provided to prompt you to consider the key points of the case. They can form the basis for a case-based discussion with your educational supervisor and will assist you in writing reflective entries in your ePortfolio. The questions are examples to trigger reflection and are not intended to be comprehensive.

Core capabilities	Questions
Fitness to practise This is about professionalism and the actions expected to protect people from harm. This includes the awareness of when an individual's performance, conduct or health, or that of others, might put patients, themselves or their colleagues at risk.	How do I feel about sharing control with my patients? How will I manage my own emotions and involvement with the intensity and intimacy of long appointments? How would I deal with the frustration of patients who do not engage with their own goals and actions?
An ethical approach This is about practising ethically with integrity and a respect for equality and diversity.	How do I ascertain how much information Rose is happy for me to share with her daughter or with other agencies? How might the approach change if she suffered from dementia? How might individuals of different ages and cultures respond to this shared decision-making approach, which shifts the balance of power towards the patient?

Communicating and consulting This is about communication with patients, the use of recognised consultation techniques, establishing and maintaining patient partnerships, managing challenging consultations, third-party consulting, the use of interpreters and consulting modalities across the range of in-person and remote methods.	How can I encourage Rose to lead the conversation in defining her own goals and targets? How can I encourage self-management? What might be the impact of third parties on the consultation?
Data gathering and interpretation This is about the gathering, interpretation and use of data for clinical judgement, including information gathered from the history, clinical records, examination and investigations.	What information should be collected during the initial consultation with the healthcare assistant to support a holistic assessment of the patient's needs? How can I support the patient in interpreting information to best aid decision-making?
Clinical examination and procedural skills This is about clinical examination and procedural skills. By the end of training, the GP registrar must have demonstrated competence in general and systemic examinations of all the clinical curriculum areas, including the five mandatory examinations and a range of skills relevant to general practice.	How could I tailor a mental state examination to patients in different contexts? Can I explain how to check peak flow and interpret a peak flow diary?
Decision-making and diagnosis This is about having a conscious, organised approach to making diagnosis and decisions that are tailored to the particular circumstances in which they are required.	How can I support the patient's autonomy in decision-making? How can I ensure that Rose remains the priority when her daughter is also in the room?
Clinical management This is about the recognition and a generalist's management of patients' problems.	How do I balance the patient's wishes with what I perceive to be medical priorities in management?

Medical complexity This is about aspects of care beyond the acute problem, including the management of comorbidity, uncertainty, risk and health promotion.	How do I assist a patient in managing the psychological burden of chronic disease and cancer? How can I prioritise a holistic, whole-person-centred approach to support the patient?
Team working This is about working effectively with others to ensure good patient care and includes sharing information with colleagues and using the skills of a multiprofessional team.	How can I ensure collaboration between different agencies including health, social and the voluntary sector? How could I best involve other primary care professionals in a holistic needs assessment?
Performance, learning and teaching This is about maintaining the performance and effective CPD of oneself and others. The evidence for these activities should be shared in a timely manner within the portfolio.	What training will I and other professionals require to deliver patient-centred care? How can I improve my knowledge of local services to support patients and their families? How might I evaluate my current care for people with long-term conditions and audit the impact of a more structured and collaborative approach?
Organisation, management and leadership This is about understanding how primary care is organised within the NHS, how teams are managed and the development of clinical leadership skills.	How can I involve patients and carers in service redesign? What are the advantages and potential challenges of involving patients in the design of the process? How can I use my clinical leadership skills to bring about improved care for people with long-term conditions? How do I overcome the barriers to changing my practice's current approach?
Holistic practice, health promotion and safeguarding This is about the ability of the doctor to operate in physical, psychological, socio-economic and cultural dimensions. The doctor is able to take into account the patient's feelings and opinions. The doctor	How do I support the patient's family? What impact would the patient's social circumstances have on her health and wellbeing? When is it appropriate to involve a patient's relatives?

encourages health improvement, self-management, preventative medicine and shared care planning with patients and their carers. The doctor has the skills and knowledge to consider and take appropriate safeguarding actions.	How might I manage concerned relatives who take control of the conversation away from the patient?
Community health and environmental sustainability This is about the management of the health and social care of the practice population and local community. It incorporates an understanding of the interconnectedness of health of populations and the planet.	How can my team balance the requirement for availability of appointments with the need for longer appointments? How can I support the provision of community-based services to support healthy living? How do I balance the needs of patients with long-term conditions against the wider issue of limited NHS resources?

How to learn this area of practice

RCGP toolkits

The RCGP toolkits are regularly updated and are available on the RCGP website.

Personalised Care Institute

The Personalised Care Institute aims to equip health and care professionals with the knowledge, skills and confidence to help patients get involved in decisions about their care. It provides eLearning and resources on shared decision-making, supported self-management, social prescribing and personalised care.

Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- Cancer symptom management
- Recognition of alarm symptoms for cancer
- Management of chronic heart failure

Simulated Consultation Assessment (SCA)

- A man who had leukaemia as a child attends frequently for apparently minor conditions

- A woman with Ehlers-Danlos syndrome is struggling to manage her work as a primary school teacher

Workplace-based Assessment (WPBA)

- CbD (Case-based Discussion) with a woman who cares for her frail and elderly, blind father with dementia, who is also your patient. She is asking for your help as she can no longer cope with him
- Learning log on a man living in a nursing home who is treated with dialysis and wants to stop treatment
- Learning log on a young adult who has cerebral palsy and epilepsy

Older adults

About this topic guide

This topic guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you understand important issues relating to the care of older adults by illustrating the key learning points with a case scenario and questions. It also contains tips and advice for learning, assessment and continuing professional development (CPD), including guidance on the knowledge relevant to this area of general practice.

Each topic guide is intended to illustrate important aspects of everyday general practice, rather than provide a comprehensive overview of each clinical topic. It should therefore be considered in conjunction with other topic guides and educational resources.

The role of the GP in the care of older adults

As a GP, your role is to:

- diagnose, investigate and manage older adults, taking into account theories of ageing, differences in epidemiology and risk factors of disease in the older population and considering the physical, psychological and social changes that may occur with age
- communicate appropriately with patients, their families and carers, recognising potential challenges in communicating with older patients. When necessary, balance confidentiality with the need for information sharing and shared decision-making
- coordinate with other organisations and professionals (such as community nurses, social services, rehabilitation, care homes and the voluntary sector) while taking an advocacy position for the patient or family when needed, including for palliative and end-of-life care planning
- review medications and repeat prescriptions effectively, potentially working with pharmacists. Consider the factors associated with drug treatment in the older adult (such as changes to the physiology of absorption, metabolism and excretion of drugs and the hazards posed by polypharmacy, non-compliance and iatrogenic disease)
- offer advice and support patients, relatives and carers regarding prevention, monitoring and self-management. Ensure care is personalised and promotes patients' sense of identity, independence and personal dignity and that the patient is not discriminated against as a result of their age.

Emerging issues in the care of older adults

- Availability of resources in the community has a direct impact on the provision of preventative services, so when care is required, it might become urgent and unplanned.
- There are increasing numbers of older people who are carers[28] and this may impact on their own health and wellbeing.

Knowledge and skills guide

For each problem or disease, consider the following areas within the general context of primary care:

- the natural history of the condition, including whether acute or chronic
- the incidence and prevalence, including in different demographic groups
- typical and atypical presentations
- recognition of normal variations throughout life
- risk factors, including lifestyle, socio-economic and genetic factors
- diagnostic features and differential diagnosis
- recognition of 'alarm' or 'red flag' features
- appropriate and relevant investigations
- interpretation of test results
- management, including initial and continuing care, chronic disease monitoring and emergency care
- patient and carer information and education, including self-care
- prognosis.

Symptoms and signs

Consider the normal physical and psychological changes that can occur with age and relate them to the adaptations older adults make and to the breakdown of these adaptations (such as when hearing, vision or cognitive function continue to worsen).

Common and important conditions

- Cancer: recognise the common, early, 'red flag' symptoms and signs of malignancy, many of which may be non-specific if taken in isolation. Many cancers are more prevalent in the elderly population and may be insidious
- Cardiovascular: atrial fibrillation (AF), heart failure, hypertension, hypotension, ischaemic heart disease, risks for stroke and dementia
- Musculoskeletal: falls, fractures, gait disorders, osteoporosis, osteoarthritis
- Neurological: Parkinson's disease, stroke, confusion

[28] www.ageuk.org.uk and, for example, https://www.ageuk.org.uk/latest-press/archive/carers-over-85-more-than-double-in-a-decade/

- Psychiatric: anxiety and depression, delirium, dementia
- Renal: chronic kidney disease (CKD), dehydration
- Respiratory: chronic obstructive pulmonary disease (COPD), lung cancer
- Skin: ulcers, skin malignancies, benign lesions associated with ageing
- Urogenital: infections, incontinence, lower urinary tract symptoms (LUTS), benign prostatic hypertrophy

Examinations and procedures

- Consider any adjustments that may be needed to examine appropriately and the normal variation in biometrics
- Informed consent and assessment of capacity
- Accurate measurements, such as dementia screening, frailty risk scoring and assessing for arrhythmias
- Indication and administration of vaccinations (seasonal flu, pneumococcal, shingles, Covid).

Investigations

- Changes in the normal range of laboratory values that are found in older people
- Interpretation of electrocardiogram (ECG), such as diagnosing AF
- Blood pressure (for example, risk of hypertension, postural hypotension)

Service issues

- The care of older people may be a significant proportion of general practice workload
- Increasing use of tools on frailty to identify populations that need increased support and management
- Increasing use of community teams and services to support and treat patients at home and avoid admissions to hospital, including hospital services at home
- Inequalities in healthcare provision can be particularly significant in older people (for example, learning, physical disabilities, access to care)
- Access to social services, rehabilitation, nursing homes, residential homes and various statutory and voluntary organisations to support older people in the community (for example, podiatry, visual and hearing aids, immobility and walking aids, meals on wheels, home care services). Note that there may be preconceived ideas of what ‘support’ can mean and some people may not identify themselves as needing support
- Differences when working with care homes, including continuity, medicines management and the use of care home advocacy
- Advance care planning and advance directives, including ‘Do not attempt resuscitation’ (DNAR) forms. Patient-held records can support appropriate decision-making in the context of long-term condition management and end-of-life care

- Ensure the appropriate use of screening and case-finding programmes. Note the potential challenges, such as auditing the quality of care in varying forms of residential accommodation

Additional important content

- Comorbidity and physical factors – particularly diet, exercise, ambient temperature and sleep – disproportionately affect the health of older people and will influence the management of existing disease
- Legal and ethical issues may arise (such as confidentiality, the Mental Health Act, the Mental Capacity Act, power of attorney, court of protection applications, guardianship, living wills, death certification and cremation)
- Issues related to carers, in particular the positive and negative impact of being a carer on their own health
- Safeguarding issues, including neglect and abuse (emotional, mental and physical)
- The impact of the Covid pandemic on the ageing population, including prolonged social isolation, inactivity and deconditioning, delayed diagnosis and post-Covid health issues, particularly in those with comorbidities

Case discussion

Ashok Patel, an 80-year-old man, attends the surgery in winter after having been discharged from hospital following treatment of a femoral fracture. He has severe back pain and a raised prostate-specific antigen (PSA) level. He has vascular dementia and was being cared for at home by his wife although she is finding it hard to cope. They have family overseas but no local support network.

He has multiple other medical problems including type 2 diabetes and hypertension. His prostate cancer was thought to be in remission. They live in a two-storey property with an upstairs toilet; he is the registered owner of the house. He is now unable to climb the stairs.

Ashok's wife, another patient of yours, has a right cataract impairing her vision and has previously made some minor errors when administering his medications. She also has poor mobility and is due to have a left hip replacement for osteoarthritis. She has been receiving Carer's Allowance and wants to continue to care for her husband at home.

You make a home visit after Ashok's hospital discharge to find him unkempt and in soiled bedding in a cold house. There has been inadequate discharge planning and little assessment of his home situation to help him or his wife cope with his new immobility.

Questions

These questions are provided to prompt you to consider the key points of the case. They can form the basis for a case discussion with your educational supervisor and will assist

you in writing reflective entries in your ePortfolio. The questions are examples to trigger reflection and are not intended to be comprehensive.

Core capabilities	Questions
Fitness to practise This is about professionalism and the actions expected to protect people from harm. This includes the awareness of when an individual's performance, conduct or health, or that of others, might put patients, themselves or their colleagues at risk.	What are the personal challenges I face in my working life when caring for my older patients? How do my personal attitudes and biases towards older adults and to the processes of growing old, becoming frail and to dying affect my practice? How would I manage this complex scenario during the working day while also maintaining my performance elsewhere?
An ethical approach This is about practising ethically with integrity and a respect for equality and diversity.	How might I address concerns about the inadequate discharge planning? How can my patients retain autonomy in this situation? What is my role in safeguarding the needs of the man with dementia while also respecting his wife's wishes?
Communicating and consulting This is about communication with patients, the use of recognised consultation techniques, establishing and maintaining patient partnerships, managing challenging consultations, third-party consulting, the use of interpreters and consulting modalities across the range of in person and remote methods.	What problems might I face in communicating with this couple? In the scenario described, who is my patient? How might I respond to apparently dated social and health beliefs and cultural traditions?
Data gathering and interpretation This is about the gathering, interpretation and use of data for clinical judgement, including information gathered from the history, clinical records, examination and investigations.	Where can I access information on the management of vascular dementia? How do I balance the use of intensive or invasive tests and treatments and the use of limited healthcare resources in the care of older adults? What other information about the family would be useful?

Clinical examination and procedural skills This is about clinical examination and procedural skills. By the end of training, the GP registrar must have demonstrated competence in general and systemic examinations of all the clinical curriculum areas, including the five mandatory examinations and a range of skills relevant to general practice.	Can I perform an accurate assessment of cognitive function using formal tools?
Decision-making and diagnosis This is about having a conscious, organised approach to making diagnosis and decisions that are tailored to the particular circumstances in which they are required.	What are the most appropriate options for managing a situation where there is no clear clinical need for hospital admission? How much should Ashok's wife influence this? How could the consultation encourage a shared decision-making process?
Clinical management This is about the recognition and a generalist's management of patients' problems.	What are the immediate medical and social problems that I need to manage? What is the treatment of choice for Ashok's hypertension? How can I ensure my personal biases regarding the management of risk factors in older adults (such as the cardiovascular risk factors of smoking, obesity, exercise, alcohol, age and race) do not influence management decisions?
Medical complexity This is about aspects of care beyond the acute problem, including the management of comorbidity, uncertainty, risk and health promotion.	How might I describe the complexity of this episode of healthcare provision? How would I make a risk assessment of this couple's situation? What are the possible supportive organisations and potential referral routes in this case?
Team working This is about working effectively with others to ensure good patient care and includes sharing information with colleagues and using the skills of a multiprofessional team.	What arrangements would I make to improve continuity of care? If I was concerned there was a safeguarding issue in this case, how would I manage this? Who else might be able to help me?

	What processes are important for continuity of care in the out-of-hours setting?
Performance, learning and teaching This is about maintaining the performance and effective CPD of oneself and others. The evidence for these activities should be shared in a timely manner within the portfolio.	What do I know about residential and care homes in my practice area? What can be identified as areas of personal educational need? What areas could be explored further for potential improvement for colleagues managing similar cases?
Organisation, management and leadership This is about understanding how primary care is organised within the NHS, how teams are managed and the development of clinical leadership skills.	How can I retain patient confidentiality when recording information about this couple in the notes? What information would I normally expect to receive following a hospital admission? What can my practice do to improve the support for similar patients?
Holistic practice, health promotion and safeguarding This is about the ability of the doctor to operate in physical, psychological, socio-economic and cultural dimensions. The doctor is able to take into account the patient's feelings and opinions. The doctor encourages health improvement, self-management, preventative medicine and shared care planning with patients and their carers. The doctor has the skills and knowledge to consider and take appropriate safeguarding actions.	Considering Ashok's wife, what might be the consequences for her if her husband goes into a care home? What sort of discussion should I be having with this couple regarding long-term care and placement? How can I manage this couple's ideas, concerns and expectations? How might the practice team have anticipated the problems identified in this scenario? Which problems, if any, do I think might have been prevented? What other services may be available to carers in my practice?

Community health and environmental sustainability This is about the management of the health and social care of the practice population and local community. It incorporates an understanding of the interconnectedness of health of populations and the planet.	How common is this type of problem in my practice population? How would I try to find out? What voluntary support services are available to my patients? What support can be offered by the primary care team and/or hospital outreach services?

How to learn this area of practice

Work-based learning

In general practice you will have the opportunity to care for many older patients with physical and mental conditions who live at home or in a residential care home. As a GP registrar you should be encouraged to look after some of the practice's older patients throughout your placement. As you follow them along their journey you will gain a better understanding of their problems and of the social and medical care they receive. Case conferences and multiprofessional assessments of your older patients will give you a better understanding of disease processes and their functional consequences.

A placement in a care of the elderly medicine (geriatric) department offers you the opportunity to learn how to manage complex comorbidity, interact with interprofessional teams, experience inter-agency work and work closely with the voluntary sector. You may also encounter hospital services provided in the home environment. You should also take the chance to expand your knowledge and skills in end-of-life care and advance directives. Take the opportunity also to attend day hospital and clinics, as well as to accompany your consultant on any domiciliary visits.

Self-directed learning

Older patients often have many complex psychological, social and physical problems that provide rich subjects for tutorials and case-based learning.

Learning with other healthcare professionals

The discipline of care for older adults involves huge numbers of professionals, each with their particular areas of expertise. These include community nurses, physiotherapists, occupational therapists, speech therapists, opticians, audiologists, palliative care nurses, physicians and social workers, to name but a few. You should endeavour to spend some time with these colleagues to ensure you understand the breadth and frequency of input that can be provided to the older adult, the effectiveness of such input and the appropriateness of referral to these agencies. You should also take the opportunity to visit patients at their homes with other members of the primary healthcare team and to

accompany the occasional patient to hospital clinics to gain a better understanding of the ‘patient journey’.

Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- Diagnosis of frequent falls
- Tools for assessing cognitive impairment
- Differential diagnosis of immobility

Simulated Consultation Assessment (SCA)

- An older man requests more analgesia for advanced hip osteoarthritis. He has declined a hip replacement because he is the sole carer for his disabled wife
- A woman with heart failure is dyspnoeic but cannot cope with the incontinence when she takes her diuretic medication
- Phone call: an adult son is concerned that his elderly father is no longer coping safely with living alone

Workplace-based Assessment (WPBA)

- Log entry about attending a multidisciplinary team meeting planning the hospital discharge of an older woman with dementia
- Log entry about completing a care plan for a nursing home resident whose daughter has unrealistic expectations
- Data gathering in a consultation with a garrulous patient giving an inconsistent and vague history
- Mini mental state examination (MMSE)

People at the end of life

About this topic guide

This topic guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you understand important issues relating to end-of-life care by illustrating the key learning points with a case scenario and questions. It also contains tips and advice for learning, assessment and continuing professional development (CPD), including guidance on the knowledge relevant to this area of general practice.

Each topic guide is intended to illustrate important aspects of everyday general practice, rather than provide a comprehensive overview of each clinical topic. It should therefore be considered in conjunction with other topic guides and educational resources.

The role of the GP in end-of-life and palliative care

As a GP, your role is to:

- use systems to proactively identify, record and review patients, their family and carers
- holistically assess and support the needs of the patient, family and carers
- understand diversity of need across age, gender, diagnosis, disability, sexuality, culture and spirituality to enable personalised care
- identify reversible conditions or deterioration and proactively plan for anticipated changes in capacity
- recognise common themes and consideration required for sensitive communication
- manage the general medical care and support the needs of patients with advanced serious illness and end-of-life care
- understand the purpose and function of the multidisciplinary team (MDT) and work in partnership to optimise care
- meet the needs of people in the last days of life, to ensure the best care and death possible, guided by appropriate frameworks to support end-of-life care
- deliver care with compassion, so that the person can die with dignity and minimal distress
- establish continuity of care with regular reviews of the person's needs and wishes, and revise care and support plans accordingly
- understand your role in care after death, including death certification, liaising with the coroner and the medical examiner, and supporting normal and complex grief responses
- participate in reflective practice to learn from deaths and improve your practice.

Knowledge and skills guide

The General Medical Council (GMC) defines people as 'approaching the end of life' when they are likely to die within the next 12 months[29]. This includes: patients whose death is imminent (expected within a few hours or days); those with advanced, progressive, incurable conditions, general frailty and coexisting conditions; and life-threatening acute conditions or deterioration caused by sudden catastrophic events. Palliative care is a broader approach that improves the quality of life of patients and families facing the problems associated with life-limiting and life-threatening illness, which may be physical, psychological, cultural, social and spiritual.

For each problem or disease, consider the following areas within the general context of primary care:

- the natural history of the condition, including whether acute or chronic
- the incidence and prevalence, including in different demographic groups
- typical and atypical presentations
- recognition of normal variations throughout life
- risk factors, including lifestyle, socio-economic and genetic factors
- diagnostic features and differential diagnosis
- recognition of 'alarm' or 'red flag' features
- appropriate and appropriateness of investigations
- interpretation of test results
- management, including self-care, emergency and continuing care, chronic disease monitoring
- patient and carer information and education
- prognosis, and management of uncertainty
- benefits of non-health-based support for the patient, family and carers.

Symptoms and signs

- Pain, including the psychosocial-cultural and spiritual aspects
- Gastrointestinal symptoms (such as nausea and vomiting, ascites and hiccups)
- Cachexia, anorexia and fatigue
- Psychological symptoms (such as restlessness and terminal agitation)
- Neurological symptoms (for example, headaches, fits, limb weakness)
- Respiratory symptoms (such as breathlessness and excessive secretions)
- Skin symptoms (such as pruritis, lymphoedema and pressure sores)
- Signs and symptoms of dying may include an exacerbation of those listed above
- Psychological distress and anticipatory grief (patient and carer)
- Complex grief signs and symptoms

[29] https://www.gmc-uk.org/professional-standards/the-professional-standards/treatment-and-care-towards-the-end-of-life

Common and important conditions

- Recognition and management of the final stages of life (such as anticipatory prescribing)
- Emergencies in palliative care include:
    - haemorrhage
    - hypercalcaemia
    - superior vena cava obstruction
    - spinal cord compression
    - raised intracranial pressure
    - sepsis
    - pancytopenia
- Severe complications of treatment
- Venous thromboembolic events (such as pulmonary embolism or deep vein thrombosis)

Examinations and procedures

- Assessing and diagnosing the cause of symptoms through targeted examination
- Pain and symptom assessment, including knowledge of therapeutic procedures, for example nerve block, drainage of ascites or pleural effusion

Investigations

- Investigations may be aimed at the underlying condition itself or checking for reversible conditions when appropriate.
- The rationale for investigations should be carefully considered and agreed with patients and those important to them.

Service issues

- There is an increasing demand for specialist palliative care services, which are commonly supported by funding from charitable organisations
- Optimising links between health and care services with demedicalised support from voluntary sector and community development
- Inequities in access and provision of palliative care services, including 24/7 specialist palliative care support
- Patient preference for place of death may be their home, which may require significant support and planning
- The importance (and difficulty) of continuity of care, palliative care meetings and training within primary care teams for good service provision
- Achieving reliability of care and experience for all patients who have an expectable death

- Financial implications for patients and their carers including access to benefits (such as eligibility for Special Rules payments and completion of an SR1 form[30])
- Timely and accurate death verification and certification, and the appropriate involvement of statutory reporting bodies
- Approaches to supporting families and carers after bereavement need to take into account religious, spiritual and cultural beliefs and practices

Case discussion

Daya Singh is 82 years old and the head of a large Sikh family. He had a haemorrhagic stroke two months ago, which left him bed-bound with a reduced consciousness level and unable to communicate, although he can swallow soft food. He is cared for at home by his daughters and granddaughters.

Over the past week, his conscious level has declined, and he is choking on his foods. You suspect that he has had further cerebral bleeding. The family would like to continue to care for him at home, in line with their cultural practices and beliefs.

You make a referral to the district nursing team and contact the local palliative care team for advice regarding end-of-life care and psychological and spiritual support for the family. A week later, you are asked to make an urgent home visit. He is tachycardic and has coarse crepitations in his right lung. You make the decision to arrange admission to hospital to treat aspiration pneumonia with intravenous (IV) antibiotics and fluids.

On discharge, you note on the discharge summary that the IV fluids had been stopped after a best interest discussion. 'Do not attempt cardiopulmonary resuscitation' (DNACPR) discussions have taken place with his family; this was shared with the local ambulance service and the family took a copy of the DNACPR form home with them.

Daya is discussed at the practice palliative care meeting. The district nurses are concerned that he appears to be agitated and that his breathing has become noisy due to respiratory secretions, which his family are finding traumatic. They feel that the goals of care should focus on symptom management and comfort. He dies peacefully five days later.

You issue the death certificate the next day, which helps the family to arrange his cremation in line with their spiritual beliefs.

Source: This is a modified version of the GMC end-of-life care illustrative case[31].

[30] https://www.gov.uk/government/publications/dwp-factual-medical-reports-guidance-for-healthcare-professionals/e5b3b502-9067-4b20-93c0-1006d9cb0edb
[31] https://www.gmc-uk.org/professional-standards/the-professional-standards/treatment-and-care-towards-the-end-of-life

Questions

These questions are provided to prompt you to consider the key points of the case. They can form the basis for a case-based discussion with your educational supervisor and will assist you in writing reflective entries in your ePortfolio. The questions are examples to trigger reflection and are not intended to be comprehensive.

Core capabilities	Questions
Fitness to practise This is about professionalism and the actions expected to protect people from harm. This includes the awareness of when an individual's performance, conduct or health, or that of others, might put patients, themselves or their colleagues at risk.	What are my personal feelings about advance care planning and adhering to my patient's requests? How do we respect other people's views and shared decision-making? How do we make time for sensitive and difficult conversations in a busy GP working day?
An ethical approach This is about practising ethically with integrity and a respect for equality and diversity.	What is the GMC's advice on end-of-life care? What are the ethical principles relevant to care planning and end-of-life care? Are there cultural beliefs that need exploring? When would I need to consider the Mental Capacity Act?
Communicating and consulting This is about communication with patients, the use of recognised consultation techniques, establishing and maintaining patient partnerships, managing challenging consultations, third-party consulting, the use of interpreters and consulting modalities across the range of in-person and remote methods.	How would I explain disease progression, variation and uncertainty around death and dying in this case? How could I start a discussion about end-of-life care planning? How would I handle issues such as distress or different opinions between family members?
Data gathering and interpretation This is about the gathering, interpretation and use of data for clinical judgement, including information gathered from the history, clinical records, examination and investigations.	What are the challenges in identification of reversible causes of deterioration and whether investigation and/or hospital admission is necessary and appropriate? Am I aware of important psychosocial factors, including the patient's occupation?

Clinical examination and procedural skills This is about clinical examination and procedural skills. By the end of training, the GP registrar must have demonstrated competence in general and systemic examinations of all the clinical curriculum areas, including the five mandatory examinations and a range of skills relevant to general practice.	What symptoms might be problematic towards the end of life? What other potential palliative care emergencies might arise in this situation and how would I manage them? What are the indications for a syringe driver?
Decision-making and diagnosis This is about having a conscious, organised approach to making diagnosis and decisions that are tailored to the particular circumstances in which they are required.	Which specific problem-solving elements are demonstrated in the case study? How can the MDT support decision-making, information sharing, peer support and education?
Medical complexity This is about aspects of care beyond the acute problem, including the management of comorbidity, uncertainty, risk and health promotion.	How do I involve patients in assessing risks and benefits when deciding on care at home for patients with complex clinical needs? Do the family have the necessary information, knowledge and skills to support care? Can the family recognise distress and/or pain and are they aware how they can help, including giving medication that will help?
Team working This is about working effectively with others to ensure good patient care and includes sharing information with colleagues and using the skills of a multiprofessional team.	As the patient's GP, where in this case study am I demonstrating my ability to function as both leader and member of end-of-life teams? Who should the other members of this team be? How will I communicate with out-of-hours providers, district nurses and the wider practice team?
Performance, learning and teaching This is about maintaining the performance and effective CPD of oneself and others. The evidence for these activities should be shared in a timely manner within the portfolio.	What educational resources, especially locally, can I access for palliative and end-of-life care? What is the evidence base for end-of-life care and what are the difficulties associated with research in this area?

Organisation, management and leadership This is about understanding how primary care is organised within the NHS, how teams are managed and the development of clinical leadership skills.	What is the importance of documenting key decisions about preferences, ceilings of care and DNACPR? What are the out-of-hours care arrangements? How can this help be accessed quickly if necessary? Am I familiar with the legal and statutory reporting obligations on death and cremation certificates, and the criteria for referral to the coroner? How can I reflect on and learn from deaths? How can I be involved with shared learning across sectors? How do I achieve reliability of processes to enable high-quality and safe care for all patients affected by end-of-life care?
Holistic practice, health promotion and safeguarding This is about the ability of the doctor to operate in physical, psychological, socio-economic and cultural dimensions. The doctor is able to take into account the patient's feelings and opinions. The doctor encourages health improvement, self-management, preventative medicine and shared care planning with patients and their carers. The doctor has the skills and knowledge to consider and take appropriate safeguarding actions.	How could I support the grieving process with Daya's family? On what occasions in this case study have the spiritual and cultural needs of my patient and his carers been identified and attended to?
Community health and environmental sustainability This is about the management of the health and social care of the practice population and local community. It incorporates an understanding of the interconnectedness of health of populations and the planet.	What social benefits and services might be available to my patient and his carers? What support has the patient and his main carer got available to them in a crisis – from health and care services and also within their supportive community networks?

How to learn this area of practice

Work-based learning

Learning about palliative and end-of-life care occurs most effectively when you are actively involved in caring for a patient in the last year(s) of life, including when they are dying. This can be in the patient's own home, or in a hospital, hospice or nursing home. You will find yourself surrounded by many health and care professionals from whom you will learn how to become better at this very difficult but rewarding aspect of being a GP. It is worth noting the role that every member of the MDT plays, and what is important to the patient and their family. It is also important to note how the patient and main carer(s) gain and build support from networks with their community.

Try, if possible, to follow a patient at the end of life and build a case study with suitably anonymised clinical detail, accompanied by your reflections. Working alongside your GP trainer can help in the day-to-day debriefing and managing your own beliefs and emotions. When death happens, ask if you and your trainer can visit the family and discuss their opinions of the care they received. Listen, reflect and share with your colleagues. Training practices usually have regular palliative care meetings where there is opportunity to discuss and learn from deaths with MDT members.

It is interesting to reflect on your observations and experiences of palliative and end-of-life care in hospital and the community, and how these may differ. Consider visiting a hospice if you do not have a clinical placement there, as this will provide another insight. You may witness varying attitudes to death, including team members who see dying as a failure of their care and ability to cure, and others who view it more openly as a part of life.

Self-directed learning

There are many structured learning events, especially in local hospices and courses run by the major charities. There is a growing body of eLearning to help consolidate and build on knowledge gained in the workplace. You can find an eLearning module(s) relevant to this topic guide at elearning for healthcare. For GP registrars, your specialty training programme should offer case-based discussions where end-of-life care can be shared.

Deaths in our own life can affect the way in which we manage the deaths of others. Consider your own feelings, emotions and beliefs about death and dying. Be open about this with your supervisors. It is possible to read about experiences of other people to help widen your own understanding of how different people can respond to death and dying, helping you to also appreciate variation across age, gender, diagnosis, disability, sexuality, culture and spirituality to enable individualised care.

Consider people's supportive networks that are available to help increase their resilience and wellbeing while they are not in direct contact with health and care professionals. Furthermore, be cognisant of your own wellbeing. Dealing with distress and dying can be very rewarding but also emotionally draining. Explore options in how you debrief, destress and handle professional grief to help support your own resilience. This can be particularly important if you are dealing with illness, loss or grief in your own life, so get to know your own 'warning signs'. Talk about coping strategies with your trainer and peer groups.

There are valuable resources in the arts, including fiction and non-fiction books, theatre and films, which provide ways of considering the human experience and can be used in groups to supplement case-based discussions.

Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- Management of end-of-life symptoms such as pain, breathlessness, nausea and vomiting
- End-of-life planning such as advanced care
- Death administration

Simulated Consultation Assessment (SCA)

- A man with metastatic bowel cancer wants to discuss his ongoing care
- Phone call: a district nurse requests medication to control nausea in a dying patient
- A Muslim woman seeks reassurance that her husband's end-of-life care and funeral arrangements will comply with his religious traditions, which she describes when asked

Workplace-based Assessment (WPBA)

- Log entry reflecting on organising home oxygen for a patient with end-stage chronic obstructive pulmonary disease (COPD)
- Consultation Observation Tool (COT) of a discussion with a patient about DNACPR
- Log entry about chairing the practice palliative care meeting, contemporaneously updating the patient record and ensuring communication with the wider MDT, including out-of-hours providers

The Clinical Topic Guides

Allergy and clinical immunology

About this topic guide

This topic guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you understand important issues relating to allergy and immunology by illustrating the key learning points with a case scenario and questions. It also contains tips and advice for learning, assessment and continuing professional development (CPD), including guidance on the knowledge relevant to this area of general practice.

Each topic guide is intended to illustrate important aspects of everyday general practice, rather than provide a comprehensive overview of each clinical topic. It should therefore be considered in conjunction with other topic guides and educational resources.

The role of the GP in the care of people with allergic disorders

- The UK has one of the highest prevalence of asthma, rhinitis and eczema. Allergy-related conditions may present in a significant number of consultations. The GP has the lead role in identifying underlying allergic symptoms that can be difficult to distinguish from the range of normality or other illnesses.
- Anaphylaxis is a life-threatening emergency that can present in primary care. GPs have a role in not only managing emergencies, but supervising the ongoing management of risk factors and prescribing.
- Allergy is a multisystem disease where relationship-based care and continuity of care are important.
- GPs need to understand how to take an allergy-focused clinical history and understand the differentiation of different types by appropriate testing and referral. This includes recognising and recording food and drug sensitivities.

Emerging issues in allergy care

- Despite the increasing prevalence of allergic and immune disorders, there is limited access to expertise and resources. This requires community-based services to take a wider role and develop integrated multidisciplinary pathways
- Allergies are the commonest chronic disorders in childhood and the prevalence has increased dramatically in the last 25 years
- Climate change and environmental factors are increasingly recognised as determinants for the allergen landscape and the impact on allergic disease
- Interaction of Covid-19 and allergy on respiratory function

- Personalised care in allergy management plans is being developed in association with the patient and other specialties such as paediatrics. Awareness is increasing in schools, which may request plans for students
- Advances in food allergy testing
- The role of immunotherapy for chronic allergic disorders

Knowledge and skills guide

For each problem or disease, consider the following areas within the general context of primary care:

- the natural history of the condition, including whether acute or chronic
- the incidence and prevalence, including in different demographic groups
- typical and atypical presentations
- recognition of normal variations throughout life
- risk factors, including lifestyle, socio-economic and cultural factors
- diagnostic features and differential diagnosis
- recognition of 'alarm' or 'red flag' features
- appropriate and relevant investigations
- interpretation of test results
- management, including initial and continuing care, chronic disease monitoring and emergency care
- patient and carer information and education, including self-care
- prognosis.

Symptoms and signs

- Anaphylaxis
- Angioedema
- Atopy – asthma, eczema and hay fever
- Drug reactions
- Gastrointestinal (GI) symptoms
- Urticaria and rashes

Common and important conditions

- Anaphylaxis, including doses of adrenaline and resuscitation
- Autoimmune conditions in primary care
- Drug allergies and their mechanisms
- Food allergies, including milk allergy (types such as IgE-mediated and non-IgE-mediated, presentation, primary care management and referral)
- Occupational allergies such as latex allergy and contact allergies such as hair dye, metals and plants
- Pollen food syndrome
- Types of allergic reaction: immediate, delayed, possible mechanisms

- Venom allergy: referral and emergency management; the role of immunotherapy

Examinations and procedures

- Administration of adrenaline
- Effective administration of topical nasal steroids and inhaler devices

Investigations

- Allergy: skin patch and prick testing, specific IgE testing (blood and skin prick), exclusion and reintroduction in suspected non-IgE disease

Service issues

- The impact of variability in local service provision for allergic disorders
- Extended hub and spoke models such as allergy and clinical immunology networks involving specialist nurses, health visitors and dietitians in integrated referral pathways
- Digital health and decision support software to enable remote consultation and more accurate diagnosis and management
- Patient safety measures, including appropriate prescribing (for example, systems to document allergies in the patient record, MedicAlert bracelet)

The role of the GP in the care of people with immune disorders

- Increasing numbers of people with secondary immune deficiencies from chemotherapy and use of biologics may present to their GP.
- GPs deliver preventative public health strategies through routine immunisation and should expand provision of vaccination as new disease patterns emerge.

Emerging issues in immune disorders

- Immune manipulation is increasingly being used in a range of therapies (such as monoclonal antibodies)
- Risk management in a pandemic, such as allergies to vaccinations (Covid-19)

Common and important conditions

- Immune deficiency states (inherited, primary and acquired such as human immunodeficiency virus (HIV), chemotherapy) as applicable to primary care, particularly the different requirements for antibiotics
- Immunisation:
    - antibody test results used in guiding management of specific situations such as chickenpox in pregnancy, rubella immunisation, hepatitis B and C

    - routine and catch-up primary childhood immunisation schedules, contraindications and adverse reactions
    - Covid-19 vaccinations and understanding indications, regulations and up-to-date guidance on risk and benefits
    - for occupational medicine such as healthcare workers and hepatitis B
    - vaccine hesitancy and its wider implications
- Needlestick injuries and risk of hepatitis B and C, HIV
- Skin manifestations of immune disease such as Kaposi's sarcoma
- Transplantation medicine as applicable to primary care, particularly in management of organ transplants
- Indications and complications of transplantation such as immunosuppression and immunosuppressant drugs

Symptoms and signs

- Recurrent infections – use of risk assessment checklists to assess susceptibility

Investigations

- Immune disorders: immunoglobulin levels and complement

Case discussion

Leo Mead, a 15-year-old boy, presents with a history of redness and soreness around his mouth and vomiting after eating a peanut. His mother tells you he had 'lactose intolerance' in childhood but has grown out of it. He is previously well and is unsure whether he has any other history of specific reactions.

He is known to be atopic with chronic eczema, which he is embarrassed about and is stopping him from swimming. His hay fever is usually sufficiently controlled with occasional antihistamines, but he is getting worsening asthma in the hay fever season and during exercise. His mother wonders whether you could refer him to a clinic for 'allergy testing'.

How would you respond?

Questions

These questions are provided to prompt you to consider the key points of the case. They can form the basis for a case-based discussion with your educational supervisor and will assist you in writing reflective entries in your ePortfolio. The questions are examples to trigger reflection and are not intended to be comprehensive.

Core capabilities	Questions
Fitness to practise This is about professionalism and the actions expected to protect people from harm. This includes the awareness of when an individual's performance, conduct or health, or that of others, might put patients, themselves or their colleagues at risk.	What are the personal challenges I face in caring for patients with a history of allergy? How do my personal beliefs about the impact of allergies on wellbeing influence the care that I provide? Do I listen without preconceived ideas to patients' thoughts on allergies or intolerance even if unlikely to have any medical basis?
An ethical approach This is about practising ethically with integrity and a respect for equality and diversity.	What are my attitudes towards people with allergies? If the patient had been three years old, or 30 years old, instead of 15, might that have changed my management? Do I empower patients to self-manage and to have confidence in accessing information on their condition and using treatments appropriately?
Communicating and consulting This is about communication with patients, the use of recognised consultation techniques, establishing and maintaining patient partnerships, managing challenging consultations, third-party consulting, the use of interpreters and consulting modalities across the range of in-person and remote methods.	How do I ensure that I accurately assess the needs and health beliefs of a 15-year-old boy in the presence of his mother? How do I respond to the inherent uncertainties in diagnosis and management? How do I seek to understand how the patient and family might feel about the risk of further events, the medications required and the fear of death from anaphylaxis?

Data gathering and interpretation This is about the gathering, interpretation and use of data for clinical judgement, including information gathered from the history, clinical records, examination and investigations.	What other questions should I ask to help me with my diagnosis? Do I know how to take an allergy history and understand the important key points to enable me to adequately assess risk and document symptoms in a way that accurately describes allergy? What investigations, if any, could I do in primary care? What is 'allergy testing'? How can it be performed? Do I understand different indications for skin prick testing, blood tests or patch tests?
Clinical examination and procedural skills This is about clinical examination and procedural skills. By the end of training, the GP registrar must have demonstrated competence in general and systemic examinations of all the clinical curriculum areas, including the five mandatory examinations and a range of skills relevant to general practice.	How would I clinically assess and manage a patient presenting with acute angioedema?
Decision-making and diagnosis This is about having a conscious, organised approach to making diagnosis and decisions that are tailored to the particular circumstances in which they are required.	How do I explore other factors that might influence Leo and his mother's health beliefs about his management? How can I incorporate shared decision-making in my management? What options are available to me if I am unsure what to do?

Clinical management This is about the recognition and a generalist's management of patients' problems.	What management options might be considered? Do I know the right dose of adrenaline for the patient's age and can I discuss types of device, needle length etc.? How do I assess the need for or urgency of referral? How can I empower patients and their carers to recognise symptoms of anaphylaxis if unintended allergen exposure occurs, and train them to use adrenaline devices if needed? How do I provide the patient and family with information on next steps in the management process and also with emergency management plans they can share with his school or college, for example?
Medical complexity This is about aspects of care beyond the acute problem, including the management of comorbidity, uncertainty, risk and health promotion.	In what ways might I know or find out whether a patient has an allergy (such as asking in consultation, noting MedicAlert bracelet)? How far am I aware of the nature of multisystemic allergy, including rhinitis and its associations with asthma, and food allergy with GI, respiratory and skin symptoms?
Team working This is about working effectively with others to ensure good patient care and includes sharing information with colleagues and using the skills of a multiprofessional team.	Am I aware of the boundaries of primary care and the role of specialist services? What do I know about allergy services in my area? To whom would I make a referral? How can I coordinate ongoing care with the specialist multidisciplinary teams? What are the best ways of communicating with regionalised teams such as allergy services?
Performance, learning and teaching This is about maintaining the performance and effective CPD of oneself and others. The evidence for these activities should be shared in a timely manner within the portfolio.	What do I know about the evidence-based management of allergy and do I understand and implement key national guidelines? What are my personal educational needs that this scenario identifies and how will I address them? Who might be able to help me?

	In what ways can I assess and improve the care of patients with allergy through quality improvement or audit?
Organisation, management and leadership This is about understanding how primary care is organised within the NHS, how teams are managed and the development of clinical leadership skills.	What systems does my practice have in place for recording patient allergies? What shared care arrangements would I expect to be in place for patients with severe allergies? What further support does the practice need to provide?
Holistic practice, health promotion and safeguarding This is about the ability of the doctor to operate in physical, psychological, socio-economic and cultural dimensions. The doctor is able to take into account the patient's feelings and opinions. The doctor encourages health improvement, self-management, preventative medicine and shared care planning with patients and their carers. The doctor has the skills and knowledge to consider and take appropriate safeguarding actions.	How do I assess the psychological and social impact of diagnosis on quality of life (QOL), including school or nursery settings, social occasions, travel and fear of reactions? How do I balance health anxiety with actual health risk? What other aspects of health promotion need to be addressed?
Community health and environmental sustainability This is about the management of the health and social care of the practice population and local community. It incorporates an understanding of the interconnectedness of health of populations and the planet.	How common are clinically significant allergies in my practice population? What are the cultural differences in my patient population and how does this impact on management of allergy? What support can be identified in my locality? What voluntary organisation might be able to offer support and resources?

How to learn this area of practice

Work-based learning

General practice is a good place for you to learn how to manage immune and allergic disorders because of the wealth of clinical material. Patients will present with various symptoms at varying stages in the natural history of their illness. Discussion with a

trainer will aid GP registrars in developing strategies to help in problem-solving. Supervised practice will also give GP registrars confidence.

In particular, the GP registrar should be able to gain experience in the management of immune and allergic disorders as they present in the community (incidental, acute and chronic), including life-threatening emergencies. Primary care is also the best place to learn about holistic long-term disease management (for example, immunosuppressed patients, atopy, food allergies, occupational allergies).

The acute setting is the place for you to learn about the immediate management of life-threatening presentations. You will also learn about the interpretation of clinical findings and the use of appropriate specialist investigations such as serology and allergy testing. Outpatient or clinic settings are ideal places for seeing concentrated groups of patients with immune problems.

GP specialty training programmes should offer you the opportunity to attend these clinics when working in other hospital posts and during your general practice-based placements.

Self-directed learning

There is a growing body of eLearning to help you consolidate and build on the knowledge you have gained in the workplace. You can find an eLearning module(s) relevant to this topic guide at elearning for healthcare.

Learning with other healthcare professionals

Chronic disease management in primary care is a multidisciplinary activity. As a GP registrar it is important for you to gain an understanding of the diagnosis, management and follow-up of patients with immune and allergic disorders, even when the clinical lead is taken by secondary care or a community clinical nurse specialist. It is also important to understand the role of specialist allergy services and when it is appropriate to access their expertise.

Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- Management of urticaria
- Recognition of common food allergies in children and adults
- Interpretation of antibody results

Simulated Consultation Assessment (SCA)

- A young woman is concerned that her lifestyle may have put her at risk of HIV and requests testing
- A parent requests allergy testing for their child with eczema
- A woman who works as a beautician has suspected contact dermatitis from cosmetic products

Workplace-based Assessment (WPBA)

- Consultation Observation Tool (COT) about having to explain anti-D immunoglobin immunisation to a pregnant patient who has not understood the hospital specialist's explanation
- Audit of the practice data on the appropriateness of prescribing adrenaline devices for patients at risk of anaphylaxis
- Reflective learning log entry about safety advice for a parent of a child with severe peanut allergy
- Clinical examination and procedural skills (CEPS) for administration of seasonal flu immunisation

Cardiovascular health

About this topic guide

This topic guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you understand important issues relating to cardiovascular health by illustrating the key learning points with a case scenario and questions. It also contains tips and advice for learning, assessment and continuing professional development (CPD), including guidance on the knowledge relevant to this area of general practice.

Each topic guide is intended to illustrate important aspects of everyday general practice, rather than provide a comprehensive overview of each clinical topic. It should therefore be considered in conjunction with other topic guides and educational resources.

The role of the GP in cardiovascular health

As a GP, your role is to:

- manage the risk factors for cardiovascular disease as an essential part of health promotion activity in primary care. You should be able to describe the key research findings that influence management of cardiovascular risk and disease. A large part of our work in primary care involves working with patients to engage them in making healthy lifestyle choices and limiting unhealthy behaviours
- communicate the risk of cardiovascular disease clearly and effectively in an unbiased manner, and use disease registers and data-recording templates effectively for opportunistic and planned monitoring
- manage cardiovascular emergencies in primary care
- accurately diagnose and manage symptoms that may be caused by cardiovascular conditions
- be aware of the impact that cardiovascular disease may have on disability and fitness to work, as well as the legal obligations relating to driving. You should also be able to recognise the cultural significance attached to heart disease
- be aware of the potential psychological and social impact of cardiovascular conditions
- advise on cardiovascular screening, such as the UK-wide abdominal aortic aneurysm (AAA) screening programme[32]

Knowledge and skills guide

For each problem or disease, consider the following areas within the general context of primary care:

[32] https://www.gov.uk/health-and-social-care/population-screening-programmes-abdominal-aortic-aneurysm

- the natural history of the condition, including whether acute or chronic
- the incidence and prevalence, including in different demographic groups
- typical and atypical presentations
- recognition of normal variations throughout life
- risk factors, including lifestyle, socio-economic and genetic factors
- diagnostic features and differential diagnosis
- recognition of 'alarm' or 'red flag' features
- appropriate and relevant investigations
- interpretation of test results
- management, including initial and continuing care, chronic disease monitoring and emergency care
- patient and carer information and education, including self-care
- prognosis.

Symptoms and signs

- Cardiac murmurs
- Chest pain (including factors suggestive of cardiac origin)
- Circulatory symptoms of ischaemia, thrombosis, chronic arterial and venous insufficiency
- Dyspnoea
- Oedema
- Palpitations and arrhythmias
- Syncope, dizziness, and collapse, including non-cardiovascular causes
- Symptoms and signs of stroke or transient ischaemic attack (TIA)

Common and important conditions

- Acute cardiovascular problems including cardiac arrest, acute coronary syndrome (ACS), acute myocardial infarct, acute left ventricular failure, dissecting aneurysms, malignant hypertension and life-threatening arrhythmias, cardiogenic shock, acute ischaemia of limbs and bowel, TIA and stroke
- Arrhythmias including conduction defects such as atrial fibrillation (AF) and flutter, heart block, supraventricular tachycardia, ventricular rhythm abnormalities
- Cardiovascular conditions for which anticoagulation may be relevant, such as AF, myocardial ischaemia, peripheral vascular disease, and TIA or stroke (including heparin, thrombolysis indications, oral anticoagulation)
- Cardiomyopathies: primary and acquired, including dilated and hypertrophic obstructive
- Cerebral disease for which cardiovascular risk factors are important, for example, stroke, vascular dementia
- Circulation disorders, including:
    - arterial problems such as peripheral vascular disease, vasculitis, aneurysms (cerebral, aortic and peripheral), arterial ulcers
    - venous problems such as venous thromboembolism, pulmonary embolism, Raynaud's disease, varicose veins, venous ulcers

- Congenital heart disease such as coarctation of the aorta, ventricular septal defect (VSD), atrial septal defect (ASD), patent ductus arteriosus (PDA), and presentation of these both in children and adults
- Coronary heart disease, including complications such as mural thrombus, ventricular aneurysm and rhythm disturbance
- Drug-induced heart disease (for example, secondary to cancer treatment with chemotherapy or radiotherapy, recreational drugs)
- Heart failure: acute and chronic, including left ventricular dysfunction, right heart failure and cor pulmonale
- Hypertension: essential (and its classification into stages), secondary and malignant
- Infections such as viral myocarditis, infective endocarditis, pericarditis and rheumatic fever, and their complications
- Complications and malfunction of pacemakers relevant to primary care
- Pulmonary hypertension and its causes (for example, fibrotic lung disease and recurrent pulmonary emboli)
- Risk factors for coronary heart disease and other thromboembolic diseases such as lipid disorders, diabetes and hypertension
- Valvular problems such as mitral, tricuspid, pulmonary and aortic stenosis, and regurgitation

Examinations and procedures

- Cardiovascular system examination, including methods for monitoring blood pressure and pulse oximetry
- Use of emergency equipment, including defibrillator and oxygen delivery
- Emergency cardiopulmonary resuscitation

Investigations

- Knowledge and application of current risk assessment tools, such as CHA_2DS_2VASc and ORBIT for AF and QRISK for cardiovascular risk
- Relevant blood investigations such as cardiac enzymes, natriuretic peptides or D-dimer
- Investigations including home and ambulatory blood pressure (BP) monitoring, electrocardiogram (ECG), exercise ECG, 24-hour and event monitoring ECGs, echocardiography, venous dopplers and ankle brachial pressure index (ABPI) measurement.
- Additional investigations and interventions such as coronary angiography and stents, perfusion scanning, and computed tomography (CT) scans

Service issues

- Cardiovascular health screening, including AAA screening, BP, cholesterol and HbA1c checks
- Local service provision for cardiovascular healthcare

- Disease registers and data-recording templates for opportunistic and planned monitoring of cardiovascular problems to ensure continuity of care between different healthcare providers
- Effective and appropriate acute and chronic disease management, including medication, prevention, rehabilitation and palliative care for those with end-stage cardiac failure
- Recognition of the social determinants of health in relation to cardiovascular disease
- Current population trends in the prevalence of risk factors and cardiovascular disease in the community
- Cardiovascular rehabilitation after a stroke or cardiac event
- Appropriate support services nationally and locally (for example, smoking cessation and weight loss)
- Safe prescribing, including indications for and monitoring of commonly used drugs such as antihypertensive drugs, anticoagulants and statins
- Management of polypharmacy, which is common in patients with cardiovascular problems
- Referral pathways to investigate inherited cardiac conditions

Case discussion

David Black is a 58-year-old bus driver who presents to your clinic with a history of central chest pain radiating to the left arm. This occurs on exertion and is relieved by rest. It started about one month ago and has not got any worse.

He has no history of hypertension, diabetes or hyperlipidaemia that you are aware of, but he rarely visits the practice. He smokes. There is no family history of ischaemic heart disease, but his mother developed diabetes from the age of 65.

On examination, he is comfortable. His BP is 155/95 with a pulse rate of 85 beats per minute (bpm) and regular. His BMI is 32 kg/m^2.

(*Source: Adapted from C. Heneghan in Cardiovascular Disease in Primary Care – a guide for GPs, RCGP Publications, 2010.*)

Questions

These questions are provided to prompt you to consider the key points of the case. They can form the basis for a case-based discussion with your educational supervisor and will assist you in writing reflective entries in your ePortfolio. The questions are examples to trigger reflection and are not intended to be comprehensive.

Core capabilities	Questions
Fitness to practise This is about professionalism and the actions expected to protect people from harm. This includes the awareness of when an individual's performance, conduct or health, or that of others, might put patients, themselves or their colleagues at risk.	How important is it for me to model healthy living for my patients? What actions can I take to help promote an organisational culture in which the health of the members is valued and supported? How might my own feelings towards someone who smokes and is overweight impact on the care I give to a patient who develops cardiovascular disease?
An ethical approach This is about practising ethically with integrity and a respect for equality and diversity.	How might cardiovascular disease prevention vary in different cultures and population groups? Should overweight smokers be offered open access to treatment if they do not lose weight or stop smoking?
Communicating and consulting This is about communication with patients, the use of recognised consultation techniques, establishing and maintaining patient partnerships, managing challenging consultations, third-party consulting, the use of interpreters and consulting modalities across the range of in-person and remote methods.	How would I explain cardiovascular risk to this patient? How could I influence a change in David's lifestyle? How would I explore this patient's ideas, concerns and expectations?
Data gathering and interpretation This is about the gathering, interpretation and use of data for clinical judgement, including information gathered from the history, clinical records, examination and investigations.	What additional information do I need? If I have access to same-day ECG, how confident am I in interpreting it? Would blood tests be useful? Which ones?

Clinical examination and procedural skills This is about clinical examination and procedural skills. By the end of training, the GP registrar must have demonstrated competence in general and systemic examinations of all the clinical curriculum areas, including the five mandatory examinations and a range of skills relevant to general practice.	How well can I assess and manage a patient presenting with acute breathlessness due to left ventricular failure (LVF)?
Decision-making and diagnosis This is about having a conscious, organised approach to making diagnosis and decisions that are tailored to the particular circumstances in which they are required.	What is my differential diagnosis? What drug treatment might I suggest for David? How does the prevalence of cardiovascular disease vary within the UK population?
Clinical management This is about the recognition and a generalist's management of patients' problems.	What are the national guidelines for diagnosis and long-term treatment in this case? What would be the key features of my safety-netting conversation with David? What advice would I give him about smoking cessation?
Medical complexity This is about aspects of care beyond the acute problem, including the management of comorbidity, uncertainty, risk and health promotion.	How would I manage David's multiple risk factors at this initial consultation? What can I do to help manage the risk in this patient? What are the criteria for referral to secondary care and what would I include in my referral letter? Am I familiar with the Driver and Vehicle Licensing Agency (DVLA) guidance on fitness to drive?

Team working This is about working effectively with others to ensure good patient care and includes sharing information with colleagues and using the skills of a multiprofessional team.	How might other members of the practice team be involved in the care of this patient? What rapid access clinics are available locally?
Performance, learning and teaching This is about maintaining the performance and effective CPD of oneself and others. The evidence for these activities should be shared in a timely manner within the portfolio.	How do I keep up to date with developments in cardiovascular health? What learning opportunities does this case present for me? What quality improvement could I consider for patients with ischaemic heart disease at my practice?
Organisation, management and leadership This is about understanding how primary care is organised within the NHS, how teams are managed and the development of clinical leadership skills.	How do I record cardiovascular risk on my information technology (IT) system? What SNOMED CT (Systemized Nomenclature of Medicine – Clinical Terms) code might I use for this patient? What computerised resources might I use in the consultation with David? How could I use the IT system and electronic health records to develop a search to identify patients with a particular condition, and use this to improve quality of care?
Holistic practice, health promotion and safeguarding This is about the ability of the doctor to operate in physical, psychological, socio-economic and cultural dimensions. The doctor is able to take into account the patient's feelings and opinions. The doctor encourages health improvement, self-management, preventative medicine and shared care planning with patients and their carers. The doctor has the skills and knowledge	How do I take my patients' occupations into account when assessing, managing and advising them? What are David's home circumstances? What would I advise him about having sex? What about driving and fitness to fly? What patient information resources are available? What are the social and psychological impacts of David's cardiovascular problems on his friends and dependants?

to consider and take appropriate safeguarding actions.	How would I address the cultural significance of the heart as a seat of emotions?
Community health and environmental sustainability This is about the management of the health and social care of the practice population and local community. It incorporates an understanding of the interconnectedness of health of populations and the planet.	What community resources are available for cardiovascular disease prevention in my area? Are there any important characteristics of the local community that might impact on patient care, particularly the epidemiological, social, economic and ethnic features?

How to learn this area of practice

Work-based learning

General practice is an excellent place for you to learn how to manage cardiovascular problems. Patients will present with a wide range of symptoms and at varying stages in the natural history of their illness. Critical, professional discussions with your trainer will help GP registrars to develop problem-solving skills. Supervised practice will also give GP registrars confidence.

In particular, the GP registrar should be able to learn about risk factor management and gain experience in the management of cardiovascular problems as they present (acute and chronic), including emergencies. Primary care is also the best place to learn about cardiovascular chronic disease management (including angina, heart failure, hypertension, post-myocardial infarction (MI), peripheral vascular disease and stroke).

The acute hospital setting is a good place to learn about management of cardiovascular emergencies including ACS, MI, stroke and aortic aneurysms. This could be in a variety of secondary care placements, including cardiology, emergency medicine and general medicine. Some GP specialty training programmes have placements of varying lengths with cardiologists. In these you may also get the opportunity to become familiar with the invasive management of cardiovascular problems, including angioplasty, coronary artery bypass grafts, transplantation and other forms of vascular surgery (such as carotid endarterectomy and vascular bypass), many of which you are likely to have to discuss with your patients in primary care during your career.

Cardiovascular care is increasingly delivered via specialist community clinics where GP registrars may have the opportunity to observe the investigation and management of common cardiovascular problems and familiarise themselves with local care pathways. Outpatient or clinic settings are ideal places for seeing concentrated groups of patients with cardiovascular problems. They also provide you with opportunities to learn about secondary care investigation of cardiovascular problems (exercise tests, radionucleotide

scans, magnetic resonance imaging (MRI) and CT scans, carotid dopplers, angiography and echocardiography).

Self-directed learning

You can find eLearning module(s) relevant to this topic guide at elearning for healthcare.

Many postgraduate deaneries provide courses on cardiovascular problems. Other providers include universities and the RCGP. There is a growing eLearning resource to help you consolidate and build on the knowledge you have gained in the workplace.

You can learn about patients' experiences of living with cardiovascular problems, from early symptoms to diagnosis and management, through the wide range of multimedia clips at Healthtalk.

Learning with other healthcare professionals

Chronic disease management in primary care is a multidisciplinary activity. As a GP registrar it is important for you to attend nurse-led cardiovascular disease annual review assessments in practice and gain an understanding of the follow-up of hypertensive patients in the practice's clinics, which are often led and delivered by a practice nurse. It is also important to understand the role of district nurses in the assessment and management of leg ulcers or ankle oedema by attending their clinics or home visits. You should also take the opportunity to observe cardiovascular rehabilitation programmes led by physiotherapists.

Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- Interpreting ECG tracings
- Medical management of hypertension
- Cardiovascular risk assessment

Simulated Consultation Assessment (SCA)

- A man is concerned that he may have heart disease, having experienced chest pain when he exercises at the gym
- A woman with well-controlled heart failure has increasing exertional dyspnoea over the past fortnight
- A father is concerned about sudden death in young athletes and requests a routine ECG for his 12-year-old son, who has joined a running club

Workplace-based Assessment (WPBA)

- Having to explain their need for a pacemaker to a patient who has not understood the nature of their condition
- Log entry about the logistics and value of the practice coronary heart disease clinic
- Consultation Observation Tool (COT) about advice for a man requesting a calcium score after a private medical examination when you are unsure about the evidence for this
- Clinical examination and procedural skills (CEPS) to demonstrate how to perform a focused cardiovascular examination in primary care

Dermatology

About this topic guide

This topic guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you understand important issues relating to dermatology by illustrating the key learning points with a case scenario and questions. It also contains tips and advice for learning, assessment and continuing professional development (CPD), including guidance on the knowledge relevant to this area of general practice.

Each topic guide is intended to illustrate important aspects of everyday general practice, rather than provide a comprehensive overview of each clinical topic. It should therefore be considered in conjunction with other topic guides and educational resources.

The role of the GP in dermatology

As a GP, your role is to:

- diagnose, treat and advise on common skin conditions efficiently
- recognise the importance of the psychosocial impact of skin problems
- prescribe appropriately and safely
- appreciate the complexity of care that is needed with some skin problems
- share management with secondary care where needed.

Knowledge and skills guide

For each problem or disease, consider the following areas within the general context of primary care:

- the natural history of the condition, including whether it is acute or chronic
- the incidence and prevalence, including in different demographic groups
- typical and atypical presentations
- recognition of normal variations throughout life
- risk factors, including lifestyle, socio-economic, environmental and genetic factors
- diagnostic features and differential diagnosis
- recognition of ‘alarm’ or ‘red flag’ features
- appropriate and relevant investigations
- interpretation of test results
- management, including initial and continuing care, chronic disease monitoring and emergency care
- patient and carer information and education including self-care
- prognosis.

Symptoms and signs

- Birthmarks
- Blisters
- Dry skin and scaling
- Erythema
- Hair loss and hirsutism
- Hyperhidrosis
- Hyperpigmentation, hypopigmentation and depigmentation
- Lichenification
- Nail dystrophies
- Pruritus
- Purpura and petechiae
- Pustules and boils
- Rashes and eruptions
- Scaly and itchy scalp
- Skin lesions, including dermal and subcutaneous lesions
- Ulceration, including leg ulcers and pressure sores

Common and important conditions

- Acne rosacea, rhinophyma, perioral dermatitis
- Acne vulgaris, including indications and side effects of isotretinoin
- Blistering diseases including pemphigoid, pemphigus and porphyria
- Dermatological emergencies such as Stevens-Johnson syndrome, toxic epidermal necrolysis, erythroderma and staphylococcal scalded skin syndrome
- Eczema: infantile, childhood, atopic, seborrhoeic, contact allergic, irritant (including occupational), discoid, varicose or asteatotic
- Hair disorders, including alopecia, hirsutism, fungal infection, infestations (including lice)
- Hidradenitis suppurativa
- Hypopigmentation (such as vitiligo) and hyperpigmentation (such as acanthosis nigricans)
- Infections: viral (such as warts, molluscum contagiosum, herpes simplex and zoster), bacterial (for example, staphylococcal + MRSA (methicillin-resistant staphylococcus aureus), streptococcal), fungal (such as skin, nails), spirochaetal (for example Lyme disease, syphilis), tuberculosis (TB), infestations (such as scabies, lice), travel-acquired (for example, leishmaniasis)
- Lichen simplex, lichen planus, granuloma annulare, lichen sclerosus, morphoea
- Light-sensitive disorders such as polymorphic light eruption, porphyria, drug reactions
- Light treatments such as ultraviolet B (UVB) and psoralen + ultraviolet A (PUVA)
- Pityriasis rosea and pityriasis versicolor
- Pruritus, either generalised or localised, including underlying non-dermatological causes (for example, thyroid disease, iron deficiency, pregnancy)

- Psoriasis: plaque, guttate, flexural, scalp, nails, pustular and erythrodermic; associated morbidity, including physical (such as cardiovascular disease) and psychological (such as depression)
- Seborrhoeic keratosis
- Skin manifestations of psychiatric conditions, such as dermatitis artefacta and trichotillomania
- Skin manifestations of internal disease, including pyoderma gangrenosum, systemic lupus erythematosus (SLE), discoid lupus erythematosus (DLE), necrobiosis lipoidica, erythema nodosum, erythema multiforme, neurofibromatosis type 1, dermatitis herpetiformis, dermatomyositis, vitamin and mineral deficiencies such as scurvy
- Skin tumours, including:
    - benign lesions (for example, pigmented naevi, dermatofibroma, cysts)
    - malignant lesions (such as malignant melanoma, squamous cell carcinoma, basal cell carcinoma, mycosis fungoides, Kaposi's sarcoma, metastatic tumours)
    - lesions with malignant potential (for example, solar keratoses, Bowen's disease, cutaneous horns and keratoacanthomas)
- Ulcers and their causes, for example, arterial, venous, neuropathic, pressure, vasculitic, malignant
- Urticaria, angioedema and allergic skin reactions, including adverse drug reactions
- Wounds (such as burns and scalds), scar formation and complications

Examinations and procedures

- Common terminology used to describe skin signs and rashes (such as macule, papule)
- Examination of the rest of the skin, nails, scalp, hair and systems such as joints, where appropriate (for example, in psoriasis)
- The need to recognise skin conditions across a range of skin types

Investigations

- Skin and nail sampling, immunological tests including patch and prick testing, biopsy, photography and dermoscopy
- Relevant blood tests for underlying causes of skin conditions (such as lupus, thyroid disease)

Service issues

- Dermoscopy: indications, availability in practice, when to refer
- Waiting times for local specialist services
- Role of and access to other health professionals (such as specialist nurses, tissue viability nurses, podiatrists)

Case discussion

Jane Smith is 36 years old. She is a teacher and lives with her long-term partner. They have two daughters, aged 10 and eight. She suffers from psoriasis, has borderline hypertension and a high body mass index (BMI) of 31 kg/m^2. She smokes 20 cigarettes a day, as does her partner. As you are the whole family's GP, you are aware that their relationship has been unhappy from time to time.

Jane has tried steroid creams of varying potency, and more recently she has been using a vitamin D analogue ointment but finds this quite 'irritant' and so has abandoned it. She has previously had light therapy but tells you that a further course would be very inconvenient as she works all week.

You ask her how having psoriasis makes her feel and she bursts into tears. 'No one has ever asked me that before,' she says. Jane feels that her psoriasis looks awful, and she is conscious that she leaves a trail of skin scales wherever she goes. She refuses to take her daughters swimming and is so unhappy about exposing her body that she cannot get undressed in front of her partner. They have not made love for years. Recently she struggled to hide her tears when her daughter said, 'Why do you never wear pretty skirts like my friend Kirsty's mum?'

Questions

These questions are provided to prompt you to consider the key points of the case. They can form the basis for a case-based discussion with your educational supervisor and will assist you in writing reflective entries in your ePortfolio. The questions are examples to trigger reflection and are not intended to be comprehensive.

Core capabilities	Questions
Fitness to practise This is about professionalism and the actions expected to protect people from harm. This includes the awareness of when an individual's performance, conduct or health, or that of others, might put patients, themselves or their colleagues at risk.	How do my own values and experiences influence my attitudes to treating skin problems? How hard should I work to help Jane if she seems unmotivated?
An ethical approach This is about practising ethically with integrity and a respect for equality and diversity.	How can I balance my patients' needs with the availability of commissioned services?

	How can I maintain confidentiality between members of the same family who are all patients at the surgery?
Communicating and consulting This is about communication with patients, the use of recognised consultation techniques, establishing and maintaining patient partnerships, managing challenging consultations, third-party consulting, the use of interpreters and consulting modalities across the range of in-person and remote methods.	What further questions would I ask to explore Jane's ideas, concerns, and expectations? How might I help Jane to develop her own motivation to lose weight or stop smoking?
Data gathering and interpretation This is about the gathering, interpretation and use of data for clinical judgement, including information gathered from the history, clinical records, examination and investigations.	What tools could I use to measure severity (such as Dermatology Life Quality Index (DLQI) or Pain Disability Index (PDI))? Given the increased cardiovascular (CV) risk in patients with psoriasis, what tests or examinations could I perform to get an objective idea of Jane's overall CV risk (such as QRISK3)? How would I explain this risk to Jane in a way that she could understand easily?
Clinical examination and procedural skills This is about clinical examination and procedural skills. By the end of training, the GP registrar must have demonstrated competence in general and systemic examinations of all the clinical curriculum areas, including the five mandatory examinations and a range of skills relevant to general practice.	What other body systems would I examine in this case, and what would I be looking for?
Decision-making and diagnosis This is about having a conscious, organised approach to making diagnosis and decisions that are tailored to the particular circumstances in which they are required.	Am I confident I can diagnose psoriasis and distinguish it from other common skin conditions? Am I confident that I would know when to step-up or step-down treatment?

Clinical management This is about the recognition and a generalist's management of patients' problems.	What topical treatments might I prescribe for the various affected areas? How would I approach discussions about the inheritance of psoriasis?
Medical complexity This is about aspects of care beyond the acute problem, including the management of comorbidity, uncertainty, risk and health promotion.	Should I consider referring Jane for consideration of oral second-line therapies (such as methotrexate or ciclosporin)? If so, what advice would I give prior to referral (noting that she is a smoker and has borderline hypertension)? If her treatment is going to be topical, how is she going to treat her back and other hard-to-reach places?
Team working This is about working effectively with others to ensure good patient care and includes sharing information with colleagues and using the skills of a multiprofessional team.	What resources might be available in the primary health care team to help me manage this patient? Are there any other members of the team who could help? Are there any services I could signpost Jane to that might offer help with her relationship?
Performance, learning and teaching This is about maintaining the performance and effective CPD of oneself and others. The evidence for these activities should be shared in a timely manner within the portfolio.	How could I design a quality improvement project in my surgery around psoriasis? What advice would I give regarding the use of topical steroids in psoriasis?
Organisation, management and leadership This is about understanding how primary care is organised within the NHS, how teams are managed and the development of clinical leadership skills.	What advice might I give about a prepayment prescription? How can I record the distribution of her psoriatic plaques on the computer software?

Holistic practice, health promotion and safeguarding This is about the ability of the doctor to operate in physical, psychological, socio-economic and cultural dimensions. The doctor is able to take into account the patient's feelings and opinions. The doctor encourages health improvement, self-management, preventative medicine and shared care planning with patients and their carers. The doctor has the skills and knowledge to consider and take appropriate safeguarding actions.	Jane is a smoker. Should I use this opportunity to discuss this with her? What is the additional risk of chronic, moderate or severe psoriasis accelerating atherosclerosis? How will I discuss cardiovascular system risk factors? What might be the potential differences between my agenda as the doctor and Jane's agenda as the patient?
Community health and environmental sustainability This is about the management of the health and social care of the practice population and local community. It incorporates an understanding of the interconnectedness of health of populations and the planet.	Do we provide sufficient support in the community for lifelong dermatological conditions? When I look around my environment, what things do I see that promote or discourage good skin health? What are the attitudes of society to people with skin conditions?

How to learn this area of practice

Work-based learning

Skin diseases are common, and many are chronic. They will therefore form a large part of your work as a GP. The patient is likely to be an expert on their own skin and can often tell you a lot about their condition. It can be helpful to develop a 'longitudinal consultation' by inviting the patient to come back to discuss their skin problem.

It is very easy to fall into the trap of dismissing many skin diseases as trivial (acne, for example), but patients often tell us that they have difficulty raising the issue of their skin problem, even with a health professional. The truth is that it can have a considerable impact on their lives and their psychosocial wellbeing. Recognising this and treating the condition well and sensitively makes an enormous difference.

Consider discussing with practice members referrals that are made to dermatology specialists by yourself and your colleagues to establish what exactly you and your patients are hoping to achieve from the referral. Review your referral again after the patient has been seen to decide whether the same benefit might have been achieved from resources available in primary care.

Consider arranging a Patient Satisfaction Questionnaire (PSQ) for patients with eczema or psoriasis in order to review your delivery of care. An annual DLQI assessment takes less than a minute to complete and would demonstrate to your patient that you are interested in the possible detrimental effect of their disease on their quality of life.

Also consider regularly auditing your patients who are on repeat prescriptions for psoriasis treatments. Have you considered whether they might have psoriatic arthritis, which they have previously dismissed as 'wear and tear'?

Attending community-based and GP with an Extended Role (GPwER) clinics can provide valuable learning opportunities. You can also reflect on each case and ask yourself: 'Why was referral deemed necessary and what value-added input has the specialist provided?'

Self-directed learning

Dermatology is high on the learning needs of most GP specialist registrars. As a result, you will find that talks on the subject are regularly included in many continuing education programmes. The Primary Care Dermatology Society (PCDS) aims to educate and disseminate high standards of dermatology in the community. It runs a regular series of 'Essential Dermatology' days up and down the country, as well as educational events on minor surgery and dermoscopy (skin surface microscopy for increasing the accuracy in diagnosing both pigmented and non-pigmented lesions). Other useful resources are available on the British Association of Dermatologists website and DermNet is a good source of pictures and information on a wide range of skin problems.

Learning with other healthcare professionals

Experienced GPs will have seen a lot of skin disease, so ask them for their thoughts. Our nursing colleagues too are a reservoir of knowledge. As well as dermatology nurse specialists, health visitors and district nurses also have valuable dermatological knowledge.

Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- Recognition of photographs of skin lesions from a diverse UK population
- Management of psoriasis
- Differential diagnosis of alopecia

Simulated Consultation Assessment (SCA)

- A woman who has patchy hair loss (photograph supplied)

- A man with dark skin has dry itchy skin with areas that have become darker and roughened (patient will provide photograph)
- A waiter with excessive sweating on palms and axillae, affecting his work

Workplace-based Assessment (WPBA):

- Consultation Observation Tool (COT) about a teenager with moderately severe acne
- COT about a mother whose baby has widespread infantile eczema
- Audio COT with a woman who has a rash that she thinks looks like Lyme disease following a weekend camping

Ear, nose and throat, speech and hearing

About this topic guide

This topic guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you understand important issues relating to ear, nose and throat (ENT) and mouth problems by illustrating the key learning points with a case scenario and questions. It also contains tips and advice for learning, assessment and continuing professional development (CPD), including guidance on the knowledge relevant to this area of general practice.

Each topic guide is intended to illustrate important aspects of everyday general practice, rather than provide a comprehensive overview of each clinical topic. It should therefore be considered in conjunction with other topic guides and educational resources.

The role of the GP in the care of people with ENT and mouth problems

As a GP, your role is to:

- identify symptoms that fall within the range of normal or are caused by self-limiting conditions
- know the epidemiology of, and understand how to recognise, oral, head and neck cancers, including the risk factors, and identify unhealthy behaviour (such as smoking) as well as being able to refer appropriately
- ensure that a patient's hearing impairment or deafness does not negatively impact on the communication between the patient and doctor
- promote the benefits of early intervention to ensure people who need hearing aids get the most out of them
- perform effective assessment, including conducting or interpreting more detailed tests (such as audiological tests, the Dix–Hallpike test) and treatment including procedures (for example, Epley manoeuvre) where indicated
- Demonstrate empathy and compassion towards patients with ENT symptoms that may prove difficult to manage (such as tinnitus, facial pain, unsteadiness, hearing loss).

Emerging issues in the care of people with ENT and mouth problems

- Guidelines for appropriate management are now widely available but not always used
- Management of patient expectations of the role of antibiotics and using an evidence-based approach to antibiotic prescribing

- Changes to smell and taste related to Covid-19 infection can be persistent and can have a significant effect on quality of life
- Covid-19 has brought extra communication challenges in healthcare settings for people with hearing impairment, due to increasing use of telephone and video consultations and use of face masks
- Head and neck cancer rates are increasing, and outcomes depend on early diagnosis
- High levels of undiagnosed hearing loss; many more people could benefit from hearing aids than are currently doing so
- E-cigarettes are being increasingly used to aid smoking cessation. Ongoing research into the safety of e-cigarettes and their use for smoking cessation is underway. As a GP you should be aware of the latest evidence and guidance on e-cigarettes, and smoking cessation more generally, and use your clinical judgement on an individual patient basis

Knowledge and skills guide

For each problem or disease, consider the following areas within the general context of primary care:

- the natural history of the condition, including whether acute or chronic
- the incidence and prevalence, including in different demographic groups
- typical and atypical presentations
- recognition of normal variations throughout life
- risk factors, including lifestyle, socio-economic and genetic factors
- diagnostic features and differential diagnosis
- recognition of 'alarm' or 'red flag' features
- appropriate and relevant investigations
- interpretation of test results
- management, including initial and continuing care, chronic disease monitoring and emergency care
- patient and carer information and education, including self-care
- prognosis.

Symptoms and signs

- Symptoms within the normal range that require no treatment, such as small neck lymph nodes in healthy children and 'geographic tongue'
- Cough
- Deafness and the differentiation of types of hearing loss, including sudden hearing loss
- Dental problems and immediate necessary treatment (for example analgesia, antibiotics and signposting for definitive care)
- Disturbance of smell and taste
- Earache and discharge

- Epistaxis
- Facial dysfunction: sensory and motor
- Facial pain
- Head and neck lumps
- Hoarseness
- Jaw pain
- Rhinitis and nasal obstruction
- Salivation problems, including swelling and obstruction of glands, excessive and reduced salivation
- Sore throat and mouth
- Sore tongue and changes in taste
- Tinnitus
- Vertigo and dizziness
- Snoring and sleep apnoea

Common and important conditions

- Aesthetic and reconstructive surgery and botulinum toxin therapies
- Congenital abnormalities
- Cranial nerve disorders
- Disorders of the salivary glands
- Ear disorders: including otitis externa, otitis media with and without effusion, perforation of the ear drum, cholesteatoma and mastoiditis
- Emergency treatments such as tracheotomy
- Epidemiology of rarer but potentially serious conditions such as oral, head and neck cancer, taking into account risk factors and unhealthy behaviour
- Head and neck malignancies, including unidentified malignancies presenting with lymphadenopathy
- Hearing aids and cochlear implants, tinnitus maskers
- Hearing problems, including deafness tinnitus and associated speech or language disorders
- Increasing incidence of hearing loss in certain groups, such as people with a learning disability or dementia
- Nasal problems, including perennial and allergic rhinitis, postnasal drip, epistaxis and septal deviation
- Oral problems, including pain, infections, premalignant conditions and malignancies
- Sinus problems, including infection, polyps and allergic rhinosinusitis
- Throat problems such as infections, globus or gastroesophageal reflux causing a cough
- Tracheotomy management in primary care
- Vertigo: central (such as brainstem stroke) and peripheral (for example, benign paroxysmal positional vertigo, vestibular neuronitis, Ménière's disease).
- Vocal disorders such as hoarseness, dysphonia and aphonia, and underlying causes (for example, vocal cord nodules, laryngeal nerve palsy)

Examinations and procedures

- Otoscopic appearances of the normal and abnormal ear
- Tests of hearing such as tympanometry, audiometry, tuning fork tests including the Weber and Rinne tests, neonatal and childhood screening tests
- Detailed tests where indicated (such as audiological tests and the Dix–Hallpike test to help diagnose benign paroxysmal positional vertigo (BPPV))
- Skills that can be used in primary care to effect a cure when indicated (such as the Epley manoeuvre)

Investigations

- Audiology testing
- X-ray, ultrasound, computed tomography (CT) and magnetic resonance imaging (MRI) scans
- Nasendoscopy
- Sleep studies

Service issues

- ENT, oral and facial symptoms may be manifestations of psychological distress, (such as globus pharyngeus, atypical facial pain, burning mouth syndrome)
- National paediatric screening programme for hearing loss; effects of ENT pathology on developmental delay (for example, 'glue ear' can impair a child's learning)
- Pathology in other systems may lead to ENT-related symptoms, such as gastro-oesophageal reflux disease (GORD) and cerebrovascular accident (CVA)
- Systemic disease such as haematological, dermatological and gastrointestinal problems may present with oral symptoms (for example, glossitis caused by iron deficiency anaemia)
- Referral criteria and pathways for patients with dental or gingival problems to their general dental practitioner or local community dental services
- Access to specialist services in oral medicine or oral and maxillofacial surgery for patients with oral disease
- Referral criteria and local provision for ear wax removal
- The impact of hearing loss on quality of life, the relationship between hearing loss and other long-term conditions (such as dementia) and community and cultural attitudes to deafness
- The need to equip the primary care working environment to ensure people who are deaf, or have hearing loss or speech impairment, can contact and access GP services easily, and communicate effectively in waiting areas and consultation rooms
- Referral criteria and provision of services for patients with loss of smell or taste relating to Covid-19 or other causes

- Community-specific aspects of oromucosal disease related to lifestyle (such as chewing paan, tobacco, betel nut, khat/qat, or reverse smoking)
- Influence of socio-economic status (especially vulnerable populations such as homeless people) on rates of head and neck malignancy
- Highly specialised and regionally based services, such as the provision of cochlear implants
- Relevant local and national guidelines, including fast-track referral guidance for suspected cancer

Case discussion

Mark Johnson is a 25-year-old solicitor who presents with persistent nasal obstruction, runny nose, watery eyes and regular sneezing. The problem is perennial and has been getting worse for years. He also has asthma. He has moved into a flat and has adopted a cat. The use of steroid sprays and antihistamines only marginally improves things, and he tells you he is 'fed up' with his symptoms and 'something has to be done'. He requests an immediate referral to a specialist. Your examination reveals some form of swelling in the nose, more noticeable on the right than the left.

Questions

These questions are provided to prompt you to consider the key points of the case. They can form the basis for a case-based discussion with your educational supervisor and will assist you in writing reflective entries in your ePortfolio. The questions are examples to trigger reflection and are not intended to be comprehensive.

Core capabilities	Questions
Fitness to practise This is about professionalism and the actions expected to protect people from harm. This includes the awareness of when an individual's performance, conduct or health, or that of others, might put patients, themselves or their colleagues at risk.	How do I feel when a patient says, 'something has to be done'? Why is this patient presenting now? What do I think his ideas, concerns and expectations might be?
An ethical approach This is about practising ethically with integrity and a respect for equality and diversity.	When should I refer? Would my decision to refer change if the patient had private health insurance?

Communicating and consulting This is about communication with patients, the use of recognised consultation techniques, establishing and maintaining patient partnerships, managing challenging consultations, third-party consulting, the use of interpreters and consulting modalities across the range of in-person and remote methods.	How do I feel about his demand for referral? How will I manage those feelings in the consultation? How might I deal with his frustrations and anger?
Data gathering and interpretation This is about the gathering, interpretation and use of data for clinical judgement, including information gathered from the history, clinical records, examination and investigations.	How can I determine if Mark has been compliant with treatment? How effective is allergy testing (paper radioimmunosorbent test (PRIST), radioallergosorbent test (RAST) or skin tests)? What triggers his symptoms?
Clinical examination and procedural skills This is about clinical examination and procedural skills. By the end of training, the GP registrar must have demonstrated competence in general and systemic examinations of all the clinical curriculum areas, including the five mandatory examinations and a range of skills relevant to general practice.	How do I determine whether the swellings in the nose are nasal turbinates or polyps, or part of the normal nasal cycle?
Decision-making and diagnosis This is about having a conscious, organised approach to making diagnosis and decisions that are tailored to the particular circumstances in which they are required.	How could the history help to determine the cause of his symptoms?
Clinical management This is about the recognition and a generalist's management of patients' problems.	What are the options available in managing this patient in general practice? What is the optimal treatment (drug and dosage)? What are the current guidelines for reducing exposure to house dust mites?

Medical complexity This is about aspects of care beyond the acute problem, including the management of comorbidity, uncertainty, risk and health promotion.	How might Mark's asthma and nasal symptoms be linked?
Team working This is about working effectively with others to ensure good patient care and includes sharing information with colleagues and using the skills of a multiprofessional team.	Who else might I involve in the management of this patient? If I refer him, what key features should go in the referral letter? Where can I direct Mark for further information about his condition?
Performance, learning and teaching This is about maintaining the performance and effective CPD of oneself and others. The evidence for these activities should be shared in a timely manner within the portfolio.	Do I have sufficient knowledge of nasal anatomy to allow me to detect any abnormality? If not, how could I improve my knowledge? What is the evidence for the effectiveness of common ENT treatments? What other resources do I need in my area?
Organisation, management and leadership This is about understanding how primary care is organised within the NHS, how teams are managed and the development of clinical leadership skills.	How would I know from my information technology (IT) system whether Mark has had a recent asthma review? What recall systems are in place? How can I check how frequently Mark has been getting any repeat medications?

Holistic practice, health promotion and safeguarding This is about the ability of the doctor to operate in physical, psychological, socio-economic and cultural dimensions. The doctor is able to take into account the patient's feelings and opinions. The doctor encourages health improvement, self-management, preventative medicine and shared care planning with patients and their carers. The doctor has the skills and knowledge to consider and take appropriate safeguarding actions.	How might these symptoms affect Mark's ability to work and study, and his social life? What would I advise if he asks whether the cat could be contributing to his symptoms?
Community health and environmental sustainability This is about the management of the health and social care of the practice population and local community. It incorporates an understanding of the interconnectedness of health of populations and the planet.	What are the resource issues relating to providing care for allergies in the NHS?

How to learn this area of practice

Work-based learning

As a GP registrar, you will find the frequency of ENT-related symptoms in primary care makes this the ideal environment for you to learn the basics of history-taking and examination (including identifying what is 'normal'). It is not uncommon for a clinician (GP or other healthcare professional) to have developed additional expertise in ENT, and working alongside such an individual can be very beneficial. Local ENT departments are usually very willing to have GP registrars sitting in outpatient clinics, and taking time to arrange a regular session in such a clinic will provide you with invaluable experience. The experience will be enhanced if you can see patients initially and then discuss examination findings and potential management with your supervising colleague.

The extensive use of endoscopes and microscopes will greatly facilitate your understanding of ENT pathology. In both scenarios, always ask for feedback on cases and look to use structured assessment tools (available online) to document your learning. Make the most of opportunities to observe and discuss common conditions such as hearing loss with an audiologist or hearing therapist.

The frequency of common oral-related symptoms in primary care and the limited undergraduate training in this area make it worth your while attending specialist clinics in oral medicine and oral and maxillofacial surgery. In these clinics you will learn how to examine the mouth, recognise and provide initial management of common oral conditions, and appreciate the presenting features of oral cancer and precancerous lesions.

Self-directed learning

You can find an eLearning module relevant to this topic guide at elearning for healthcare and at RCGP eLearning.

It is not uncommon to come across friends and relatives with ENT conditions and this can give you an insight into the impact on quality of life of what may be regarded as 'trivial conditions'. Examples include general upper respiratory tract infections, allergic and non-allergic rhinitis, snoring and deafness. Indeed, as a primary care physician it is essential that you understand the effect of a significant hearing loss on an individual's way of life. It is also important that you understand its isolating effect and appreciate the statement that 'blindness separates an individual from objects; deafness separates an individual from people'.

Learning with other healthcare professionals

As a GP registrar, gaining experience in other medical specialties will give you insight into dealing with common ENT and oral problems. In particular:

- Paediatrics – many children have ENT-related conditions that affect their general wellbeing and may compromise their education
- Medicine of the elderly – deafness and balance disorders are common
- Immunology – it is not uncommon for systemic allergy to present with symptoms and signs in the ear, nose, oral cavity or throat
- Dermatology – skin conditions affecting the face and scalp, and otitis externa, may present to skin specialists
- Respiratory medicine – both the upper and the lower airway often need to be treated together
- Oral medicine and oral and maxillofacial surgery – oral signs and symptoms may be a manifestation of underlying systemic disease
- Gastroenterology – for example, GORD that is causing coughing
- Hospital audiology clinics and hearing therapists
- Hearing loss clinics in the high street – these increase access to a range of services.

Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- Hearing loss in adults and children
- Recognition of red flags in ENT
- Common ENT symptoms such as vertigo

Simulated Consultation Assessment (SCA)

- An older woman has severe shooting pains in her left lower jaw
- A hearing-impaired man has troublesome tinnitus interfering with his sleep and concentration
- A middle-aged woman has sudden-onset disabling rotational dizziness: examination expected

Workplace-based Assessment (WPBA)

- Log entry about the referral criteria for a child with recurrent tonsillitis and the evidence for tonsillectomy as an intervention
- Clinical examination and procedural skills (CEPS) on examining a patient with unilateral deafness and the interpretation of the results
- Consultation Observation Tool (COT) about a singer with persistent hoarseness (or, for example, a patient with persistent loss of taste and smell following a Covid-19 infection)

Eyes and vision

About this topic guide

This topic guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you understand important issues relating to eyes and vision by illustrating the key learning points with a case scenario and questions. It also contains tips and advice for learning, assessment and continuing professional development (CPD), including guidance on the knowledge relevant to this area of general practice.

Each topic guide is intended to illustrate important aspects of everyday general practice, rather than provide a comprehensive overview of each clinical topic. It should therefore be considered in conjunction with other topic guides and educational resources.

The role of the GP in the care of people with eye and vision problems

As a GP your role is to:

- understand how visual loss and impairment can be a significant cause of physical and psychosocial morbidity, which can be a barrier to accessing healthcare. This can be mitigated by appropriate rehabilitation for visually impaired patients
- coordinate access to community and secondary care services
- undertake opportunistic health screening, ensuring that patients have regular eye tests and are referred appropriately and in a timely manner
- recognise how sight loss can interfere with mobility and lead to social isolation and difficulty in communication (such as use of telephones or computers), as well as the impact of poor eye health on confidence, mental health, activities of daily living, independent living and ability to work
- take a focused history, examine, diagnose and treat common eye conditions and know when to refer to specialist care.

Emerging issues in the care of people with eye and vision problems

- Eye disease impacts significantly on GP consultations and has wider social and economic consequences.
- Treating eye problems and effective screening are having an impact on the number of people with sight loss but there is much more to be done.
- Caring for those with sight loss goes beyond knowing which referral pathway should be used. GPs need to know how to access rehabilitation, low-vision aid services and help for patients to continue to live independently, and how to make general practices and written information accessible for those with poor vision.

- Sight loss occurs in conjunction with other complications of multiple morbidity and can make other aspects of care (such as being able to take medication safely) more complicated. People who cannot see may lose their non-verbal communication skills, and this should not affect or prejudice your interactions with or attitude to them.
- In the UK, the prevalence of sight loss due to cataract, macular degeneration, glaucoma and diabetic retinopathy is increasing as the population ages. Difficulties with reading small print, cooking, mobility, taking medication and recognising faces may be missed unless a careful history is taken. Visual acuity, contrast sensitivity and visual fields may be affected.

Knowledge and skills guide

For each problem or disease, consider the following areas within the general context of primary care:

- the natural history of the condition, including whether acute or chronic
- the incidence and prevalence, including in different demographic groups
- typical and atypical presentations
- recognition of normal variations throughout life
- risk factors, including lifestyle, socio-economic and genetic factors
- diagnostic features and differential diagnosis
- recognition of 'alarm' or 'red flag' features
- appropriate and relevant investigations
- interpretation of test results
- management, including initial and continuing care, chronic disease monitoring and emergency care
- patient and carer information and education including self-care
- prognosis.

Symptoms and signs

- Colour blindness, changes in colour vision
- Diplopia, squint and amblyopia
- Discharge from the eye
- Dry eyes
- Entropion or ectropion
- Eyelid swellings
- Excessive watering of the eye (epiphora)
- Falls
- Orbital swellings
- Red eye: painful or painless
- Visual disturbance: complete or partial loss of vision, distorted vision, floaters, flashes
- Visual field disturbance

Investigations

- Performing and interpreting fundoscopy, visual acuity tests and results, red reflex testing, visual field tests, Amsler charts
- Interpreting tonometry, optician reports and tests of colour vision
- Examining eyes for foreign bodies, and corneal staining with fluorescein
- Key blood tests (for example, for giant cell arteritis)

Common and important conditions

- Cataracts – congenital or acquired (such as drug-induced)
- Colour blindness
- Congenital, neonatal and childhood eye problems, such as prematurity, congenital cataract, vitamin A deficiency
- Conjunctivitis, including infectious causes (bacterial, viral, parasitic and chlamydial) and allergic causes
- Contact lens use, including infections such as acanthamoeba, corneal damage
- Diabetic eye disease
- Disorders of tears and tear ducts such as dacrocystitis, sicca syndrome, epiphora, dry eyes
- Disorders of the pupil such as Horner's syndrome, Holmes-Adie syndrome
- Dual sensory impairment and loss (vision and hearing)
- Episcleritis, corneal or dendritic ulcers, pterygium, pinguecula, corneal injury and erosions
- Eye trauma, including penetrating trauma, corneal abrasions, chemical burns, contusions, hyphaema
- Eyelid problems such as blepharitis, ectropion, entropion, chalazion, meibomian cysts, styes
- Genetic eye problems such as retinoblastoma, retinitis pigmentosa
- Glaucoma – acute, closed angle and chronic open angle
- Intracranial pathology affecting vision
- Keratitis, including association with other diseases such as rosacea, thyroid disease
- Keratoconus
- Loss of vision or visual disturbance; differential diagnoses and appropriate management, including timescale of urgency
- Macular degeneration – age-related (wet and dry), drusen
- Malignancy such as retinoblastoma, lymphoma, melanoma
- Ophthalmic herpes zoster
- Ophthalmic manifestations of infections such as syphilis, tuberculosis (TB), toxocariasis, toxoplasmosis
- Optic neuritis and neuropathy
- Orbital infections such as cellulitis, tumours
- Red eye – differential diagnoses and appropriate management, including timescale of urgency

- Refractive error, including myopia, hypermetropia, astigmatism
- Retinal problems including:
    - atrophy
    - detachment
    - haemorrhage, exudates, blood vessel changes associated with systemic diseases such as hypertension, diabetes, haematological diseases thromboses or emboli
    - tumours such as melanoma, neuroblastoma
    - vascular lesions
- Squint – childhood and acquired due to nerve palsy, amblyopia, blepharospasm
- Subconjunctival haemorrhage
- Systemic diseases with associated eye symptoms and signs, such as hypertension, diabetes, raised intracranial pressure, multiple sclerosis, sleep apnoea, giant cell arteritis
- The effect of stroke and migraine on vision
- Thyroid eye disease
- Uveitis, including knowledge of underlying associations such as inflammatory bowel disease, connective tissue diseases
- Vitreous detachment

Service issues

- Appropriate and cost-effective prescribing (for example, eye drops and biological therapies)
- Accessibility of clinic premises for people with visual impairment
- Compliance with the Accessible Information Standard, for example providing information in audio, Braille, large print, or audio format
- Benefits of certification of visual impairments and how this enables access to benefits, and local authority assessment of need
- The level of visual deficit required before certification of visual impairment can be issued
- Guide Dogs for the Blind Association
- Liaison with other agencies and reminder systems to ensure appropriate follow-up of eye conditions
- Local NHS guidance on funding for certain treatments (such as cataract surgery)
- Relevant policies and legislation (including disability)
- Restrictions on driving and employment, including DVLA (Driver and Vehicle Licensing Agency) guidance for visual acuity
- Services available to those with vision problems; from acute hospital to community optician, support from charities and the third sector
- Types of low-vision aids available (such as large print, audio, magnifiers, long cane, Braille)

Case discussion

It is Monday morning and your second patient is Ibrahim Mirza, who is 75 years old. He was last seen six months ago regarding his problems with sleeping. He has lived alone since his wife died suddenly from a stroke three years previously.

He is accompanied by his daughter, who you have not met before. She tells you that her dad has asked her to come along as he is a bit upset since his visit to his optometrist last week. Ibrahim says, 'It was not the girl I usually see at the optician. This man flashed a lot of lights in my eyes then said I had a major problem with my vision and should come to see you about going to the hospital. What's worse is that he said I shouldn't drive my car.' His daughter adds, 'Dad was so upset he didn't even ask what was wrong. His car is his lifeline. I went back with him to the optician and they told me he probably has something called ARMD – he wrote it down for me.'

Ibrahim has no relevant previous history; he is not taking any medication and comes in regularly for his flu jab and health checks with the nurse. He had noticed his vision was deteriorating but assumed this was because he needed new glasses; that was why he went for an eye check. He says, 'I don't go out at night any more as I can't see well enough. I also noticed a funny thing – I can see the television better when I look from the side rather than from the front.'

The optometrist noted a marked loss of visual acuity since Ibrahim's last eye examination and feels that this is likely to be due to age-related macular degeneration. You advise Ibrahim that you will refer him to the local eye department and print off some information regarding eye charities in large print, which he can read while he awaits his appointment.

Questions

These questions are provided to prompt you to consider the key points of the case. They can form the basis for a case-based discussion with your educational supervisor and will assist you in writing reflective entries in your ePortfolio. The questions are examples to trigger reflection and are not intended to be comprehensive.

Core capabilities	Questions
Fitness to practise This is about professionalism and the actions expected to protect people from harm. This includes the awareness of when an individual's performance, conduct or health, or that of others, might put patients, themselves or their colleagues at risk.	How do I feel about telling Ibrahim that he must not drive his car?

An ethical approach This is about practising ethically with integrity and a respect for equality and diversity.	What would I do if he drives the car against my advice?
Communicating and consulting This is about communication with patients, the use of recognised consultation techniques, establishing and maintaining patient partnerships, managing challenging consultations, third-party consulting, the use of interpreters and consulting modalities across the range of in-person and remote methods.	How can I explore the psychological impact of visual loss in the consultation with Ibrahim? How would I explain the likely outcome of his condition? What do I think might be the obstacles to Ibrahim having regular eye tests? How would I explore all those issues?
Data gathering and interpretation This is about the gathering, interpretation and use of data for clinical judgement, including information gathered from the history, clinical records, examination and investigations.	What lifestyle factors would I record in the notes?
Clinical examination and procedural skills This is about clinical examination and procedural skills. By the end of training, the GP registrar must have demonstrated competence in general and systemic examinations of all the clinical curriculum areas, including the five mandatory examinations and a range of skills relevant to general practice.	Why should I use a pinhole when assessing visual acuity? When is an Amsler grid useful in assessing a patient? How confident do I feel performing fundoscopy? How could I improve my clinical examination skills in this area?
Decision-making and diagnosis This is about having a conscious, organised approach to making diagnosis and decisions that are tailored to the particular circumstances in which they are required.	What other blinding eye conditions present with gradual onset?

Clinical management This is about the recognition and a generalist's management of patients' problems.	Which of my patients are entitled to free eye tests under the NHS? How easy is it to arrange for my patients to receive an eye test at home?
Medical complexity This is about aspects of care beyond the acute problem, including the management of comorbidity, uncertainty, risk and health promotion.	What comorbidities are common with sight loss? What are the risk factors for age-related macular degeneration (ARMD/AMD) and how common is it? What role has Ibrahim's bereavement played in this scenario?
Team working This is about working effectively with others to ensure good patient care and includes sharing information with colleagues and using the skills of a multiprofessional team.	How urgent is this hospital referral? What role does an optician play in caring for patients with eye conditions? How can I collaborate with local opticians to provide a better service for my patients? Can I read the GOS (General Ophthalmic Services) letter from the optician and understand what the different terms mean?
Performance, learning and teaching This is about maintaining the performance and effective CPD of oneself and others. The evidence for these activities should be shared in a timely manner within the portfolio.	What are the current issues around treating AMRD? How do I keep myself updated about ophthalmological conditions? How confident am I in using an ophthalmoscope?
Organisation, management and leadership This is about understanding how primary care is organised within the NHS, how teams are managed and the development of clinical leadership skills.	How should I ensure that my patients are not 'lost to follow-up?' What does the practice provide to support visually impaired patients?

Holistic practice, health promotion and safeguarding This is about the ability of the doctor to operate in physical, psychological, socio-economic and cultural dimensions. The doctor is able to take into account the patient's feelings and opinions. The doctor encourages health improvement, self-management, preventative medicine and shared care planning with patients and their carers. The doctor has the skills and knowledge to consider and take appropriate safeguarding actions.	How will I manage the psychological impact of sight loss in Ibrahim? Why do I think Ibrahim did not seek help earlier for the problems with his vision? What do I know about Ibrahim's living accommodation? Will he need additional support at home?
Community health and environmental sustainability This is about the management of the health and social care of the practice population and local community. It incorporates an understanding of the interconnectedness of health of populations and the planet.	What social benefits and services might be available to this patient and his carers if he is certified visually impaired? Where do I find the DVLA rules on sight impairment and who is required to inform the DVLA? What other health professionals in the community could help in managing Ibrahim's vision problems?

How to learn this area of practice

Work-based learning

In general practice you can learn how to manage eye problems within the limited time and resources available. You should also take the opportunity to find out about other agencies, both statutory and voluntary, that provide support for patients with chronic eye disorders in the community.

As a GP registrar, you should try, if possible, to attend some secondary care-based ophthalmology clinics and/or eye emergency units to learn about both acute and chronic conditions and how to conduct a thorough eye assessment. It would also be useful for you to attend an operating session to gain an understanding of cataract surgery, perhaps by accompanying a patient on their journey.

Self-directed learning

You can find an eLearning module(s) relevant to this topic guide at elearning for healthcare and RCGP eLearning.

The Royal National Institute of Blind People (RNIB) has a helpful website, including GP-related resources. The DVLA offers guidelines on assessing fitness to drive and the Royal College of Ophthalmologists has a range of patient information booklets on common eye conditions.

Learning with other healthcare professionals

Optometrists are key members of the primary healthcare team and are increasingly involved in working in partnership with GPs in the management of diabetic patients and in screening for glaucoma and other eye problems. Meeting with them provides an excellent opportunity for discussing the impact of chronic eye problems and issues of screening and prevention. As a GP registrar you should attend your local optometrist to gain a better understanding of their skills and their contribution to primary care teams.

Structured learning

Specific workshops may be run by local hospitals or your RCGP faculty, for example.

Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- Differential diagnosis of causes of an acute red eye
- Recognition of serious eye disease in a retinal photograph
- Interpretation of visual field charts

Simulated Consultation Assessment (SCA)

- An elderly man has a rapid deterioration in vision over the past month; examination expected (Snellen charts supplied)
- A gardener has troublesome allergic conjunctivitis and hay fever despite using over-the-counter eye drops and antihistamine tablets
- A schoolteacher presents with a painful eye and blurred vision; examination (photo provided) suggests uveitis

Workplace-based Assessment (WPBA)

- Log entry reflecting on the local optician who frequently requests hospital referrals for patients
- Log entry about a tutorial on ‘acute red eye’ and your subsequent management of the next three patients with this symptom
- Consultation Observation Tool (COT) about an elderly woman who has watering eyes

Gastroenterology

About this topic guide

This topic guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you understand important issues relating to gastroenterology by illustrating the key learning points with a case scenario and questions. It also contains tips and advice for learning, assessment and continuing professional development (CPD), including guidance on the knowledge relevant to this area of general practice.

Each topic guide is intended to illustrate important aspects of everyday general practice, rather than provide a comprehensive overview of each clinical topic. It should therefore be considered in conjunction with other topic guides and educational resources.

The role of the GP in gastrointestinal health

As a GP, your role is to:

- diagnose, investigate, and manage digestive symptoms using history, examination, monitoring and referral where appropriate. Take into account how digestive symptoms can often be multiple and imprecise
- communicate effectively and consider the psychosocial impact of digestive problems, including the potential difficulties for some patients in discussing digestive symptoms due to embarrassment and/or social stigma
- intervene urgently when patients present with emergencies related to digestive health
- coordinate care and collaborate with other organisations and members of the multidisciplinary team, leading to effective and appropriate acute and chronic digestive disease management
- offer advice and support to patients, relatives and carers regarding prevention, prescribing, monitoring and self-management (such as lifestyle interventions including diet, healthy weight, alcohol and drugs, stress reduction and primary cancer and liver disease prevention).

Knowledge and skills guide

For each problem or disease, consider the following areas within the general context of primary care:

- the natural history of the condition, including whether acute or chronic
- the incidence and prevalence, including in different demographic groups
- typical and atypical presentations
- recognition of normal variations throughout life
- risk factors, including lifestyle, socio-economic and genetic factors
- diagnostic features and differential diagnosis

- recognition of ‘alarm’ or ‘red flag’ features
- appropriate and relevant investigations
- interpretation of test results
- management, including initial and continuing care, chronic disease monitoring and emergency care
- patient and carer information and education
- prognosis.

Symptoms and signs

Many gastrointestinal (GI) conditions are often asymptomatic in their early stages. Symptoms and signs include:

- abdominal masses and swellings, including ascites and organ enlargement such as splenomegaly and hepatomegaly
- abdominal pain, including the differential diagnoses from non-gastrointestinal causes (such as gynaecological, or urological)
- bloating
- bowel issues, including constipation, diarrhoea, changes in habit, tenesmus and faecal incontinence
- chest pain
- cough
- disturbance of smell and taste
- dyspepsia
- dysphagia
- hiccups
- inflammation (for example, in eyes, joints)
- jaundice
- mouth ulceration, erythroplakia, leukoplakia, salivary problems
- nausea and vomiting, including non-gastrointestinal causes
- pruritus
- rectal bleeding, including melaena
- regurgitation
- vomiting, including haematemesis
- unexplained weight loss and anorexia
- weight gain, including obesity.

Common and important conditions

- Dyspepsia and gastro-oesophageal reflux disease (GORD) affect a significant proportion of the population
- Chronic abdominal conditions: inflammatory bowel disease, diverticular disease, coeliac disease and irritable bowel syndrome
- Acute abdominal conditions: appendicitis, acute obstruction and perforation, diverticulitis, Meckel’s diverticulum, ischaemia, volvulus, intussusception, gastric

and duodenal ulcer, pancreatitis, cholecystitis, biliary colic, empyema and renal colic
- Medication effects: analgesics (codeine, non-steroidal anti-inflammatory drugs (NSAIDs), paracetamol), antibiotics (nausea, risk of Clostridium difficile (C. diff)), proton pump inhibitors (potential masking of symptoms)
- Post-operative complications
- Hernias: inguinal, femoral, diaphragmatic, hiatus, incisional

Upper GI conditions

- Gastrointestinal haemorrhage, including oesophageal varices, Mallory–Weiss syndrome, telangiectasia, angiodysplasia, Peutz–Jeghers syndrome
- GORD, non-ulcer dyspepsia, peptic ulcer disease, Helicobacter pylori (H. pylori), hiatus hernia
- Oesophageal conditions, including achalasia, malignancy, benign stricture, Barrett's oesophagus, globus
- Gastrointestinal malignancies including oesophageal, gastric, pancreatic

Lower GI conditions

- Constipation: primary and secondary to other systemic diseases such as hypothyroidism, drug-induced, hypercalcaemia
- Diarrhoea
- Gastrointestinal infection, including:
    - toxins such as C. diff and Escherichia coli (E. coli)
    - bacterial causes such as salmonella, campylobacter, amoebic dysentery
    - viral causes such as rotavirus, norovirus
    - parasitic causes such as Giardia lamblia
- Note: sexually transmitted infections can also cause symptoms
- Gastrointestinal malignancies, including colorectal, carcinoid, lymphoma
- Inflammatory bowel disease such as Crohn's disease, ulcerative colitis
- Malabsorption, including coeliac disease, lactose intolerance, secondary to pancreatic insufficiency (such as chronic pancreatitis, cystic fibrosis, bacterial overgrowth)
- Rectal problems, including anal fissure, haemorrhoids, perianal haematoma, ischiorectal abscesses, fistulae, prolapse, polyps, malignancy

Liver, gallbladder and pancreatic disease

- Liver disease:
    - drug-induced: alcohol
    - medications (paracetamol, antibiotics), chemicals
    - infection: viral hepatitis, leptospirosis, hydatid disease
    - malignancy: primary and metastatic
    - cirrhosis (for example, from alcohol, fatty liver or non-alcoholic fatty liver disease NAFLD))

    - primary biliary cirrhosis, chronic active hepatitis, haemolysis
    - alpha-1 antitrypsin deficiency, haemochromatosis, Wilson's disease
- Secondary effects of liver diseases such as ascites, portal hypertension, hepatic failure
- Gallbladder disease: gallstones, cholecystitis, cholangitis, biliary colic, empyema, malignancy
- Pancreatic disease: acute pancreatitis, chronic pancreatitis, malabsorption, malignancy including islet cell tumours

Nutrition

- Dietary management of disease, inadequate or excessive intake
- Impact of diet on health (such as risk of cancer from high red meat intake) and dietary approaches to healthy living and prevention of disease
- Disorders of weight: obesity and weight loss including non-nutritional causes such as cancer, thyroid disease and other endocrine conditions
- Nutritional problems: vitamin and mineral deficiencies or excess, supplementary nutrition such as dietary, percutaneous endoscopic gastrostomy (PEG) and parenteral feeding
- Complications and management of stomas

Examinations and procedures

The nature of GI symptoms and examinations can be sensitive. It is important to put your patient at ease and providing an environment where abdominal and rectal examinations are performed with dignity and, where appropriate, under chaperoned conditions.

Investigations

- Stool tests, including culture and faecal calprotectin, faecal immunochemical test (FIT)
- Tests of liver function, including interpretation of immunological results and markers of disease including cirrhosis and malignancy, including scoring tools for NAFLD
- Endoscopy, ultrasound, and other scans (e.g., transient elastography), interpretation of relevant tests such as those for Helicobacter pylori infection, coeliac disease
- Secondary care interventions such as laparoscopic surgery, endoscopic retrograde cholangio pancreatography (ERCP), radiological investigations (including contrast and computed tomography (CT) scans)
- Screening programmes for colorectal cancer such as stool tests (FITs), endoscopy and the evidence base

Service issues

- High prevalence of GI symptoms in the community and the implications for primary care
- Importance of assessing major risk factors and encouraging early lifestyle interventions to reduce the risk of liver disease
- Availability and appropriate use of direct-access endoscopy and imaging for primary care practitioners
- Community-based services in areas such as drug and alcohol rehabilitation (both of which are implicated in GI and liver disease)
- Increasing demand for weight-loss surgery, and its potential long-term effects
- Public health implications of the national bowel cancer screening programme and the role of primary care in provision and in dealing with symptoms among screening invitees

Additional important content

- Appropriate tailoring of treatment to cater for the patient's GI function and preferences
- Side effects of common medicines, including analgesics, antibiotics and proton pump inhibitors
- Drug and alcohol misuse: range of associated GI and liver problems, complex issues, ways these impact on digestive disorders and the management problems they are associated with
- Impact of social and cultural diversity, and the important role of health beliefs relating to diet, nutrition and the presentation of gastrointestinal disorders. Ensure that the practice is not biased against recognising these

Case discussion

Beverley Adams is a 62-year-old librarian with a history of osteoarthritis in her knees. She has not been eating or sleeping well, and presents with intermittent constipation, bloating, epigastric discomfort, tiredness and 5kg weight loss in the last six months.

She presented last year with some rectal bleeding, which was attributed to haemorrhoids by another GP. It settled with conservative treatment. She takes an NSAID for her arthritis and has a vegetarian diet.

Her marriage is under strain since her husband lost his job and increased his alcohol consumption. She is stressed at work due to a difficult new supervisor and she would like to retire but cannot be due to their financial situation.

As part of the national screening programme, she has been invited to undertake a second FIT; the first was negative two years ago and she has declined doing another. You do not find anything abnormal on abdominal or rectal examination and you request blood tests, which show mild anaemia.

Questions

These questions are provided to prompt you to consider the key points of the case. They can form the basis for a case discussion with your educational supervisor and will assist you in writing reflective entries in your ePortfolio. The questions are examples to trigger reflection and are not intended to be comprehensive.

Core capabilities	Questions
Fitness to practise This is about professionalism and the actions expected to protect people from harm. This includes the awareness of when an individual's performance, conduct or health, or that of others, might put patients, themselves or their colleagues at risk.	How might my practice be different if I had past experience of a close relative or friend with a similar presentation? How might this influence how I develop a shared management plan with the patient?
An ethical approach This is about practising ethically with integrity and a respect for equality and diversity.	How would I deal with my concerns about Beverley's husband? What ethical principles do I know that might help me with this case? How might my approach be different if the patient was a different sex, had a different culture or religion?
Communicating and consulting This is about communication with patients, the use of recognised consultation techniques, establishing and maintaining patient partnerships, managing challenging consultations, third-party consulting, the use of interpreters and consulting modalities across the range of in-person and remote methods.	How can I acknowledge the wide range of psychosocial issues in the history? What techniques would I use to work flexibly and efficiently within the allotted time? How might I explain my examination findings and the investigations to the patient?

Data gathering and interpretation This is about the gathering, interpretation and use of data for clinical judgement, including information gathered from the history, clinical records, examination and investigations.	What are the differential diagnoses? What investigations might I request? How do I manage the risk of a possible serious illness if the test results were normal? How sensitive and specific are the bowel screening programmes?
Clinical examination and procedural skills This is about clinical examination and procedural skills. By the end of training, the GP registrar must have demonstrated competence in general and systemic examinations of all the clinical curriculum areas, including the five mandatory examinations and a range of skills relevant to general practice.	What is the significance of a normal abdominal and rectal examination? Do I feel reassured by this? What other elements of the history and examination would I wish to explore in this case?
Decision-making and diagnosis This is about having a conscious, organised approach to making diagnosis and decisions that are tailored to the particular circumstances in which they are required.	What is my strategy for investigating this combination of symptoms and factual information (such as weight loss, anaemia, weakness or fatigue, psychological issues)? How much should the patient's priorities influence this? How could I encourage a shared decision-making process?
Clinical management This is about the recognition and a generalist's management of patients' problems.	What are my next steps? When should I refer or investigate with a colonoscopy? What advice would I give regarding her medications?
Medical complexity This is about aspects of care beyond the acute problem, including the management of co-morbidity, uncertainty, risk, and health promotion.	How will I address Beverley's current concerns while being diligent in investigating her for serious illness? How can I involve Beverley in thinking about planning the different strands of her care? What are the possible supportive organisations and potential referral routes in this case?

Team working This is about working effectively with others to ensure good patient care and includes sharing information with colleagues and using the skills of a multiprofessional team	What are the referral guidelines for two-week suspected cancer referrals? What information should be included in any referral letter? Who else in the multidisciplinary team could support Beverley? How can Beverley's care be most effectively coordinated?
Performance, learning and teaching This is about maintaining the performance and effective CPD of oneself and others. The evidence for these activities should be shared in a timely manner within the portfolio.	What can be identified as areas of personal educational need? What sources of information can I identify to ensure I am up to date with the investigation of lower GI symptoms? What areas could be explored further for potential improvement at the practice level?
Organisation, management and leadership This is about understanding how primary care is organised within the NHS, how teams are managed and the development of clinical leadership skills.	How does my practice record and follow up patients who have not attended for the bowel screening programme? What can my practice do to improve the uptake of screening programmes? What is the most appropriate way to record the multiple aspects of this patient's presenting complaint?
Holistic practice, health promotion and safeguarding This is about the ability of the doctor to operate in physical, psychological, socio-economic and cultural dimensions. The doctor is able to take into account the patient's feelings and opinions. The doctor encourages health improvement, self-management, preventative medicine and shared care planning with patients and their carers. The doctor has the skills and knowledge to consider and take appropriate safeguarding actions.	How could Beverley's wider concerns influence her presentation? What other aspects of her social and cultural background would I like to enquire about? How could I support Beverley with self-management?

Community health and environmental sustainability This is about the management of the health and social care of the practice population and local community. It incorporates an understanding of the interconnectedness of health of populations and the planet.	How do people respond to invitations for bowel cancer screening? What influences this? What negative influences or barriers might exist in the community that could exacerbate problems for Beverley and her family? What community services might be available to help Beverley and her family?

How to learn this area of practice

Work-based learning

You should ideally spend time in clinics, in both general and specialised areas – for example, hepatitis management, liver disorder and endoscopy clinics. There is a very broad spectrum of activity in which you could potentially get involved and the opportunities will depend to some extent on what is available locally. You should also take the opportunity to discuss screening programmes with patients in eligible age groups and check their understanding of the screening process and how it relates to symptom-based diagnosis.

Self-directed learning

You will find many case-based discussions within GP speciality training programmes on GI disorders. These cases are often challenging because patients with GI diseases often follow unpredictable diagnostic journeys.

Learning with other healthcare professionals

GP registrars should take the opportunity of discussing GI disorders with practice nurses and nurses in the hospital environment. Some practices have community nurses dealing specifically with stoma care or drug and alcohol problems and it would be helpful to spend time discussing GI disorders in relation to shared care protocols, intravenous drug use and excessive alcohol consumption.

Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- Investigation of rectal bleeding
- Interpretation of liver function tests
- Assessment of abdominal pain

Simulated Consultation Assessment (SCA)

- A man with a raised body mass index (BMI) has a cough that is worse overnight and first thing in the morning
- A young woman complains of recurrent abdominal pain and bloating
- An elderly woman asks for an explanation and advice after a hospital outpatient attendance; the consultant's letter (provided) gives a diagnosis of diverticular disease

Workplace-based Assessment (WPBA)

- Case-based Discussion (CBD) about a man who continues to have upper abdominal pain following a recent cholecystectomy
- Log entry about a referral for a woman with dysphagia through the urgent cancer pathway
- Quality Improvement Project (QIP) looking at how effective your GP practice is at suggesting suitable interventions to patients who may potentially be at risk of liver disease

Genomic medicine

This topic guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you understand important issues relating to genomics in primary care by illustrating the key learning points with a case scenario and questions. It also contains tips and advice for learning, assessment and continuing professional development (CPD), including guidance on the knowledge relevant to this area of general practice.

Each topic guide is intended to illustrate important aspects of everyday general practice, rather than provide a comprehensive overview of each clinical topic. It should therefore be considered in conjunction with other topic guides and educational resources.

The role of the GP in genomic medicine

The term ‘genomic medicine’ encompasses both genetics and genomics. While genetics focuses on the DNA coding for single functional genes, genomics is the study of the entirety of an individual’s DNA. Genomic medicine involves using genomic information about an individual as part of their clinical care (for example, for diagnostic or therapeutic decision-making).

The term 'precision medicine' refers to the use of genomic information alongside other individual and environmental factors to refine disease prediction, prevention and treatment. Genomic information about how an individual’s genes influence their response to drugs (pharmacogenomics) may inform personalised medical management through the stratified use of medicines.

As access to genomic testing increases – either through research programmes, as part of clinical care or by direct-to-consumer testing from commercial companies – patients and their relatives will turn to their GP for discussion and advice, and GPs must be aware of the implications of this.

As a GP your role is to:

- take and consider family histories to identify families with, or at risk of, genetic conditions (including autosomal and X-linked disorders) and familial clusters of common conditions such as cancer, cardiovascular disease and diabetes
- identify patients and families who would benefit from being referred to appropriate specialist services
- manage the day-to-day care of patients with genetic conditions, even if the patient is under specialist care
- coordinate care across services, including transitions from paediatric to adult services
- communicate information about genetics and genomics, including discussing results from antenatal and newborn screening programmes

- understand how genomic information is used within the context of routine clinical practice.

Knowledge and skills guide

For each problem or disease, consider the following areas within the general context of primary care:

- the natural history of the condition, including whether acute or chronic
- the incidence and prevalence, including in different demographic groups
- typical and atypical presentations
- recognition of normal variations throughout life
- risk factors, including lifestyle, socio-economic and genetic factors
- diagnostic features and differential diagnosis
- recognition of 'alarm' or 'red flag' features
- appropriate and relevant investigations
- interpretation of test results
- management, including initial and continuing care, chronic disease monitoring, emergency care and end-of-life care
- patient and carer information and education, including self-care
- prognosis.

Common and important conditions

Variations in the human genome may have no effect, predispose to common diseases or result in genetic conditions. Many of these conditions (for example, cystic fibrosis and Huntington's disease) are individually rare, but as a group share common principles in terms of diagnosis, management and supporting patients and their families. As a GP you should understand the following:

- autosomal dominant conditions (for example, familial hypercholesterolaemia, polycystic kidney disease, Huntington's disease, thrombophilias)
- chromosomal disorders (for example, Down's syndrome, trisomy 18, Turner syndrome, Klinefelte'sr syndrome)
- autosomal recessive conditions (for example, cystic fibrosis, hereditary haemochromatosis, haemoglobinopathies)
- X-linked disorders (for example, Fragile X syndrome, Duchenne muscular dystrophy and Becker muscular dystrophy, haemophilia).

Many common conditions follow a multifactorial inheritance pattern, for example, ischaemic heart disease, hypertension, diabetes, cancer and obesity. Some patients with a common condition demonstrate familial clustering of the condition or have an autosomal dominant condition that confers high risk, for example, BRCA1 pathogenic variant in breast cancer, Lynch syndrome or familial hypercholesterolaemia in ischaemic heart disease.

Symptoms, signs and modes of presentation

Most variations in the genome are asymptomatic. In patients who have, or are at risk of developing, a genetic condition, consider the following:

- clinical suggestion of inherited disease (for example, multiple family members affected at a younger age)
- genetic 'red flags' (for example, recurrent miscarriage, developmental delay in conjunction with other morbidities)
- predisposition to common diseases (such as coronary artery disease or cancer)
- symptoms and signs of specific conditions (see 'Common and important conditions' above)
- symptom complexes and multisystem involvement
- variability of symptoms and signs between family members for some genetic conditions, particularly some autosomal dominant conditions (such as neurofibromatosis type 1), which may be due to variable penetrance, expression or anticipation.

Assessing genetic risk

- How to take a family history (relevant questions, interpretation, how to draw a pedigree)
- Basic inheritance patterns (autosomal dominant and recessive, X-linked, mitochondrial, multifactorial)
- Principles of assessing genetic risk, including:
    - principles of risk estimates for family members of patients with single gene disorders
    - principles of recurrence risks for simple chromosome anomalies (for example, trisomies)
    - contribution of susceptibility variants to risk of common chronic conditions and infectious diseases such as Covid-19
    - use of information about genetic susceptibility to common conditions to aid stratification into risk categories (polygenic risk scoring)
    - conversations around risk in the context of antenatal screening
    - online risk assessment tools, as they become available
- Other factors contributing to genetic risk (for example, ethnicity, effects of consanguinity)

Investigations

- Genetic and genomic tests (diagnostic, predictive, carrier testing) and their limitations
- Diagnostic tests in primary care (for example, cholesterol, ultrasound for polycystic kidney disease, testing for hereditary haemochromatosis)
- Carrier testing for families with autosomal recessive conditions such as sickle cell, thalassaemia or cystic fibrosis

- Antenatal and newborn screening programmes (for example, Down's syndrome, cystic fibrosis, sickle cell and thalassaemia)

Service issues

- Systems for following up patients who have, or are at risk of having, a genetic condition and have chosen to undergo regular surveillance (for example, imaging for breast cancer and adult polycystic kidney disease or endoscopy for colon cancer)
- Eligibility and referral pathways for NHS genetic and genomic testing
- Services and support available for those with an inherited condition (including genetics and genomics medicine services)
- Local and national guidelines (for example, for a family history of certain cancers)

Additional important content

- Genomic nomenclature (for example, what is meant by non-coding DNA, susceptibility variant, pathogenic variant and variant of unknown significance (VUS))
- Difficulties in determining the exact genomic cause of a condition (for example, a learning disability)
- Heterogeneity in genetic diseases
- Skills in communicating genetic and genomic information, taking into account a person's health literacy
- Skills and techniques for non-directive, non-judgmental discussion about genetic conditions, taking into account an individual's ethnic, cultural and religious context and their beliefs
- Spectrum of risk-reducing measures, from lifestyle modification to targeted treatments for certain conditions (for example, mastectomy and/or oophorectomy for BRCA1/2 mutation carriers, colectomy for adenomatous polyposis coli (APC) mutation carriers, aspirin for Lynch syndrome, statins for familial hypercholesterolaemia, venesection for haemochromatosis, losartan for patients with Marfan syndrome), targeted gene therapies
- Reproductive options available to those with a known genetic condition (for example, having no children, adoption, gamete donation, prenatal diagnosis, neonatal screening or testing)
- Emotional, psychological and social impact of a genetic diagnosis on a patient and their family
- Clinical and ethical implications for family members of an affected individual, depending on the mode of inheritance of a condition (autosomal dominant, recessive and X-linked single gene inheritance; de novo and inherited chromosomal anomalies; mitochondrial inheritance and somatic mutation)
- Ethical issues surrounding:
    - confidentiality and non-disclosure of genetic information within families (particularly when information received from or about one individual can

    - be used in a predictive manner for another family member in the same practice)
    - genetic testing (for example, testing in children, presymptomatic testing)
    - the 'right not to know'
    - the use of information (for example, for insurance or employment issues)
- Pharmacogenomics: the role of genomic information in prescribing

Case discussion

Emily Russo, a healthy 37-year-old woman, presents to you with concerns about developing cancer because her mother was diagnosed with breast cancer at the age of 38 and died at the age of 40. Her maternal grandmother had also died from cancer in her late 40s, and her cousin, Lisa Parker, who is 42 years old, has recently been diagnosed with ovarian cancer.

Emily is referred to the local clinical genetics service, where she sees a genetic counsellor who explains that the family pattern could be consistent with one of the family cancer syndromes. The genetic counsellor explains that it would be helpful to find out more information from her cousin. On further discussion with her family, Emily finds that her cousin had a genetic test at the time of her ovarian cancer diagnosis, which showed a BRCA 1 pathogenic variant.

Emily sees the genetics service again to discuss being tested to see if she has also inherited the pathogenic variant. She is considering IVF (in vitro fertilisation) with her female partner and wants to know if the genetic testing may be helpful in informing decisions in this regard.

Questions

These questions are provided to prompt you to consider the key points of the case. They can form the basis for a case discussion with your educational supervisor and will assist you in writing reflective entries in your ePortfolio. The questions are examples to trigger reflection and are not intended to be comprehensive.

Core capabilities	Questions
Fitness to practise This is about professionalism and the actions expected to protect people from harm. This includes the awareness of when an individual's performance, conduct or health, or that of others, might put patients, themselves or their colleagues at risk.	How do my own views influence the way I communicate information about genetic and genomic tests and results, in particular those that may impact on the wider family? What are the limits of my competence in this case?

An ethical approach This is about practising ethically with integrity and a respect for equality and diversity.	What potential ethical dilemmas could such a case present, and how would I address them? What are the ethical implications of consulting with and providing care for family members of an individual in whom a genetic diagnosis has been made? What are my thoughts and feelings about private companies offering genetic tests for the general public?
Communicating and consulting This is about communication with patients, the use of recognised consultation techniques, establishing and maintaining patient partnerships, managing challenging consultations, third-party consulting, the use of interpreters and consulting modalities across the range of in-person and remote methods.	How can I communicate the risks of common patterns of genetic inheritance using simple language? What do I need to consider when communicating information relating to a genetic disorder?
Data gathering and interpretation This is about the gathering, interpretation and use of data for clinical judgement, including information gathered from the history, clinical records, examination and investigations.	What tools are available to GPs for recognising and stratifying patients who may have an inherited predisposition to developing cancers? How can I recognise individuals or families at the greatest risk of having genetic conditions? What clinical information does my local specialist genetics service require prior to referral?
Clinical examination and procedural skills This is about clinical examination and procedural skills. By the end of training, the GP registrar must have demonstrated competence in general and systemic examinations of all the clinical curriculum areas, including the five mandatory examinations and a range of skills relevant to general practice.	Are there any clinical examinations I would wish to perform in this case? Would the findings affect my decision to refer (and to whom)?

Decision-making and diagnosis This is about having a conscious, organised approach to making diagnosis and decisions that are tailored to the particular circumstances in which they are required.	What are the best ways of taking, recording and interpreting a genetic family history? When am I likely to refer patients to secondary care?
Clinical management This is about the recognition and a generalist's management of patients' problems.	If Emily is found not to have inherited the BRCA1 gene, does this mean she will not develop breast or ovarian cancer? What guidelines exist to guide my management of people with genetic conditions? How do I access them? Do I know when and where to seek timely and reliable advice on genetic and genomic issues or queries (for example, about inherited disorders or testing)?
Medical complexity This is about aspects of care beyond the acute problem, including the management of comorbidity, uncertainty, risk and health promotion.	What roles could the GP play in managing complexity in this case? What other sources of advice and support are available to GPs? What is the role of pharmacogenomics in current and future prescribing practice?
Team working This is about working effectively with others to ensure good patient care and includes sharing information with colleagues and using the skills of a multiprofessional team.	How can GPs work with local genetics departments to facilitate a seamless two-way transfer of information? How can the practice work as a team to ensure that patients with an identified predisposition to cancer or other genetic conditions are not lost to follow-up?
Performance, learning, and teaching This is about maintaining the performance and effective CPD of oneself and others. The evidence for these activities should be shared in a timely manner within the portfolio.	How can I ensure that information for my patients about the availability of genetic or genomic tests and targeted management is up to date? How do I keep myself updated about new developments in genetics, genomics and testing?

Organisation, management and leadership This is about understanding how primary care is organised within the NHS, how teams are managed and the development of clinical leadership skills.	What codes within my electronic medical record system can I use to record a family history of cancers or any other genetic disorder? What systems are in place to record that someone has had a genomic test? What systems are in place to follow up patients who have, or are at risk of, a genetic disorder and have chosen to undergo regular surveillance?
Holistic practice, health promotion and safeguarding This is about the ability of the doctor to operate in physical, psychological, socio-economic and cultural dimensions. The doctor is able to take into account the patient's feelings and opinions. The doctor encourages health improvement, self-management, preventative medicine and shared care planning with patients and their carers. The doctor has the skills and knowledge to consider and take appropriate safeguarding actions.	How might a patient's cultural and religious background, and beliefs concerning genetics, genomics and inheritance, impact on the consultation? What range of feelings might a person have after finding out they have, or have not, inherited a predisposition to a condition? What population screening programmes should Emily continue to participate in?
Community health and environmental sustainability This is about the management of the health and social care of the practice population and local community. It incorporates an understanding of the interconnectedness of health of populations and the planet.	How would the views of the local community towards genetics, genomics and screening impact on the ways in which the family are likely to take up services? How might the make-up of the local population affect the prevalence of genetic conditions and attitudes towards genetic disease? Where are my local genetic or genomic departments and are there any agreed local protocols for referrals?

How to learn this area of practice

Work-based learning

Primary care is a good setting to learn about genomic medicine because of the family-based focus and opportunities for staged counselling. Learning opportunities include how to recognise conditions with a genetic component; how to appropriately manage genetic implications for the individual and family, particularly where there are ethical, social and legal issues; and when and how to refer patients to specialist services. As many common conditions seen in general practice (including cancer, diabetes and heart disease) are multifactorial with a genetic component, managing them can also help develop awareness of how genomics affects disease.

Many hospital specialties, such as fetal medicine, paediatrics and some adult medical and surgical specialties, will be requesting genomic tests. As a GP registrar, you can build your knowledge and awareness of genomic issues through observation and practice in these settings.

You may wish to shadow allied health professionals who have a role in genomic medicine. This might include, for example, pharmacists managing lipid optimisation (identifying those who may have familial hypercholesterolaemia) and pharmacogenomics in other specialties, such as targeted therapies in oncology, and family history breast care nurses in surgery.

GP registrars with an interest in genomic medicine may also wish to take the opportunity to learn from consultant geneticists, genetic counsellors and other relevant allied staff such as genomic associates and family history administrators working in regional specialist genetics or genomics services. Learning may include developing your understanding of the genetic counselling process, diagnosis and management of genetic conditions, and reproductive options, including prenatal diagnosis for at-risk couples.

Self-directed learning

The RCGP Genomics toolkit has a collection of resources, including training materials, audit suggestions and links to relevant clinical guidance and patient information.

The NHS England Genomics Education Programme website includes information about taking and drawing a family history, core concepts in genomics, genetic conditions and genomic terminology.

The **British Society for Genetic Medicine website** contains links to regional genetic centres, which often have information on referral pathways and criteria.

You can find an e-Learning module(s) relevant to this topic guide at **elearning for healthcare**.

Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- Knowledge of antenatal and newborn screening programmes
- Consent, capacity and confidentiality of genetic testing
- Interpretation of a pedigree analysis chart

Simulated Consultation Assessment (SCA)

- A woman with one affected sibling requests genetic screening for breast cancer
- A woman attends for preconceptual advice because her nephew has Duchenne muscular dystrophy
- A neurology letter (provided) states 'symptoms suggest cerebellar ataxia, with autosomal recessive inheritance'. The patient attends to discuss the implications of her own probable diagnosis for her children

Workplace-based Assessment (WPBA)

- Audio Consultation Observation Tool (Audio COT) with a parent discussing the chances of passing his thalassemia-associated variant (trait) to his children
- Log entry about communicating with an adult patient who has Down's syndrome
- Log entry about a mother who is finding it hard to cope with her child having cystic fibrosis

Gynaecology and breast health

About this topic guide

This topic guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you understand important issues relating to gynaecology and breast health by illustrating the key learning points with a case scenario and questions. It also contains tips and advice for learning, assessment and continuing professional development (CPD), including guidance on the knowledge relevant to this area of general practice.

Each topic guide is intended to illustrate important aspects of everyday general practice, rather than provide a comprehensive overview of each clinical topic. It should therefore be considered in conjunction with other topic guides and educational resources.

The role of the GP in gynaecology and breast health

As a GP, your role is to:

- understand the impact of gynaecological problems on a woman's life and that some women will find these issues difficult to discuss
- opportunistically promote women's health, such as breast and cervical screening, and during pregnancy
- manage gynaecological problems in primary care
- be aware of presentations and issues relating to women's cancers
- be alert to safeguarding issues in relation to women's health, including female genital mutilation (FGM)
- be aware that men may also experience breast disorders.

Knowledge and skills guide

For each problem or disease, consider the following areas within the general context of primary care:

- the natural history of the condition, including whether acute or chronic
- the incidence and prevalence, including in different demographic groups
- typical and atypical presentations
- recognition of normal variations throughout life
- risk factors, including lifestyle, socio-economic and genetic factors
- diagnostic features and differential diagnosis
- recognition of 'alarm' or 'red flag' features
- appropriate and relevant investigations
- interpretation of test results
- management, including initial and continuing care, chronic disease monitoring and emergency care

- patient and carer information and education, including self-care
- prognosis.

Symptoms and signs

Breast

- Breast development and abnormalities of development
- Breast lumps (men and women)
- Breast skin changes
- Gynaecomastia
- Mastalgia
- Nipple changes

Pelvic

- Bleeding symptoms:
    - menstrual bleeding problems such as amenorrhoea, menorrhagia, oligomenorrhoea and polymenorrhoea
    - non-menstrual vaginal bleeding including intermenstrual and post-coital bleeding
    - postmenopausal bleeding
- Other pelvic symptoms and signs:
    - continence problems (urinary and faecal)
    - pelvic and abdominal masses
    - pelvic and abdominal pain
    - vaginal discharge and vaginal dryness
    - vaginal swellings and prolapse symptoms
    - vulval pain, lump, irritation, ulceration, pigmentation, leucoplakia and other vulval skin lesions

Other

- Menopause and perimenopause physical and psychological symptoms including, but not limited to, bleeding disturbances, hot flushes, night sweats, psychological symptoms and urogenital symptoms
- Non-specific symptoms that could be consistent with ovarian cancer such as abdominal distension, ascites, bloating, early satiety, new onset irritable bowel syndrome symptoms in women over 50, urinary symptoms, weight loss

(Urinary symptoms such as dysuria and haematuria are covered in the *Renal and urology* topic guide. Sexual health symptoms are covered in the *Sexual health* topic guide. Symptoms relating to pregnancy and reproductive health are covered in the *Maternity and reproductive health* topic guide.)

Common and important conditions

Breast

- Benign breast conditions including eczema, infection (mastitis, breast abscess), lumps (cysts, fibroadenoma) and mastalgia
- Breastfeeding, including common problems
- Malignant breast conditions, including carcinoma in situ, invasive ductal and lobular carcinomas, Paget's disease of the nipple and secondary malignancy such as lymphoma, including awareness of treatment (surgery, radiotherapy, hormonal) and its complications
- Surgery (including potential complications) for breast reconstruction, breast enlargement or implants and breast reduction

Pelvic

- Bleeding problems (which may have a pelvic or extra-pelvic cause):
    - amenorrhoea (primary and secondary), oligomenorrhoea, polymenorrhoea, irregular menstrual cycles and anovulatory cycles
    - medication-induced bleeding problems (including secondary to hormonal contraceptives)
    - menstrual problems, including menorrhagia, dysmenorrhoea (primary and secondary), dysfunctional uterine bleeding
    - intermenstrual bleeding
    - post-coital bleeding
    - postmenopausal bleeding
- Pelvic pain
- Ovarian:
    - benign ovarian swellings, including ovarian cysts and dermoid cysts
    - ovarian cancer, including adenocarcinoma and teratoma
    - polycystic ovary syndrome: gynaecological aspects and associated metabolic disorders such as insulin resistance and obesity, and symptoms such as acne and hirsutism
- Uterine:
    - endometrial polyps, hyperplasia and cancer
    - endometriosis and adenomyosis
    - fibroids
    - prolapse, including cystocele and rectocele
- Cervical:
    - cancer, cervical intraepithelial neoplasia (CIN), dysplasia, ectropion and polyps
- Vulvo-vaginal:
    - FGM, including legal aspects and cosmetic genital surgery
    - malignancy, including vulval intraepithelial neoplasia (VIN) and melanoma
    - skin disorders such as lichen sclerosus, psoriasis, intertrigo, pigmented lesions and genital warts

    - vaginal discharge, including infectious causes such as candida, bacterial vaginosis and sexually transmitted infections (STIs). These are also covered in the *Sexual health* topic guide
    - vulval pain with causes such as atrophic changes, Bartholin's problems, dysesthesia and vulvodynia
- (Urinary conditions, including incontinence, are covered in the *Renal and urology* topic guide)

Fertility

- Infertility and subfertility – causes and investigations:
    - male factors, including impaired sperm production and delivery (such as drug-induced, cystic fibrosis)
    - female factors, including ovulatory disorders, tubal disorders, uterine disorders and genetic causes
- Principles of assisted conception with knowledge of associated investigations
- Recurrent miscarriage

Other

- Premenstrual disorders, including premenstrual syndrome and premenstrual dysphoric disorder
- Menopause:
    - menopause and perimenopause, including premature ovarian insufficiency
    - systemic symptoms such as skin changes, hot flushes and psychological symptoms
    - treatment options, including hormone replacement therapy (HRT) and alternatives to HRT; role of testosterone therapy
    - urogenital aspects including atrophic vaginitis
    - wider health issues associated with menopause, including increased cardiovascular risk, mental health symptoms and osteoporosis

(STIs, pelvic inflammatory disease (PID), dyspareunia and pregnancy (including miscarriage and ectopic pregnancy) are covered in the *Sexual health* and *Maternity and reproductive health* topic guides. Urinary problems are covered in the *Renal and urology* guide.)

Examinations and procedures

- Abdominal assessment for ascites, distension and masses
- Bimanual pelvic examination
- Breast examination
- Obtaining informed consent for breast examination, vaginal examination and speculum examination, including use of chaperones where appropriate
- Speculum examination, including appropriate choice of size
- Vaginal and endocervical swabs

- Vulval examination

Investigations

- Blood tests, including CA125, full blood count and hormone profiles (including for investigation of subfertility)
- Cervical cytology tests
- Vaginal and cervical swabs
- Semen analysis
- Ultrasound – abdominal and pelvic ultrasound, including transvaginal scans.
- Breast imaging, including mammography, magnetic resonance imaging (MRI) and ultrasound
- Common secondary care gynaecological investigations, including colposcopy, hysteroscopy and laparoscopy

Service issues

- Emotional and organisational support structures and techniques to deal with the psychosocial aspects of women's health (for example, in relation to pelvic pain, menopause, and breast and gynaecological cancers)
- Human papillomavirus (HPV) vaccination programme
- Local service provision and pathways for suspected malignancy, including one-stop clinics
- Practical and legal aspects around FGM, including reporting mechanisms, safeguarding concerns and protecting girls at risk of FGM
- Safeguarding issues that may present through gynaecological concerns

Other important content

- Aftercare of women who have had gynaecological or breast surgery and radiotherapy, including long-term effects of treatment and risk of cancer recurrence
- Gynaecological issues in transgender patients. Transgender issues are covered more fully in the *Sexual health* and *Equality, diversity and inclusion* topic guides
- The physiological and hormonal changes of the menstrual cycle
- Genetic mutations related to breast and gynaecological malignancy, including BRCA, and indications for referral for genetic counselling
- Screening programmes for cervical and breast cancer, including practicalities, benefits, risks, interpretation of results, non-participation and strategies to promote uptake
- Provision of these screening programmes to the transgender population

Case discussion

Jackie Johnson is a 48-year-old woman who comes to see you about some irregular vaginal bleeding. She attends with her four-year-old granddaughter Kylie, who she is caring for because Kylie's mother is currently in prison for drug-related offences. Jackie admits she has not paid much attention to her own health lately owing to her chaotic family situation. She has been too busy caring for Kylie and visiting her daughter in prison to attend the GP surgery any earlier.

She reports having some pink-coloured vaginal discharge for around six months before more recently developing irregular vaginal bleeding, which is becoming more frequent. She has not had a cervical screening test for over 15 years and on examination you find an irregular, ulcerated area on the cervix. You explain your findings and agree with her that you will refer her to gynaecology on a suspected cancer pathway.

Jackie is diagnosed with a stage 1b cervical squamous carcinoma. She has a hysterectomy and subsequent chemoradiotherapy. At a subsequent GP review Jackie describes how the hospital admission, post-operative recovery period and subsequent daily outpatient visits for radiotherapy make it even more difficult for her to look after her granddaughter. Jackie is not keen on any further help at home as she fears social services will take her granddaughter away, but she agrees that you could ask the health visitors to see what support they can offer.

Questions

These questions are provided to prompt you to consider the key points of the case. They can form the basis for a case-based discussion with your educational supervisor and will assist you in writing reflective entries in your ePortfolio. The questions are examples to trigger reflection and are not intended to be comprehensive.

Core capabilities	Questions
Fitness to practise This is about professionalism and the actions expected to protect people from harm. This includes the awareness of when an individual's performance, conduct or health, or that of others, might put patients, themselves or their colleagues at risk.	How do I feel when a patient's neglect of their own health may have contributed to a condition? For example, in this case Jackie is a smoker and has not attended for cervical screening?
An ethical approach This is about practising ethically with integrity and a respect for equality and diversity.	What ethical dilemmas does this case present? What tensions do I see between the scientific, political and patient-centred aspects of cervical screening?

	What safeguarding concerns are raised by this scenario?
Communicating and consulting This is about communication with patients, the use of recognised consultation techniques, establishing and maintaining patient partnerships, managing challenging consultations, third-party consulting, the use of interpreters and consulting modalities across the range of in-person and remote methods.	How would I negotiate with a patient who is reluctant to accept help I feel is needed from social services or other agencies? How good am I at explaining the risks and benefits of a screening test to my patients? What about explaining the results of abnormal smear tests to a patient? What communication strategies can I employ when 'breaking bad news' in a situation such as this?
Data gathering and interpretation This is about the gathering, interpretation and use of data for clinical judgement, including information gathered from the history, clinical records, examination and investigations.	What are the risk factors in Jackie's history that might suggest a diagnosis of malignancy? What factors (for example, patient, doctor, clinical findings, guidelines) would influence which further investigations to perform and the urgency of these investigations in a woman presenting with vaginal bleeding?
Clinical examination and procedural skills This is about clinical examination and procedural skills. By the end of training, the GP registrar must have demonstrated competence in general and systemic examinations of all the clinical curriculum areas, including the five mandatory examinations and a range of skills relevant to general practice.	How confident am I in carrying out a speculum examination and a smear test, and being able to differentiate between a healthy cervix, common minor changes or serious pathologies? What other examinations and procedures could I consider performing in general practice?
Decision-making and diagnosis This is about having a conscious, organised approach to making diagnosis and decisions that are tailored to the particular circumstances in which they are required.	If Jackie's cervix had been normal, what would have been my next step? How do I make decisions about whether a child is safe? Who could I speak to for further advice?

Clinical management This is about the recognition and a generalist's management of patients' problems.	Do I know the 'red flag' symptoms that require urgent referral for suspected gynaecological cancer? Abnormal cervical cytology and cervical cancer are often related to sexually transmitted HPV– how do I explore the risk of other STIs, including human immunodeficiency virus (HIV), in this case?
Medical complexity This is about aspects of care beyond the acute problem, including the management of comorbidity, uncertainty, risk and health promotion.	When supporting a patient with a serious illness how do I appropriately introduce ongoing health promotion and advice? What steps would I take to understand the impact of this illness on the patient's family?
Team working This is about working effectively with others to ensure good patient care and includes sharing information with colleagues and using the skills of a multiprofessional team.	What are the local arrangements for administering the HPV vaccine? What systems are in place to identify vulnerable families in the practice where I work? Do I have a good awareness of other agencies that might be helpful in this case? How might we be able to support Jackie as she cares for her granddaughter?
Performance, learning and teaching This is about maintaining the performance and effective CPD of oneself and others. The evidence for these activities should be shared in a timely manner within the portfolio.	What is my plan for maintaining and updating my knowledge base in women's health? How do I ensure that my cervical smear taking skills are adequate?
Organisation, management and leadership This is about understanding how primary care is organised within the NHS, how teams are managed and the development of clinical leadership skills.	What is the protocol in my practice for calling, recalling and following up patients who attend and do not attend (DNA) for smears? How does the practice record the family relationships? What are the potential safeguarding issues related to record-keeping in this family?

Holistic practice, health promotion and safeguarding This is about the ability of the doctor to operate in physical, psychological, socio-economic and cultural dimensions. The doctor is able to take into account the patient's feelings and opinions. The doctor encourages health improvement, self-management, preventative medicine and shared care planning with patients and their carers. The doctor has the skills and knowledge to consider and take appropriate safeguarding actions.	As the GP for more than one generation of a family, how do I balance their health and social care needs? In patients who are diagnosed with cancer, how do I acknowledge their fears and concerns in the consultation? How could we increase cervical smear uptake? What are the barriers to increased uptake?
Community health and environmental sustainability This is about the management of the health and social care of the practice population and local community. It incorporates an understanding of the interconnectedness of health of populations and the planet.	What relevant social care assistance and support groups are available to patients in my area? How do we deliver primary care services to 'chaotic' and marginalised groups in society? How does the 'inverse care law' apply?

How to learn this area of practice

Work-based learning

GP registrars should take the opportunity to attend outpatient clinics in specialties directly relevant to this area of health, such as general and emergency gynaecology clinics, one-stop clinics for suspected cancer, and breast clinics and community gynaecology clinics.

Self-directed learning

There are many online and clinical courses for GP registrars on breast and gynaecological health issues to supplement their local programmes and to ensure that those GP registrars who have not passed through a hospital-based placement in breast surgery or gynaecology are made aware of current management of these problems. You can find eLearning module(s) relevant to this topic guide at eLearning for healthcare and on the RCGP eLearning website.

The RCGP Women's Health Library is a collection of educational resources and guidelines relevant to GPs and developed in collaboration with the Royal College of

Obstetricians and Gynaecologists (RCOG) and Faculty of Sexual and Reproductive Healthcare (FSRH). The RCGP also offers a women's health toolkit.

The RCOG offers the DRCOG diploma examination particularly aimed at GPs. Details are on its website. Other organisations providing useful online resources in this area include the Primary Care Women's Health Forum, the British Menopause Society and Menopause Matters.

Learning with other healthcare professionals

Gynaecological and breast health problems, by their nature, are often exemplars of teamwork across agencies. Joint sessions with nursing colleagues provide you with multidisciplinary opportunities for learning about the wider aspects of these areas of healthcare provision, in both primary and secondary care. You should also find it fruitful to consider and discuss the roles of the various individuals who represent the many professional and non-professional groups involved in these areas of healthcare.

Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- Symptom management through reproductive stages, for example, menopause, fertility and menstrual issues
- Recognition of red flag breast and gynaecological symptoms
- Differential diagnosis of pelvic pain

Simulated Consultation Assessment (SCA)

- A woman has a breast lump (silicone model provided for the examination)
- A woman from Somalia with a history of FGM has concerns about family pressure to submit her daughter to the same
- Phone call: a young woman wants to discuss her cervical smear result, which shows borderline dyskaryosis (HPV negative)

Workplace-based Assessment (WPBA)

- Observation of a pelvic examination for a woman with unexplained vaginal bleeding
- Consultation Observation Tool (COT) on an 80-year-old patient who ends the consultation saying she is bleeding
- Case-based Discussion (CbD) about a private gynaecologist's request that you prescribe high-dose oestrogen preparations when you disagree with the consultant's diagnosis and management plan

- Statutory clinical observation and procedural skills (CEPS) assessment of female genital examination

Haematology

About this topic guide

This topic guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you understand important issues relating to haematology by illustrating the key learning points with a case scenario and questions. It also contains tips and advice for learning, assessment and continuing professional development (CPD), including guidance on the knowledge relevant to this area of general practice.

Each topic guide is intended to illustrate important aspects of everyday general practice, rather than provide a comprehensive overview of each clinical topic. It should therefore be considered in conjunction with other topic guides and educational resources.

The role of the GP in the care of people with haematological disorders

Many consultations in general practice involve haematological investigations. As a GP you should be able to:

- diagnose and manage haematological disorders, using history, examination, investigation, monitoring and referral where appropriate
- communicate effectively and consider symptoms that are within the range of normal or self-limiting illness and differentiate them from underlying pathology such as anaemia
- intervene urgently when patients present with emergencies related to haematological disorders
- coordinate care and collaborate with other organisations and members of the multidisciplinary team (MDT), leading to effective and appropriate acute and chronic management
- offer advice and support to patients, relatives and carers regarding prevention, prescribing, monitoring and self-management (for example, lifestyle interventions including diet, alcohol and drugs)
- know the epidemiology of common disorders and understand how to recognise them.

Knowledge and skills guide

For each problem or disease, consider the following areas within the general context of primary care:

- the natural history of the condition, including whether acute or chronic
- the incidence and prevalence, including in different demographic groups
- typical and atypical presentations

- recognition of normal variations throughout life
- risk factors, including lifestyle, socio-economic and genetic factors
- diagnostic features and differential diagnosis
- recognition of ‘alarm’ or ‘red flag’ features
- appropriate and relevant investigations
- interpretation of test results
- management, including initial and continuing care, chronic disease monitoring and emergency care
- patient and carer information and education, including self-care
- prognosis.

Symptoms and signs of haematological disorders

- ‘B’ symptoms of lymphoma
- Bleeding, bruising, petechiae and purpura
- Bone pain or pathological fractures
- Deep vein thrombosis (DVT) or pulmonary embolism (PE)
- Fatigue
- Hyperviscosity symptoms (headache, visual loss, acute thrombosis)
- Jaundice secondary to haemolysis
- Lymphadenopathy, splenomegaly and hepatomegaly
- Pallor and anaemia
- Recurrent infection
- Recurrent miscarriage
- Skin manifestations of haematological disease (such as mycosis fungoides)
- Systemic manifestations of haematological disease (for example, sickle cell crisis)
- Weight loss

Common and important conditions

- Anaemia and its causes, including iron, folate and vitamin B12 deficiency, sideroblastic, haemolytic, chronic disease
- Anticoagulants: indications, initiation, management and reversal or withdrawal, including heparin, warfarin, direct oral anticoagulants such as dabigatran, drug interactions and contraindications
- Clotting disorders, including genetic causes such as haemophilia and Von Willebrand disease, infective causes such as meningococcal septicaemia and disseminated intravascular coagulation
- Common abnormalities of blood films and their management (for example, macrocytosis, microcytosis, spherocytosis, neutrophilia, lymphopenia, eosinophilia)
- Enlarged lymph nodes of any cause +/- splenomegaly, including infection and malignancy (both primary and secondary), management of a single enlarged lymph node
- Enzyme diseases such as glucose-6-phosphate dehydrogenase (G6PD) deficiency

- Gout associated with haematological malignancies and myelodysplasias
- Haematological malignancies such as acute and chronic leukaemias, lymphomas (including Hodgkin and non-Hodgkin lymphomas, gut and skin lymphomas), multiple myeloma
- Haemochromatosis
- Haemoglobinopathies such as thalassaemia, sickle cell disease
- Haemolytic diseases, including management of rhesus negative women in pregnancy, autoimmune and transfusion haemolysis
- Lymphatic disorders such as primary lymphoedema
- Myelodysplasia and aplastic anaemia
- Myeloproliferative disorders such as polycythaemia rubra vera, thrombocytosis
- Neutropenia: primary and secondary, including chemotherapy and drug-induced
- Pancytopenia and its causes
- Polycythaemia: primary and secondary such as hypoxia, malignancy
- Purpura: recognition and causes such as drug-induced, Henoch-Schönlein
- Splenectomy including functional asplenia
- Thrombocytosis and thrombocytopaenia, including causes and associations, indications for referral

Examinations and procedures

- Appropriately obtaining blood samples and requesting clearly selected and targeted tests with informed consent
- Use of near-patient testing for anticoagulation

Investigations

- Blood grouping such as ABO and rhesus status, including antenatal blood disorders
- Normal haematological parameters and interpretation of laboratory investigations such as full blood count, haematinics, monitoring of anticoagulants and investigation of coagulation disorders, including thrombophilia and excessive bleeding, protein electrophoreses, immunoglobulins
- Other relevant primary care investigations (for example, X-rays, ultrasound scans, paraprotein urine testing in myeloma)
- Relevant secondary care investigations such as bone marrow biopsy or aspirate, bone scans
- Antenatal screening for inherited haematological disorders (for example, thalassaemia, sickle cell).

Service issues

- Common investigations and treatment pathways in secondary care and referral criteria for common or important conditions

- Cancer care reviews and follow-up, including safe prescribing, management of multimorbidity and recognising signs of disease progression
- Indications for urgent referral to secondary care
- Pathology in other systems leading to haematological manifestations
- Certain services are highly specialised and regionally based, such as bone marrow transplant
- Appropriate understanding and use of shared care protocols linking primary and secondary care management

Additional important content

- Conditions with higher prevalence in certain ethnic groups (such as benign ethnic neutropenia, sickle cell anaemia, thalassaemia traits)
- Ethical issues related to blood transfusion
- Psychosocial impact of living with a haematological condition
- Major side effects of common treatments such as chemotherapy

Case discussion

Simon Chan, a 79-year-old man, presents with joint pains suggestive of osteoarthritis (OA), low mood and tiredness. His symptoms have been present for the preceding six months and appear stable. He complains of a poor sleep pattern and loss of appetite that appear to be depressive in nature. He lives at home with his wife and is otherwise in good health and active.

As part of routine investigations, his full blood count (FBC) has been reported as showing a raised lymphocyte count and flow cytometry suggestive of B-cell chronic lymphocytic leukaemia (CLL).

Referral to haematology was advised and a diagnosis of stage 0 CLL confirmed. No active intervention was recommended other than regular monitoring of Simon's white cell count.

Questions

These questions are provided to prompt you to consider the key points of the case. They can form the basis for a case-based discussion with your educational supervisor and will assist you in writing reflective entries in your ePortfolio. The questions are examples to trigger reflection and are not intended to be comprehensive.

Core capabilities	Questions
Fitness to practise This is about professionalism and the actions expected to protect people from harm. This includes the awareness of when an individual's performance, conduct or health, or that of others, might put patients, themselves or their colleagues at risk.	What are the personal challenges I face in caring for chronic disease in older adults? How do my personal beliefs and attitudes influence the care that I provide? How do I balance my desire to give long-term personalised care with the risk of fatigue and burnout?
An ethical approach This is about practising ethically with integrity and a respect for equality and diversity.	What factors influence the decision for active intervention in asymptomatic illness? How can I respect the autonomy of my patient in a scenario where decisions are based on technical clinical criteria? How do I ensure that timely access to care is equal to all?
Communicating and consulting This is about communication with patients, the use of recognised consultation techniques, establishing and maintaining patient partnerships, managing challenging consultations, third-party consulting, the use of interpreters and consulting modalities across the range of in-person and remote methods.	What are the challenges explaining a diagnosis of disease in the absence of directly attributable symptoms? How do I respond to the inherent uncertainties in future management?
Data gathering and interpretation This is about the gathering, interpretation and use of data for clinical judgement, including information gathered from the history, clinical records, examination and investigations.	How will I monitor this patient in the medium and long term? What information would require a change in current management? How do I balance the need for regular monitoring against over-investigation?

Clinical examination and procedural skills This is about clinical examination and procedural skills. By the end of training, the GP registrar must have demonstrated competence in general and systemic examinations of all the clinical curriculum areas, including the five mandatory examinations and a range of skills relevant to general practice.	What might I have found on examination in this case? Without the blood test results, what might have been the differential diagnosis in this case? What clinical signs are the most sensitive and specific for haematological malignancy in primary care?
Decision-making and diagnosis This is about having a conscious, organised approach to making diagnosis and decisions that are tailored to the particular circumstances in which they are required.	How can I incorporate shared decision-making in my management? What options are available to me if I am unsure what to do?
Clinical management This is about the recognition and a generalist's management of patients' problems.	What clinical symptoms and signs would be considered 'red flags'? What treatment options might be considered? How do I assess the need for or urgency of referral?
Medical complexity This is about aspects of care beyond the acute problem, including the management of comorbidity, uncertainty, risk and health promotion.	How does the diagnosis of CLL affect the assessment, diagnosis and clinical management of other potential comorbidities? What are the likely psychological and social consequences of the diagnosis of a long-term but as yet 'untreated' and currently stable disease? What are the most relevant uncertainties and risks?
Team working This is about working effectively with others to ensure good patient care and includes sharing information with colleagues and using the skills of a multiprofessional team.	How will I coordinate ongoing care with the specialist MDTs? What factors might enhance or hinder the continuity of care? What are the best ways of communicating with very specialised teams such as haemato-oncology?

Performance, learning and teaching This is about maintaining the performance and effective CPD of oneself and others. The evidence for these activities should be shared in a timely manner within the portfolio.	What do I know about the management of haematological malignancies? What are my personal educational needs that this scenario identifies? In what ways can I assess and improve the care of patients with indolent disease?
Organisation, management and leadership This is about understanding how primary care is organised within the NHS, how teams are managed and the development of clinical leadership skills.	What shared care arrangements would I expect to be in place for this patient? How do I arrange ongoing monitoring at appropriate intervals? What support does the practice need to provide?
Holistic practice, health promotion and safeguarding This is about the ability of the doctor to operate in physical, psychological, socio-economic and cultural dimensions. The doctor is able to take into account the patient's feelings and opinions. The doctor encourages health improvement, self-management, preventative medicine and shared care planning with patients and their carers. The doctor has the skills and knowledge to consider and take appropriate safeguarding actions.	How do I differentiate and balance the physical and psychosocial symptoms of patients with chronic stable illness? How do I balance health anxiety with actual health risk? What other aspects of health promotion need to be addressed?
Community health and environmental sustainability This is about the management of the health and social care of the practice population and local community. It incorporates an understanding of the interconnectedness of health of populations and the planet.	How common is this type of illness in my practice population? What support needs to be identified in my locality? What voluntary organisation might be able to offer support and resources?

How to learn this area of practice

Work-based learning

Patients will present with various symptoms, at varying stages in the natural history of their illness. Discussion with a trainer will aid GP registrars in developing strategies to help in problem-solving. Supervised practice will also give GP registrars confidence.
In particular, the GP registrar should be able to gain experience in the management of abnormal haematological findings as they present (incidental, acute and chronic), including emergencies. General practice is also the best place to learn about holistic chronic disease management (such as anticoagulation, anaemias, indolent malignancies, sickle cell disease and haemophilia).

Most GP training programmes have placements of varying lengths in general medicine, and some placements specifically in haematology. The acute setting is the place for you to learn about the immediate management of life-threatening presentations. As a GP registrar you will also learn about the interpretation of haematology lab results, and how to differentiate between significant abnormal findings and those of a coincidental nature, and appropriate secondary care investigations such as bone marrow aspirate and trephine. Outpatient or clinic settings are ideal places for seeing concentrated groups of patients with haematological problems.
Your GP specialty training programme should offer you the opportunity to attend haematology clinics when working in other hospital posts, and you should also consider attending specialist clinics during your general practice-based placements.

Self-directed learning

There is a growing body of eLearning to help you consolidate and build on the knowledge you have gained in the workplace. You can find an eLearning module(s) relevant to this topic guide at elearning for healthcare.

Learning with other healthcare professionals

Chronic disease management in primary care is a multidisciplinary activity. As a GP registrar it is important for you to gain an understanding of the follow-up of patients with haematological disorders even when the clinical lead is taken by secondary care or a community clinical nurse specialist. It is also important to understand the role of medical scientists and when it is appropriate to access their expertise in evaluating laboratory results.

Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- Appropriate use of different anticoagulant therapies
- Interpretation of haematinic results
- Investigation of venous thromboembolism (VTE)

Simulated Consultation Assessment (SCA)

- A woman was investigated for tiredness and lethargy and has macrocytic anaemia and hypercholesterolaemia
- A child has developed purpuric rash on her legs (photo supplied) and had three days of mild abdominal and joint pains
- A teenager has had a persistent and worsening sore throat for five days and now has abdominal pain and lymphadenopathy

Workplace-based Assessment (WPBA)

- Case-based Discussion (CbD) on the management of a patient with persistent thrombocytopenia who is otherwise well
- Audit of the practice data on the appropriateness and value of requests for 'routine' haematology laboratory tests
- Learning log about the care of an elderly man who lives alone and has just been diagnosed with chronic lymphocytic leukaemia
- Clinical examination and procedural skills (CEPS) based on a patient with widespread lymphadenopathy

Infectious diseases and travel health

About this topic guide

This topic guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you understand important issues relating to infectious diseases and travel health by illustrating the key learning points with a case scenario and questions. It also contains tips and advice for learning, assessment and continuing professional development (CPD), including guidance on the knowledge relevant to this area of general practice.

Each topic guide is intended to illustrate important aspects of everyday general practice, rather than provide a comprehensive overview of each clinical topic. It should therefore be considered in conjunction with other topic guides and educational resources.

The role of the GP in travel health and the care of people with infectious diseases

As a GP your role is to:

- diagnose and manage diseases of infectious origin commonly seen in UK general practice and in the prospective or returning traveler
- recognise and appropriately refer rare but serious infectious diseases
- take a thorough social history, including country of birth and travel history, and know how this may affect differential diagnoses
- encourage self-management of benign self-limiting illnesses
- identify, assess, manage and communicate major risks, including risks associated with common or serious infectious diseases, travel, therapies and immunisation
- understand and implement the principles of infection control
- take action to reduce antimicrobial resistance
- know where to find appropriate travel health information
- recognise and manage medical emergencies (including life-threatening conditions such as sepsis) in patients with acute or chronic infectious diseases
- contribute to pandemic preparedness and response.

Background and emerging issues in travel health and infectious diseases

As demonstrated by Covid-19, infectious diseases can spread globally faster than ever before. This is due to several factors, such as environmental change and the increased mobility of people and goods. GPs therefore need to understand a wide spectrum of infectious diseases and the altered contexts in which they may present. GPs also need to be alert to novel symptoms and signs that do not fit with known diseases.

As a GP you may not be contractually obliged to provide certain pre-travel health services, or they may be delivered by other team members (such as practice nurses). Nonetheless, you should still understand general principles, know where to find relevant information and be able to signpost or refer patients appropriately. Conversely, you are likely to be the first port of call for a returning traveler, therefore you should be competent in diagnosing and managing common and important conditions related to travel and infectious disease. You should know what your statutory and contractual responsibilities are in terms of providing care.

You should be aware of advances in diagnosing and monitoring infectious disease, such as genome sequencing of pathogens in outbreak detection (for example, salmonella, coronavirus variants) or in tuberculosis (TB) diagnosis.

Patients may be entering the UK or going abroad against their will (for example, for trafficking, forced marriage or female genital mutilation (FGM)) or to participate in criminal activities, and you should be familiar with General Medical Council (GMC) guidance and the law around these issues. GPs have a wider leadership and advocacy role that includes promoting better health systems, services and policies (such as effective local and global responses to international health emergencies and planetary health), antimicrobial stewardship and addressing health inequalities. See the *Population and planetary health topic guide* for further information.

Knowledge and skills guide

For each problem or disease, consider the following areas within the general context of primary care:

- the natural history of the condition, including whether acute or chronic
- the incidence and prevalence, including in different demographic groups
- typical and atypical presentations
- recognition of normal variations throughout life
- risk factors, including lifestyle, socio-economic and genetic factors
- diagnostic features and differential diagnosis
- recognition of ‘alarm’ or ‘red flag’ features
- appropriate and relevant investigations
- interpretation of test results
- management, including initial and continuing care, chronic disease monitoring, emergency care and end-of-life care
- patient and carer information and education, including self-care
- prognosis.

Symptoms and signs

Infectious diseases may be asymptomatic or present with atypical symptoms. Symptoms and signs include:

- cardiac symptoms
- fatigue and non-specific symptoms
- fever
- gastrointestinal symptoms such as diarrhoea, vomiting, abdominal pain
- genitourinary symptoms
- hepatosplenomegaly
- joint pains
- lymphadenopathy
- neurological and neuropsychiatric symptoms
- pruritus
- respiratory symptoms such as cough, shortness of breath, haemoptysis
- skin and mucosal signs (including pathognomonic rashes)
- weight loss.

Common and important conditions

Many infectious diseases are multisystemic, therefore many of the conditions listed below will also appear in several other RCGP topic guides. You should read the relevant section of each topic guide for further information. Conditions seen less frequently in the UK may be more common abroad, and you should consider this when interpreting symptoms and signs.

- Bone, joint and soft tissue infections (for example, septic arthritis, osteomyelitis, necrotising fasciitis)
- Cardiovascular infections (for example, endocarditis, rheumatic fever)
- Common and serious childhood infections (including viral, bacterial, fungal)
- Common ear, nose and throat (ENT) infections
- Covid-19 (including ongoing symptomatic Covid-19 and post-Covid-19 syndrome)
- Fever in the returning traveler and its potential causes (for example, malaria, dengue, typhoid or paratyphoid, chikungunya, other viral haemorrhagic fevers)
- Gastrointestinal infections (for example, amoebiasis, amoebic dysentery, food poisoning (including causative organisms), giardiasis, hydatid disease, travelers' diarrhoea, typhoid)
- Genitourinary infections including sexually transmitted and urinary tract infections
- Healthcare-associated infections (HCAIs) (such as methicillin-resistant staphylococcus aureus (MRSA), Clostridium difficile)
- Helminth infections (for example, schistosomiasis, hookworm, strongyloides)
- Hepatitis of infectious origin
- Human immunodeficiency virus (HIV) and acquired immunodeficiency syndrome (AIDS), including prevention, testing, transmission (including mother-to-child transmission), therapies, prophylaxis and associated diseases (such as pneumocystis jirovecii, cryptococcus spp., cytomegalovirus, candida)
- Immune deficiency: infectious disease in the immune-compromised patient
- Malaria (including malarial prophylaxis)

- Multisystemic infections, including bacterial (for example, staphylococcal, streptococcal), viral (such as Epstein-Barr virus), fungal and parasitic (for example, toxoplasma, Chagas disease)
- Neurological infections (such as meningitis, encephalitis)
- Occupational infections and their management (for example, needlestick infections)
- Ocular infections (such as conjunctivitis, ophthalmia neonatorum)
- Pandemics (such as pandemic influenza)
- Post-operative infections
- Respiratory disease (for example, pneumonia, Legionnaires' disease, influenza)
- Sepsis and the deteriorating patient
- Skin infections (such as bed bugs, cutaneous larva migrans, exanthemata, flea, louse, ringworm, scabies, threadworm, orf, leishmaniasis)
- Tick-borne diseases, including Lyme disease
- Trauma, including injuries, animal bites and wounds
- Tuberculosis and its different manifestations
- Travel-related conditions (for example, altitude related sickness, deep vein thrombosis (DVT), pulmonary embolism (PE), motion sickness, sun or cold exposure, water activities)
- Vaccine-preventable communicable diseases, including cholera, Covid-19, diphtheria, Haemophilus influenzae b (Hib), hepatitis A, hepatitis B, human papillomavirus (HPV), influenza, Japanese encephalitis, measles, meningitis ACWY, meningitis B, meningitis C, mumps, pertussis, pneumococcus, poliomyelitis, rabies, rotavirus, rubella, shingles, tetanus, tick-borne encephalitis, tuberculosis, typhoid, varicella, yellow fever
- Zoonotic diseases (such as leptospirosis, brucellosis)

Examinations and procedures

- Features of infectious diseases through relevant, focused systems examination
- Rashes related to, or pathognomonic of, infectious diseases (such as meningococcal meningitis, erythema chronicum migrans, erythema multiforme, erythema nodosum, viral exanthemata)
- Assessment of an acutely unwell patient with possible infection (including signs of sepsis)
- Safe remote assessment skills
- Home self-monitoring for patients (for example, pulse oximetry in Covid-19 and pneumonia)
- Intramuscular injection administration (such as benzylpenicillin, immunisations)

Investigations

- Use, limitations and interpretation of investigations, such as serological testing, swabs, blood films, urine and stool microscopy and culture, point-of-care testing (also known as near-patient testing), such as C-reactive protein (CRP) test

- Use, limitations and interpretation of the main types of tests for SARS-CoV-2 (coronavirus)
- Common laboratory tests e.g., haematology (including significance of eosinophilia in travellers or those born outside the UK) and biochemistry (including normal parameters)
- Diagnostic imaging, such as chest X-ray
- Screening in asymptomatic patients (for example, chlamydia, HIV, TB)

Service issues

National and international

- Systems of care for people with infectious disease (including primary and secondary care, specialist services, voluntary sector organisations, shared care arrangements and multidisciplinary teams)
- UK's health protection agencies and other major local, national and international organisations involved in emergency planning for, and control of, outbreaks of infection
- UK screening and reporting programmes for infectious diseases
- Statutory notification of diseases
- Contact tracing and treatment of contacts
- Key national policies influencing healthcare provision for patients with infectious diseases
- NHS travel health service provision and the role of the independent sector

Individual, practice and community level

- Antimicrobial resistance (AMR), including causes and relevant measures to reduce it (such as appropriate use of antimicrobial therapy and patient education)
- Fitness to travel documentation
- Immunisation, including:
    - understanding how common vaccines work, along with their major benefits and risks
    - childhood immunisation schedules
    - immunisation in pregnancy, travellers and other important situations, such as contact tracing
    - vaccinations available through the NHS
    - mandatory vaccinations for travel to certain areas
    - vaccine hesitancy, vaccine inequity and measures to address these
- Local emergency response plans and emergency preparedness
- Safe working practice in personal, clinical and organisational settings (including principles and practice of infection control and safe approaches to remote consultations)
- Safe and effective evidence-informed prescribing, including prophylaxis
- Translation services

Additional important content

- Diagnostic overshadowing (for example, assuming that illness in returning travellers is solely related to travel, or that a patient's symptoms during the Covid-19 pandemic are due to Covid-19)
- Diseases likely to affect prospective or returning travellers and those who were born or have lived outside the UK
- Ethical and legal considerations (such as around confidentiality and disclosure, data protection, consent, immunisation, inequalities, rights of migrants to healthcare, capacity and competence)
- Health advice for travellers (including vaccination and other precautions, use of electronic resources and signposting to appropriate services)
- Health inequalities relating to infectious disease (such as differential outcomes in Covid-19)
- Health of refugees, asylum seekers, people born or have lived outside the UK, victims of human trafficking, homeless and traveller populations
- Infectious diseases during pregnancy, birth and breastfeeding, and in older adults, immunosuppressed patients and drug or alcohol users
- Links between planetary health and infectious diseases
- Local and global epidemiology, modes of transmission, incubation periods and periods of communicability of common and important infectious agents
- Non-judgemental conversations and approaches to differing beliefs about infectious diseases (such as acquisition, prevention, treatments and self-care)
- Pre- and post-exposure prophylaxis
- Psychosocial impact of infectious diseases on individuals and their wider social networks
- Relevant guidelines and legislation (such as from the UK Civil Aviation Authority, National Institute for Health and Care Excellence (NICE) and Scottish Intercollegiate Guidelines Network (SIGN), national patient safety initiatives, local antimicrobial guidelines)
- Risk–benefit conversations (for example, around screening and testing for infectious diseases, immunisation and specific vaccines, infection control practices, travel, and therapies) based on the patient's current and past health and individual circumstances, including health literacy
- Travel health during pregnancy (including specific risks, fitness to fly certification)
- Safe and appropriate use of clinical decision aids and scoring systems in people with infectious diseases
- Use of appropriate language or tools to communicate the status of a deteriorating patient (for example, to other health professionals such as ambulance staff)
- Use of local disease prevalence data to determine what conditions are common in your area and in various demographic groups, and interpretation of symptoms and signs accordingly.
- Use of personalised care principles such as Making Every Contact Count (MECC), for example, relating to vaccine uptake

Case discussion

Alex Campbell, a 20-year-old university student, is planning to travel to Southeast Asia for two months. She visits you for travel advice as the nurse who runs the travel clinic is absent.

She has no significant past medical history. Her only medication is the combined oral contraceptive pill (COCP), which she uses for contraception and dysmenorrhoea. She is concerned about her DVT risk when flying while on the COCP but is reluctant to stop it. Her childhood immunisations are up to date, and she is fully vaccinated against Covid-19.

Using the NHS Fit for Travel website and other accredited resources, you provide Alex with country-specific and general travel advice, such as on the risk of infectious diseases, vaccinations needed, malaria prophylaxis, sun exposure and travel insurance.

After six months, you see her as an emergency appointment. She returned to the UK three days ago and has been having diarrhoea and vomiting for five days. On further exploration, she also admits to having unprotected sexual intercourse with a fellow traveller over a month ago and is worried about sexually transmitted conditions.

Questions

These questions are provided to prompt you to consider the key points of the case. They can form the basis of a case discussion with your educational supervisor and will assist you in writing reflective entries in your ePortfolio. The questions are examples to trigger reflection and are not intended to be comprehensive.

Core Capabilities	Questions
Fitness to practise This is about professionalism and the actions expected to protect people from harm. This includes the awareness of when an individual's performance, conduct or health, or that of others, might put patients, themselves or their colleagues at risk.	What are my beliefs and assumptions about infectious disease and its acquisition? How might they impact on my consultations with Alex? How do I take care of my own health? Are there any significant risks to my health at work, or risks to patients because of my health? How might these be addressed?
An ethical approach This is about practising ethically with integrity and a respect for equality and diversity.	What ethical issues should I consider in relation to sexually transmitted infections (STIs) (including HIV) testing? What additional issues might arise if Alex says that she has a partner?

Communicating and consulting This is about communication with patients, the use of recognised consultation techniques, establishing and maintaining patient partnerships, managing challenging consultations, third-party consulting, the use of interpreters and consulting modalities across the range of in-person and remote methods.	How might I optimise consultations involving sensitive issues, including when the patient does not speak English? How can I involve Alex in shared decision-making in this case? How confident am I based on the consultation that Alex will come back to see me? What techniques could I use to improve rapport and build trust?
Data gathering and interpretation This is about the gathering, interpretation and use of data for clinical judgement, including information gathered from the history, clinical records, examination and investigations.	How confident am I in taking a sexual history and conducting a risk assessment? What further information do I need about Alex's travel plans to give advice about infectious diseases and vaccinations?
Clinical examination and procedural skills This is about clinical examination and procedural skills. By the end of training, the GP registrar must have demonstrated competence in general and systemic examinations of all the clinical curriculum areas, including the five mandatory examinations and a range of skills relevant to general practice.	What equipment does my surgery have for STI testing in women and men? What methods can be used to test for chlamydia? What factors should be taken into account regarding the timing of STI testing?
Decision-making and diagnosis This is about having a conscious, organised approach to making diagnosis and decisions that are tailored to the particular circumstances in which they are required.	How can I decide which vaccinations to recommend to Alex? What resources can I use to assist me? What signs and symptoms would have influenced me to refer to secondary care when Alex presented with diarrhoea and vomiting?
Clinical management This is about the recognition and a generalist's management of patients' problems.	What should I tell Alex about her risk of DVT? What investigations would have been appropriate to initiate when Alex presented as an emergency? What factors would have influenced me to prescribe antibiotics or antimotility agents when Alex presented with gastroenteritis?

Medical complexity This is about aspects of care beyond the acute problem, including the management of comorbidity, uncertainty, risk and health promotion.	What factors would I have had to consider if Alex had been pregnant? If Alex had been born or grown up in Southeast Asia, would this have altered my travel advice? How would I arrange contact tracing for STIs?
Team working This is about working effectively with others to ensure good patient care and includes sharing information with colleagues and using the skills of a multiprofessional team.	How are patients requiring travel advice or STI testing managed in my practice? What alternative options are there for STI testing in my locality? How can patients access these? Where can my patients receive travel vaccinations such as yellow fever if my practice does not offer it?
Performance, learning and teaching This is about maintaining the performance and effective CPD of oneself and others. The evidence for these activities should be shared in a timely manner within the portfolio.	What is the guidance on management of STIs in primary care? What is the guidance on management of diarrhoea and vomiting in a returning traveller? Where can I seek up-to-date travel advice?
Organisation, management and leadership This is about understanding how primary care is organised within the NHS, how teams are managed and the development of clinical leadership skills.	What policies, protocols or systems are there in my practice relating to infection control (such as needlestick injury, biohazards, disinfection and sterilisation of equipment, infectious patients in communal areas)? How would I know if Alex's immunisations were up to date? Could either of the consultations have been safely conducted remotely? Why or why not? How are patients invited and recalled for non-travel vaccinations (such as flu, shingles)?

Holistic practice, health promotion and safeguarding This is about the ability of the doctor to operate in physical, psychological, socio-economic and cultural dimensions. The doctor is able to take into account the patient's feelings and opinions. The doctor encourages health improvement, self-management, preventative medicine and shared care planning with patients and their carers. The doctor has the skills and knowledge to consider and take appropriate safeguarding actions.	What other issues might be relevant to discuss in the consultation (such as smoking cessation, long-acting reversible contraception (LARC))? Are there any potential differences between the doctor's and patient's agenda in this case? How would I promote safer sex and travel advice for the future? What social, cultural, religious, sexual and environmental factors might I need to take into account?
Community health and environmental sustainability This is about the management of the health and social care of the practice population and local community. It incorporates an understanding of the interconnectedness of health of populations and the planet.	What local initiatives exist to prevent patients acquiring travel-associated conditions (such as free malaria prophylaxis)? Where can I access local public health advice about infectious diseases (including outbreaks)? What are my organisation's pandemic response plans? As a GP, how can I contribute to reducing antimicrobial resistance? How can I best support and empower populations most vulnerable to infectious diseases?

How to learn this area of practice

Work-based learning

The Covid-19 pandemic significantly changed ways of working in general practice and many of these systemic changes, such as remote consultations, remain. General practice is an excellent setting in which to experience, among other things:

- common childhood and adult infections
- first presentation of novel infectious diseases
- infection control practices
- immunisation delivery, including mass population vaccination
- safe use of telephone triage and digital consulting in people with suspected infectious disease
- opportunistic screening of asymptomatic patients.

Within on-call, urgent care and out-of-hours settings you will see more acute conditions, which may present differently in primary care than in the hospital. A key skill is to pick out serious pathology from the large numbers of benign, self-limiting conditions, and you should make sure that you see as many unselected patients as possible to give you the experience and confidence to do so.

You may wish to sit in travel or vaccination clinics within the surgery, attend the local genitourinary medicine or sexual health clinic, or spend some time with your local health protection team. You could also try to find out about local initiatives to improve detection and awareness of communicable diseases (such as TB), which may involve third-sector organisations in partnership with local councils or the NHS. You could find out about or visit other local NHS services such as acute care hubs, hospital at home and Long Covid clinics.

During your hospital rotations you are likely to see acute presentations of adult and childhood infectious diseases, along with exacerbations of chronic diseases. You may wish to attend the infectious diseases clinic or ward, along with any other specialist clinics that serve local population needs in this context.

Self-directed learning

Resources include (but are not limited to):

- NHS Fit for Travel, TravelHealthPro, which is part of the National Travel Health Network and Centre (NaTHNaC), and TRAVAX
- RCGP Covid-19 resources
- the Royal College of Physicians and Surgeons of Glasgow Faculty of Travel Medicine has educational resources, including good practice guidance for providing a travel health service
- UK Health Security Agency guidance on health protection
- Public Health Scotland
- Public Health Wales
- Public Health Agency (Northern Ireland)

Learning with other health care professionals

As well as interacting with doctors, nurses, health visitors and public health specialists in the UK, you may wish to speak to health professionals or patients who have trained in or used a health system outside the UK to understand the similarities and differences compared with your own system, including potential differences in disease spectrum and presentation.

Structured learning

Various universities offer diplomas or short courses in tropical/travel medicine. The Royal College of Physicians and Surgeons of Glasgow Faculty of Travel medicine offers additional qualifications in travel medicine.

Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- Appropriate antibiotic therapy for specific infections
- Recognition and management of skin infections
- Interpretation of abnormal blood results

Simulated Consultation Assessment (SCA)

- A student has been travelling in Southeast Asia and returned last week with a high fever, headache and exhaustion. A thick film for malaria was negative yesterday
- An elderly woman has an itchy rash over her body and limbs. Symptoms are worse at night and persist despite a recent prescription of emollients
- A newly registered patient with HIV wants to discuss shared care arrangements with the local hospital and is concerned about the confidentiality of his medical records

Workplace-based Assessment (WPBA)

- Consultation Observation Tool (COT) about a request for antibiotics to take on holiday in case they are needed for gastroenteritis
- Learning log about managing a man who had a spider bite while on holiday and is now unwell with an ulcerated skin lesion
- Learning log about your involvement in the practice travel clinic

Learning disability

About this topic guide

This topic guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you understand important issues relating to learning disability by illustrating the key learning points with a case scenario and questions. It also contains tips and advice for learning, assessment and continuing professional development (CPD), including guidance on the knowledge relevant to this area of general practice.

Each topic guide is intended to illustrate important aspects of everyday general practice, rather than provide a comprehensive overview of each clinical topic. It should therefore be considered in conjunction with other topic guides and educational resources.

The role of the GP in the care of people with learning disabilities

As a GP, your role is to:

- diagnose, investigate and manage people with learning disabilities, using history, examination, monitoring and referral where appropriate. Consider how differences can vary over time as well as between individuals
- communicate effectively and consider the need for reasonable adjustments
- be aware of the social and psychological impact of learning disabilities, including the benefits of diagnosis for access to support and potential issues such as social stigma
- understand the difference between learning disabilities and learning difficulties
- recognise the risk of diagnostic overshadowing and potentially atypical presentations, especially when unwell
- coordinate care with carers and other organisations and professionals (including other health, education and social care services) and consider when and how best to share information
- offer regular advice and support to patients, relatives and carers regarding prevention, prescribing, monitoring and self-management to address poorer health outcomes, reduced life expectancy and overall health inequalities.

Knowledge and skills guide

Consider the following areas within the general context of primary care:

- equality and diversity
- effect on family and carers
- cultural and religious factors
- educational needs and the role of education, health and care (EHC) plans

- local services available for support, such as specialist early education services, speech and language support and financial support
- impact on any other existing physical and/or mental health conditions, including the importance of dual diagnoses with neurodevelopmental conditions
- awareness of conditions that are more likely to develop (for example, dementia, malnourishment, obesity, osteoporosis)
- safe prescribing and managing polypharmacy, including when to stop medication
- adolescence and puberty, including menarche, safe sex and contraception
- safeguarding of vulnerable children and adults
- consent, capacity and confidentiality ,including consideration of mental capacity assessment, power of attorney, advanced directives and 'do not attempt resuscitation' (DNAR) notices where relevant.

Common and important conditions

- Onset before birth, including genetic and maternal issues when pregnant (such as Fragile X, Down's syndrome and fetal alcohol spectrum disorder (FASD))
- Onset during birth, such as complications resulting in hypoxia (such as cerebral palsy)
- Onset during early childhood (for example, meningitis or injury)
- Profound and multiple learning disability (PMLD)

Service issues

- Reasonable adjustments to consider the time, environment, access, communication and help needed
- Use of practice and population-level data such as registers to improve care
- Adolescents transitioning from paediatric to adult care
- Communication and collaboration between services when there is more than one diagnosis, for example, cardiac condition, dementia, autism
- Digital technology is increasingly prevalent and needs to be carefully considered so that it does not become a barrier. People with learning disabilities can struggle with digital literacy and access to technology

Case discussion

Amy Clark is a 41-year-old woman who lives in a residential home supported by staff, some of whom are permanent and some of whom are employed temporarily by an agency. She has a learning disability and attends a local training centre five days each week. Her parents live near the residential home and visit her regularly; every other weekend she returns home.

The staff bring Amy to see you, saying that recently her behaviour has changed. She is accompanied by a carer who has looked after her for two years and relates a detailed history, together with their concerns:

- Amy has become aggressive, especially at mealtimes. She can lash out and hit a member of staff or someone sitting next to her during a meal.
- Her appetite has decreased and there is concern she has lost weight.
- Whereas before she used to be the first resident ready to go to the training centre every morning, she is now rarely ready and needs help with dressing before she goes.
- She used to recount to her parents what she had made and done each day but now remains quiet when they visit.

You ask about her general health and the staff tell you that:

- Amy frequently wets herself
- her periods are no problem now because she has not had one for seven months
- her sleep is disturbed, and she wanders from her room at least once every night
- her bowels open every day as before, but she has become incontinent of faeces.

Questions

These questions are provided to prompt you to consider the key points of the case. They can form the basis for a case discussion with your educational supervisor and will assist you in writing reflective entries in your ePortfolio. The questions are examples to trigger reflection and are not intended to be comprehensive.

Core capabilities	Questions
Fitness to practise This is about professionalism and the actions expected to protect people from harm. This includes the awareness of when an individual's performance, conduct or health, or that of others, might put patients, themselves or their colleagues at risk.	What are my beliefs and assumptions about learning disabilities? Might they impact on my interaction with Amy and her carer?
An ethical approach This is about practising ethically with integrity and a respect for equality and diversity.	What does patient autonomy mean for this patient? How would I react to this consultation if an adult without a learning disability had presented with the same behaviour? What social, legal and ethical factors are important when considering Amy's ability to make decisions about her care?

Communicating and consulting This is about communication with patients, the use of recognised consultation techniques, establishing and maintaining patient partnerships, managing challenging consultations, third-party consulting, the use of interpreters and consulting modalities across the range of in-person and remote methods.	What are the difficulties in obtaining a history of behaviour change in an adult with a learning disability? How might I optimise communication with Amy (for example, consultation skills, communication aids)? How might communicating with Amy's carer affect the doctor–patient relationship?
Data gathering and interpretation This is about the gathering, interpretation and use of data for clinical judgement, including information gathered from the history, clinical records, examination and investigations.	How else could I obtain further information? What further investigations are needed? What bedside tests might be helpful?
Clinical examination and procedural skills This is about clinical examination and procedural skills. By the end of training, the GP registrar must have demonstrated competence in general and systemic examinations of all the clinical curriculum areas, including the five mandatory examinations and a range of skills relevant to general practice.	What physical examinations would be appropriate in this case? What issues should I take into account before conducting a physical examination? What screening tools might I use to assess Amy's mental health?
Decision-making and diagnosis This is about having a conscious, organised approach to making diagnosis and decisions that are tailored to the particular circumstances in which they are required.	What factors could explain the changes to Amy's behaviour and general health? What are my differential diagnoses and how could I explore them?
Clinical management This is about the recognition and a generalist's management of patients' problems.	What drug and non-drug interventions are available to help manage challenging behaviour in people with a learning disability? Are there any gaps in Amy's care that need addressing? How will I follow up this consultation?

Medical complexity This is about aspects of care beyond the acute problem, including the management of comorbidity, uncertainty, risk and health promotion.	What are the legal considerations for an adult with a learning disability residing in a supported home whose parents visit at least weekly? What do I know about safeguarding adults? What safeguarding issues do I need to explore in this case? How does the practice coordinate health promotion for patients living in residential care?
Team working This is about working effectively with others to ensure good patient care and includes sharing information with colleagues and using the skills of a multiprofessional team.	Who are the other members of this patient's care team, of which I am a member? How do the different people and agencies involved in Amy's care communicate with each other? Have all clinicians, carers and support staff received appropriate training about learning disability?
Performance, learning and teaching This is about maintaining the performance and effective CPD of oneself and others. The evidence for these activities should be shared in a timely manner within the portfolio.	What are the difficulties of getting research data about the management of patients with a learning disability? What evidence base underlies the use of regular health checks in people with a learning disability? How much do I know about specialist support services (such as behavioural support teams and psychiatric or neurological assessment) and their availability in my area? What local or national guidelines (for example, from the National Institute for Health and Care Excellence (NICE) and Scottish Intercollegiate Guidelines Network (SIGN)) are there about learning disability?
Organisation, management and leadership This is about understanding how primary care is organised within the NHS, how teams are managed and the development of clinical leadership skills.	How can a practice prepare for acute episodes of illness in adults with a learning disability? How could my practice environment impact on the care provided to people with a learning disability (such as access, atmosphere in the

	waiting area, measures taken to compensate for sensory impairment)?
Holistic practice, health promotion and safeguarding This is about the ability of the doctor to operate in physical, psychological, socio-economic and cultural dimensions. The doctor is able to take into account the patient's feelings and opinions. The doctor encourages health improvement, self-management, preventative medicine and shared care planning with patients and their carers. The doctor has the skills and knowledge to consider and take appropriate safeguarding actions.	What does the biopsychosocial model mean for patients with a learning disability?
Community health and environmental sustainability This is about the management of the health and social care of the practice population and local community. It incorporates an understanding of the interconnectedness of health of populations and the planet.	What community resources (such as residential facilities, daytime activities, support groups, advocacy) are available to this patient in my practice area, including those provided by the voluntary sector?

How to learn this area of practice

Work-based learning

In general practice, GP registrars should take the opportunity to gain a better understanding of patients who are looked after in partnership with the specialist team and other agencies. You should also actively assist in regular health checks.
You may also wish to spend time with your local learning disability specialist and attend specialist clinics to gain a better understanding.

Self-directed learning

The care of people with a learning disability is an excellent subject for discussion with your GP trainer and in groups with other GP registrars. Additionally, discussing issues with patients and carers themselves will help you gain valuable insights into the health and social care needs of those with a learning disability.

You can find an eLearning module(s) relevant to this topic guide at elearning for healthcare.

Learning with other healthcare professionals

The care of people with learning disabilities is a multi-agency activity that involves the patient, their carers and professionals from health and social care. Your learning with other professionals is, therefore, very important to gain a better understanding of their roles and how best care may be delivered.

Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- Recognition of physical or psychiatric illness associated with learning disabilities
- Safeguarding of vulnerable children and adults
- Recognition of normal and delayed child development

Simulated Consultation Assessment (SCA)

- A young woman with a learning disability requests contraceptive advice
- Phone call: a carer wants to discuss differential diagnoses and possible management strategies for a young man with a learning disability and known behavioural issues who has recently developed sudden jerky movements
- A woman with a learning disability is brought to the surgery because she is limping and reluctant to weight-bear. Her medication includes Depo-Provera and sodium valproate

Workplace-based Assessment (WPBA)

- Consultation Observation Tool (COT) about the communication skills required to teach a patient with a learning disability how to use an inhaler
- Case discussion about a couple struggling to cope with caring for the husband's middle-aged sister, who has a learning disability and lives with them

Maternity and reproductive health

About this topic guide

This topic guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you understand important issues relating to maternity and reproductive health by illustrating the key learning points with a case scenario and questions. It also contains tips and advice for learning, assessment and continuing professional development (CPD), including guidance on the knowledge relevant to this area of general practice.

Each topic guide is intended to illustrate important aspects of everyday general practice, rather than provide a comprehensive overview of each clinical topic. It should therefore be considered in conjunction with other topic guides and educational resources.

The role of the GP in maternity and reproductive health

As a GP, your role is to:

- provide pre-conception and health promotion advice (including vaccination) to optimise the health and wellbeing of women who are pregnant or planning a pregnancy
- work with midwives to provide antenatal care, and share care with secondary care for more complicated pregnancies
- provide postnatal care, including postnatal monitoring and medication management, detection and management of postnatal physical and mental health problems, support for breastfeeding, postnatal contraception
- provide care for medical problems that are present in pregnancy – this may include physical or mental long-term health conditions that may predate the pregnancy or develop during pregnancy
- provide care and support for women, and their partners, affected by pregnancy or baby loss and infertility.

Knowledge and skills guide

For each problem or disease, consider the following areas within the general context of primary care:

- the natural history of the condition, including whether acute or chronic
- the incidence and prevalence, including in different demographic groups
- typical and atypical presentations
- recognition of normal variations throughout life
- risk factors, including lifestyle, socio-economic and genetic factors
- diagnostic features and differential diagnosis
- recognition of ‘alarm’ or ‘red flag’ features

- appropriate and relevant investigations
- interpretation of test results
- management, including self-care, initial and continuing care, chronic disease monitoring and emergency care
- patient and carer information and education, including self-care
- prognosis.

Symptoms and signs

- Normal pregnancy symptoms and signs
- Abnormal pregnancy symptoms and signs, including abnormal abdominal palpation (fetal size and lie), bleeding, hyperemesis, pain (abdominal or pelvic), pre-eclampsia symptoms and signs, preterm labour, reduced fetal movements, symptoms of venous thromboembolic disease, symptoms suggestive of exacerbation of coexistent medical conditions
- Perinatal mental health symptoms
- Postnatal symptoms including abnormal bleeding and symptoms of breastfeeding problems

Common and important conditions

- Perinatal mental health, including adjustment disorders, antenatal depression, 'baby blues', chronic mental illness in the perinatal period, obsessive compulsive disorder (OCD), paternal perinatal mental illness, postnatal depression, post-partum psychosis, post-traumatic stress disorder (PTSD) and tokophobia
- Pre-conception care and advice, including health promotion advice (for example, smoking cessation and weight loss), medication adjustments, optimisation of pre-existing medical conditions, immunisation, supplementation, family history-taking to identify couples at increased risk of a child affected with an inherited condition
- Pregnancy with social complications, such as domestic violence, drug and alcohol misuse, homelessness, safeguarding concerns, teenage pregnancy
- Prescribing prenatally and perinatally, including teratogenesis

<u>Antenatal care</u>

- Principles and guidelines for routine antenatal care, including recommended supplements, dietary and lifestyle advice, immunisation in pregnancy
- Antenatal screening for fetal and maternal conditions
- Pregnancies complicated by pre-existing medical conditions, including asthma, cancer, cardiac disease, diabetes mellitus, epilepsy, hypertension, human immunodeficiency virus (HIV) infection, mental health conditions, obesity, thyroid disease and venous thromboembolism
- Indications for aspirin prophylaxis
- Antenatal complications, such as:
    - bleeding and pelvic or abdominal pain in pregnancy
    - congenital abnormalities

    - early pregnancy loss: miscarriage, ectopic and molar pregnancy
    - growth problems: abnormal symphysial fundal height
    - haematological problems such as haemoglobinopathies (including sickle cell disease and thalassaemia), haemolytic disease (including rhesus incompatibility and prophylaxis) and thromboembolism
    - infections, for example urinary tract infection, asymptomatic bacteriuria, group B streptococcus, chickenpox, chorioamnionitis, Covid-19, cytomegalovirus, hepatitis, herpes simplex, HIV, listeria, parvovirus and rubella
    - intrauterine death and stillbirth
    - malpresentation including breech and transverse lie
    - metabolic problems arising in pregnancy, for example hyperemesis, gestational diabetes, jaundice, obstetric cholestasis
    - multiple pregnancy
    - pregnancy-induced hypertension, pre-eclampsia and eclampsia
    - reduced fetal movements

Delivery

As a GP you should understand this aspect of maternity care and women's experiences of the common types of delivery, but in general a GP is not expected to be able to provide intrapartum care.

- Normal labour and common problems of labour including premature labour, prolonged pregnancy, induction of pregnancy
- Caesarean sections: indications and associated complications, options for subsequent deliveries, including vaginal birth

Postnatal care

- Normal postnatal care, including routine 'neonatal examination' and 'maternal six-week to eight-week check'
- Infant feeding, including breastfeeding (see also the *Children and young people* topic guide)
- Postnatal problems, including breastfeeding problems, bladder and bowel problems, mental health problems, retained products, uterine infection, wound problems
- Providing contraception advice postnatally and after pregnancy loss
- After baby loss, including sudden unexpected death in infancy (SUDI); consider a parent-led bereavement care plan providing continuity between settings (including GPs)

Unwanted pregnancy and termination of pregnancy are covered in the *Sexual health* topic guide.

Examinations and procedures

- Antenatal examination, including abdominal palpation, assessment of symphysial fundal height and fetal heart rate, blood pressure and urinalysis

Investigations

- Pregnancy investigations, including:
    - laboratory tests to evaluate gestational diabetes, obstetric cholestasis and pre- eclampsia
    - screening and prenatal diagnosis for congenital abnormalities, including amniocentesis and chorionic villus sampling
    - antenatal screening, including triple test, quad test, nuchal test, haemoglobinopathy screening and anomaly ultrasound scan
    - tests for infection including asymptomatic bacteriuria, HIV, syphilis
    - ultrasound for dating, growth and fetal wellbeing
    - urinary and serum β-HCG
- Primary care investigation of female subfertility, including blood tests and ultrasound
- Semen analysis

Service issues

- Local arrangements for fertility treatments, antenatal care and delivery, including shared care with midwifery services and with secondary care
- Local services to support women who are breastfeeding
- Local support and services for women with perinatal mental health problems, including strategies to identify these women
- Maternity rights, benefits, schemes and associated administration, for example., Healthy Start, maternity certificate Mat B1 form, maternity exemption from prescription charges
- Safeguarding of unborn children and neonates
- Screening for domestic and intimate partner violence in the context of antenatal care
- Strategies to reduce teenage and unplanned pregnancies
- Working to reduce inequalities and ethnic disparity in pregnancy outcomes, including maternal death
- Cultural variation in approaches to pregnancy and childbirth

Case discussion

Sophia Khan is a 40-year-old mother of five girls who comes to see you to tell you that she has found out she is newly pregnant with her sixth child. She has type 2 diabetes and has a body mass index (BMI) of 42. She speaks poor English, and her husband translates for her. He tells you she is ‘fine’ except for some achy joints and asks how soon they can find out the sex of the baby. Sophia looks downcast and close to tears. Her medical

records show that she had an emergency caesarean at her last delivery due to fetal distress. The health visitor had suspected that she suffered from postnatal depression after this child was born and arranged for Sophia to see you when the baby was two months old, but despite your best efforts to explore this she was very reluctant to talk to you about how she was feeling.

Questions

These questions are provided to prompt you to consider the key points of the case. They can form the basis for a case-based discussion with your educational supervisor and will assist you in writing reflective entries in your ePortfolio. The questions are examples to trigger reflection and are not intended to be comprehensive.

Core capabilities	Questions
Fitness to practise This is about professionalism and the actions expected to protect people from harm. This includes the awareness of when an individual's performance, conduct or health, or that of others, might put patients, themselves or their colleagues at risk.	If I or my partner are personally struggling with fertility or recurrent miscarriage, how would I react when consulting with women for whom getting pregnant seems easy, or who have an unwanted pregnancy?
An ethical approach This is about practising ethically with integrity and a respect for equality and diversity.	How do I explore the couple's reasons for wanting to know the gender of the baby? How do I react to families from cultural settings where female babies are less valued than males? How do I respect a patient's choice not to discuss personal matters such as their emotions with me? How do I know when to press them harder on this and when to step back?
Communicating and consulting This is about communication with patients, the use of recognised consultation techniques, establishing and maintaining patient partnerships, managing challenging consultations, third-party consulting, the use of interpreters and consulting modalities across the range of in-person and remote methods.	What are the issues around the use of interpreters, particularly if they are a family member or intimate partner? What alternative interpreting services are available in my locality? How can I develop my non-verbal communication skills? How do I explore the couple's reasons for wanting to know the gender of the baby?

Data gathering and interpretation This is about the gathering, interpretation, and use of data for clinical judgement, including information gathered from the history, clinical records, examination, and investigations.	How do I assess Sonia's diabetes control? How do I try to assess whether or not she is depressed? What tools can I use for screening for postnatal depression?
Clinical examination and procedural skills This is about clinical examination and procedural skills. By the end of training, the GP registrar must have demonstrated competence in general and systemic examinations of all the clinical curriculum areas, including the five mandatory examinations and a range of skills relevant to general practice.	How do I assess the gestation of a pregnancy? Am I proficient at carrying out a routine antenatal check?
Decision-making and diagnosis This is about having a conscious, organised approach to making diagnosis and decisions that are tailored to the particular circumstances in which they are required.	What would make me decide I needed to arrange to see Sophia without her husband present? How would I communicate this to them?
Clinical management This is about the recognition and a generalist's management of patients' problems.	What do I know about the management of diabetes in pregnancy? How can I advise her on this at the initial consultation? What pre-conception advice should be given to women with diabetes planning a pregnancy? What are the local arrangement for care of pregnant women with diabetes? What are the local guidelines on delivery for women who have had a previous caesarean section?

Medical complexity This is about aspects of care beyond the acute problem, including the management of comorbidity, uncertainty, risk and health promotion.	How do I manage Sonia's multiple risk factors for pregnancy complications? How do I address my concerns that this baby might be at risk of gender-based abortion? How do I evaluate whether her 'achy joints' may have an underlying physical cause or whether they might be somatisation?
Team working This is about working effectively with others to ensure good patient care and includes sharing information with colleagues and using the skills of a multiprofessional team.	How do I ensure Sophia has coordinated care with community teams, including GPs, midwives, health visitors and secondary care antenatal services? How do I raise any safeguarding concerns that might relate to this pregnancy?
Performance, learning and teaching This is about maintaining the performance and effective CPD of oneself and others. The evidence for these activities should be shared in a timely manner within the portfolio.	How do I keep up to date with the latest guidelines and recommendations for conditions that I might see infrequently (such as diabetes in pregnancy)? How do I maintain my skills in providing antenatal care for uncomplicated pregnancies when it is increasingly common for women to be cared for almost exclusively by midwives?
Organisation, management and leadership This is about understanding how primary care is organised within the NHS, how teams are managed and the development of clinical leadership skills.	How does my organisation ensure that all women who are of child-bearing age and have diabetes receive appropriate pre-conception advice? What are the different systems of record-keeping used in antenatal care and how are they coordinated?

Holistic practice, health promotion and safeguarding This is about the ability of the doctor to operate in physical, psychological, socio-economic and cultural dimensions. The doctor is able to take into account the patient's feelings and opinions. The doctor encourages health improvement, self-management, preventative medicine and shared care planning with patients and their carers. The doctor has the skills and knowledge to consider and take appropriate safeguarding actions.	How can we promote mental and physical wellbeing in the perinatal period? How can we tackle the stigma around perinatal mental illness? How much do I understand about different cultural attitudes to childbearing?
Community health and environmental sustainability This is about the management of the health and social care of the practice population and local community. It incorporates an understanding of the interconnectedness of health of populations and the planet.	What services are available locally to support women struggling with perinatal mental health problems? In what ways can we develop services to help patients for whom English is not their first language?

How to learn this area of practice

Work-based learning

Primary care placements are the ideal opportunity for a GP registrar to learn how to manage maternity and reproductive health because it is where the vast majority of patients with these concerns are cared for.

Some GP specialty training programmes contain placements of varying length in obstetric and gynaecology units. These will give you exposure to patients with obstetric concerns, including possibly experience in day assessment units or outpatient clinics for women with complicated pregnancies. It is also a good opportunity to observe deliveries, including normal deliveries, assisted deliveries and caesarean sections.

Self-directed learning

Reproductive health is part of normal life experience for many GP registrars and reflecting on your own experiences or those of or family and friends in this area of healthcare can provide valuable insights.

The RCGP Women's Health Library provides educational resources and guidelines on women's health, including maternal health resources and a women's health toolkit. You can find eLearning module(s) relevant to this topic guide at elearning for healthcare and at RCGP eLearning.

Learning with other healthcare professionals

As a GP registrar, it is essential that you understand the variety of services provided in the community. Working with community midwives will give an insight into community antenatal care. Health visitors have a key role to play in supporting women in the postnatal period and time spent shadowing them can give valuable insight into how they provide this support. Learning how to work with these professionals is an essential aspect of being able to provide holistic care.

Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- Diagnosis and management of common symptoms in pregnancy
- Primary care investigations for failure to conceive
- Routine antenatal screening tests

Simulated Consultation Assessment (SCA)

- A woman in early pregnancy requests an abortion. She describes risky sexual behaviours associated with alcohol
- A woman in a stable same-sex relationship requests referral to the assisted conception clinic
- A woman who is 10 days postnatal attends with flu-like symptoms and a painful breast

Workplace-based Assessment (WPBA)

- Case-based Discussion (CbD) about a woman who is hepatitis B positive on routine antenatal testing and her husband is her only sexual partner
- Learning log on a couple who have had a recent stillbirth
- Clinical examination and procedural skills (CEPS) – examination of a pregnant woman in the third trimester of pregnancy

Mental health

About this topic guide

This topic guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you understand important issues relating to the care of people with mental health conditions by illustrating the key learning points with a case scenario and questions. It also contains tips and advice for learning, assessment and continuing professional development (CPD), including guidance on the knowledge relevant to this area of general practice.

Each topic guide is intended to illustrate important aspects of everyday general practice, rather than provide a comprehensive overview of each clinical topic. It should therefore be considered in conjunction with other topic guides and educational resources.

The role of the GP in the care of people with mental health conditions

As a GP, your role is to:

- develop trusting relationships by giving the patient time to talk about their concerns
- communicate effectively, professionally and sensitively with patients, relatives and carers, recognising potential difficulties in communicating with people with mental health conditions and the importance of generating and maintaining rapport, supported through continuity of care
- consider potential complexities in presentation and range of mental health needs and concerns
- take account of psychosocial factors, including cultural background, bereavement, unemployment, relationship problems, alcohol and substance misuse, and gambling
- consider life-course factors – adverse childhood experiences (ACEs), interactions between work and mental health, the impact of being a carer, older adults with cognitive impairment who initially present with anxiety and depression
- assess risk to make the patient's safety and the safety of yourself and others a priority. Be aware that risk assessment is important but that there are no validated scales that predict suicide
- use history and examination to come to a diagnosis of a mental health condition and be comfortable in discussing this diagnosis with the patient
- distinguish a mental health condition and its management from distress and advice about promoting mental wellbeing
- be proactive, offer continuity of care, negotiate a shared management plan, arrange follow-up and give advice on when and who to call for help ('safety-netting')

- ensure early intervention with appropriate referral
- consider evidence-based prescribing and deprescribing of medication for people with mental health problems, including antidepressants, antipsychotics and anxiolytics, as well as monitoring requirements
- have a basic understanding of indications for, and principles of, psychological therapies such as cognitive behavioural therapy (CBT), interpersonal therapy (IPT) and family therapies. Be aware that these therapies may need to be specifically tailored for neurodivergent individuals
- be aware of the physical health needs of people with severe mental illness (SMI) (including side effects of antipsychotics) and the mental health needs of people with long-term physical conditions
- avoid diagnostic overshadowing. Offer advice and support to patients, relatives and carers regarding prevention, prescribing, monitoring and self-management of both mental and physical multimorbidity
- coordinate care with other organisations and professionals (for example, ambulance service, community mental health teams, social workers, secondary care, voluntary and community sectors, social prescribers and police)
- follow agreed protocols, including as part of the Mental Health Act and the Mental Capacity Act where appropriate
- be aware of differences in legislation across the UK.

Knowledge and skills guide

For each problem or disease, consider the following areas within the general context of primary care:

- the natural history of the condition, including whether acute or chronic
- the incidence and prevalence, including in different demographic groups
- typical and atypical presentations of common mental health conditions
- recognition of normal variations through the life course
- risk factors, including lifestyle, socio-economic and genetic factors
- diagnostic features and differential diagnosis
- recognition of ‘alarm’ or ‘red flag’ features
- appropriate and relevant investigations
- interpretation of test results
- management including initial and continuing care, chronic disease support and emergency care
- patient and carer information and education, including self-care
- prognosis.

Symptoms and signs

Below is a list of common presentations or symptoms that may represent mental illness. The role of the GP is to differentiate between stress, distress, mood disorder and

diagnosable mental illness, working with the patient to agree what the problem is and management options.

- Fatigue and feeling tired all the time
- Poor concentration and motivation
- Reports of feeling stressed or anxious
- Behaviour change, such as irritability, anger, hypervigilance and self-harm
- Sleep disturbance, including insomnia and hypersomnia, night terrors and early morning awakening
- Feelings of worthlessness, self-harm or suicidal thoughts
- Persistent physical symptoms that are not explainable after investigation
- Psychomotor agitation or retardation
- Hallucinations
- Unusual ideas or beliefs, which may be delusions
- Thought disorders
- Acute confusional state, such as delirium
- Memory disturbance

Some of these symptoms can represent physical ill health or are comorbid with physical health problems.

Common and important conditions

- Mood (affective) problems such as depression, including features of a major depression such as psychotic and biological symptoms; cyclothymia and bipolar disorder
- Self-harm, including putting themselves in dangerous situations as well as self-poisoning and cutting; suicidal ideation and behaviour
- Anxiety, including generalised anxiety and panic disorders, phobias and situational anxiety
- Obsessive disorders, including obsessive compulsive disorder (OCD), skin picking disorder, body dysmorphic disorders and rarer conditions, including trichotillomania
- Acute adjustment reactions
- Eating disorders, including in those living with obesity, binge eating disorder, anorexia and bulimia nervosa
- Severe behavioural disturbance, including psychotic disorders such as schizophrenia, acute paranoia and acute mania
- Personality disorders, including borderline, antisocial, narcissistic
- Bereavement reactions and persistent grief
- Sleep disorders, including insomnia, sleepwalking
- Trauma, including post-traumatic stress disorder (PTSD), dissociative identity disorder
- Pregnancy-associated disorders such as antenatal, perinatal and postnatal anxiety and depression, puerperal psychosis
- Mental health disorders associated with physical health disorders:

    - anxiety and depression comorbid with physical long-term conditions such as diabetes, cardiovascular disease, inflammatory arthritis, chronic obstructive pulmonary disease (COPD) and neurological disorders
    - anxiety, depression and psychosis associated with learning disabilities and neurodiversity
    - anxiety, depression and/or psychosis associated with treatment prescribed for physical health disorders, such as steroids
- Organic reactions such as delirium
- Addictive and dependent behaviour such as alcohol and substance misuse and gambling. This is common in those experiencing mental health problems (termed 'dual diagnosis') and is often unrecognised
- Mental health disorders associated with substance misuse
- Adjustment reactions associated with life stages such as childhood, adolescence and ageing
- Impact of ACEs on development of mental health problems in adolescence and adulthood
- Abuse, including child, sexual, elder, domestic violence and emotional
- Behavioural problems such as enuresis, encopresis and school refusal

It is important to consider the cultural context of patients and presentation of their symptoms, which may represent mental health problems, including spiritual and religious beliefs and practices. It is also essential to consider the possibility of unrecognised neurodivergence in patients presenting with mental health disorders.

Mental health problems are more common in people from lower socio-economic groups – another example of health inequalities. Deprivation means that problems can occur at an earlier age and patients are less likely to be able to access a range of treatments.

Examinations and procedures

- Perform a relevant physical and mental state examination
- Understand and discuss the role of common drugs (antidepressants, antipsychotics, anxiolytics), their side effects and monitoring requirements with patients and carers and collaboratively plan the length of treatment and how to stop medication
- Understand and explain the role and content of psychological therapies with patients and carers, including CBT, eye movement desensitisation and reprogramming (EMDR), counselling, psychotherapy, psychoanalysis, aversion, flooding and desensitisation therapies, family therapies
- Understand and discuss suicide prevention strategies
- Understand the role of the GP in detaining patients, including the Mental Health Act and the Mental Capacity Act (or equivalent legislation)
- Electroconvulsive therapy indications and side effects

Investigations

- Screening for metabolic and cardiovascular risk factors in people with SMI, ensuring that such risks are minimised through appropriate lifestyle advice and management, including facilitating behaviour change and making changes to medication where appropriate
- Appropriate use and interpretation of assessment tools for mental health conditions such as depression, anxiety, postnatal depression screening scales, dementia screening, suicide risk assessment and risk of self-harm
- Monitoring of people on medication such as anxiolytics and antipsychotic medication (for example lithium)
- Physical investigations such as blood tests, electrocardiogram (ECG) and relevant neurological investigations, when indicated

Service delivery

- The prevalence of mental health conditions and needs among your own practice population
- Practice registers for specific mental health conditions and recording the required data
- The role of urgent care services, including emergency departments, liaison psychiatry, crisis services and telephone support, and their local availability
- Availability of and referral to voluntary and community services and charities that promote mental health and wellbeing
- The range of psychological therapies available, including CBT, mindfulness, counselling, psychodynamic, psychosexual and family therapy
- Increasing equity of access to primary care and mental health services, including potential access issues for those who are vulnerable or have different cultural backgrounds
- Safe prescribing, including duration of prescriptions, drug interactions and side effects, required monitoring, consequences of overdose and prescribing in children, pregnant women and older adults
- Supporting patients in making choices about which treatment options may work best for them. The ability to choose improves the likely effectiveness of the intervention
- Supporting children in difficulty, and accessing support and advice from specialist child and adolescent mental health services (CAMHS) and CAMHS workers in primary care
- The needs of and services for veterans, including the psychological effects of trauma and war (such as PTSD)

Case example

Bushra Habib is 51 years old and works as a teaching assistant. Her husband has just been made redundant from his job in a national information technology (IT) company. She phones your surgery complaining that she feels stressed all the time and finds it

difficult to sleep. She is tearful over the phone but does not feel that her mood is low. She admits that she worries much of the time and her sleep is poor. She says she is 'just about coping' with her job, but feels she is getting frustrated with her pupils and her own children. She tells you she is worried because her brother is on some very strong tablets for a 'serious mental problem' that the family are ashamed to talk about.

With the help of a GAD-7 scoring on the generalised anxiety disorder questionnaire (GAD), you discuss with her the possibility that she has 'anxiety' and might benefit from treatment. You also suggest she has a blood test to 'check her thyroid'. She agrees to have the blood test but says she does not want tablets – she feels that she should be able to sort things out for herself. She says she feels that tablets are only for weak people.

You suggest that she might seek support from the local NHS Talking Therapies service. She is not too sure, but you give her details of the service and explain that it is a self-referral service she can contact herself. You also give her some written materials about anxiety and panic, with some links to useful websites – you check she has access to a computer or tablet – and ask her to make an appointment for review in two weeks.

Questions

These questions are provided to prompt you to consider the key points of the case. They can form the basis for a case discussion with your educational supervisor and will assist you in writing reflective entries in your ePortfolio. The questions are examples to trigger reflection and are not intended to be comprehensive.

Core capabilities	Questions
Fitness to practise This is about professionalism and the actions expected to protect people from harm. This includes the awareness of when an individual's performance, conduct or health, or that of others, might put patients, themselves or their colleagues at risk.	What are the boundaries of my involvement and responsibilities in Bushra's case? How do I maintain my own health as a GP?
An ethical approach This is about practising ethically with integrity and a respect for equality and diversity.	How do I feel about patients consulting me with complex psychosocial and mental health problems? How do I deal with my feelings about working with patients who are distressed?

	What are the relevant sections of the General Medical Council (GMC) *Good medical practice* guidance?
Communicating and consulting This is about communication with patients, the use of recognised consultation techniques, establishing and maintaining patient partnerships, managing challenging consultations, third-party consulting, the use of interpreters and consulting modalities across the range of in person and remote methods.	How might mental health problems affect communication between doctor and patient? How do I demonstrate empathy with people with mental health problems? How do my own feelings and situation affect my interactions?
Data gathering and interpretation This is about the gathering, interpretation and use of data for clinical judgement, including information gathered from the history, clinical records, examination and investigations.	What is the differential diagnosis in this patient? What elements of the patient's narrative and biographical data might point to depression? How do I sensitively explore alcohol and substance use?
Clinical examination and procedural skills This is about clinical examination and procedural skills. By the end of training, the GP registrar must have demonstrated competence in general and systemic examinations of all the clinical curriculum areas, including the five mandatory examinations and a range of skills relevant to general practice.	Which clinical assessment tools for depression and anxiety are appropriate for use in primary care? What are the essential 'red flag' symptoms and signs for depression and anxiety? How would I assess suicide risk in this patient (being aware that there are no validated tools for predicting risk of suicide)?
Decision-making and diagnosis This is about having a conscious, organised approach to making diagnosis and decisions that are tailored to the particular circumstances in which they are required.	How do I prioritise my management of different biological and psychological symptoms? Am I familiar with variations and patterns of presentations of common mental health conditions? How might time and continuity influence my decisions?

Clinical management This is about the recognition and a generalist's management of patients' problems.	What are the important evidence-based guidelines for management of mental health problems in primary care? When and how should I refer to specialist services? How can I try to maintain some continuity of care when I have no appointments or am on annual leave?
Medical complexity This is about aspects of care beyond the acute problem, including the management of comorbidity, uncertainty, risk and health promotion.	How could comorbid long-term conditions affect the presentation of mental health conditions? What mental and physical health problems have the most potential for significant interactions with medication? What are the priorities for ensuring patient safety?
Team working This is about working effectively with others to ensure good patient care and includes sharing information with colleagues and using the skills of a multiprofessional team.	What interventions and therapies are available in primary care to manage anxiety? How do we create seamless multidisciplinary services in mental health care? How do we define areas of responsibility and leadership in mental health services?
Performance, learning and teaching This is about maintaining the performance and effective CPD of oneself and others. The evidence for these activities should be shared in a timely manner within the portfolio.	What are the best sources of updated information in mental health? What is the role of peer group support (such as Balint and First5 groups)? How can I audit the standard of care I provide?
Organisation, management and leadership This is about understanding how primary care is organised within the NHS, how teams are managed and the development of clinical leadership skills.	What additional risk factors should we screen for in patients with mental health conditions? What systems need to be in place to ensure safe and consistent monitoring? How do we develop services to improve access to care for marginalised and stigmatised members of society?

	What are the advantages and disadvantages of self-referral systems?
Holistic practice, health promotion and safeguarding This is about the ability of the doctor to operate in physical, psychological, socio-economic and cultural dimensions. The doctor is able to take into account patient's feelings and opinions. The doctor encourages health improvement, self-management, preventative medicine and shared care planning with patients and their carers. The doctor has the skills and knowledge to consider and take appropriate safeguarding actions.	What are the important determinants of and influences on mental health? How does my role extend beyond the medical model? How well equipped am I to explore cultural and spiritual factors in patients' lives? Why might patients be reluctant to access psychological services?
Community health and environmental sustainability This is about the management of the health and social care of the practice population and local community. It incorporates an understanding of the interconnectedness of health of populations and the planet.	How can I ensure equity of access to mental health services? What community resources are available for patients with mental health conditions, including voluntary and charitable services? How do I ensure that I understand and recognise the cultural issues in my practice population? Are there any support groups specifically for patients from certain cultural groups? What support for Bushra could be sought from advocacy services?

How to learn this area of practice

Work-based learning

A significant proportion of primary care consultations involve discussion of mental health concerns. By observing and participating in consultations, you can learn to communicate

sensitively, build trust and respond to cues from patients, their relatives and carers. You will have the opportunity to learn to take a holistic approach to understanding and co-developing an explanation for a patient's illness presentation. You will learn how to differentiate distress from a diagnosable mental illness, how to develop a shared management plan and how to review and revise plans at follow-up.

You will have the opportunity to gain a better understanding of the role of the primary care mental health teams, specialist teams, referral criteria and care pathways. Shadowing other allied healthcare professionals in general practice, such as mental health practitioners and link workers, will help you understand how different team members can support patients with mental health problems, while exploring third sector providers could help you to create a local practice resource directory.

Some GP registrars have psychiatry placements. Where possible, it is valuable to spend time in different mental health care settings to provide insight into patient journeys, from community mental health teams to inpatient wards and crisis teams. You can learn about how referrals to psychiatry are assessed, which patients are cared for by both primary and specialist care, shared care approaches and how the physical health of patients with SMI is monitored and supported.

Learning with other healthcare professionals

Supporting patients with mental health problems often requires teamwork across health and social care and the third sector. Discussion of the roles of individuals representing the many professional and non-professional groups should help you understand the variety of services available. Shadowing people in these different roles, and attending joint learning sessions with psychiatry GP registrars and mental health practitioners, could help you to gain a greater understanding of the services provided locally and the need for cross-agency communication and partnership working.

Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- Diagnosis and management of depression, including psychological and pharmacological options
- Drug treatments for mental health problems, including interactions, side effects and monitoring
- Assessment of physical symptoms in a person with a chronic mental health condition

Simulated Consultation Assessment (SCA)

- A woman has ongoing abdominal pain, and the gastroenterology letter (provided) indicates no organic cause
- A young mother is worried by thoughts that TV and radio presenters are talking about her, despite acknowledging that this cannot logically be the case
- A teenager asks for help with compulsive tidying, which takes hours at a time and is interfering with his schoolwork

Workplace-based Assessment (WPBA)

- Log entry reflecting on the implications of a rejected referral to mental health services when there are serious concerns about the patient's mental state
  History-taking with a patient requesting more sleeping pills

Metabolic problems and endocrinology

About this topic guide

This topic guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you understand important issues relating to endocrinology and metabolic problems by illustrating the key learning points with a case scenario and questions. It also contains tips and advice for learning, assessment and continuing professional development (CPD), including guidance on the knowledge relevant to this area of general practice.

Each topic guide is intended to illustrate important aspects of everyday general practice, rather than provide a comprehensive overview of each clinical topic. It should therefore be considered in conjunction with other topic guides and educational resources (particularly the *People with long-term conditions including cancer* and *Population and planetary health* topic guides).

The role of the GP in the care of people with metabolic and endocrine problems

Good management of common metabolic and endocrine conditions can prevent or postpone associated morbidity and mortality. Additionally, certain conditions such as diabetes and obesity can be prevented through lifestyle and public health measures.

As a GP, your role is to:

- diagnose and manage common disorders such as diabetes mellitus, hyperlipidaemia, and thyroid and reproductive disorders
- recognise rarer and potentially life-threatening disorders such as Addison's disease
- arrange and interpret appropriate biochemical tests for diagnosing and monitoring metabolic or endocrine disorders in a primary care setting
- understand and address the social, psychological and environmental factors underpinning living with obesity, diabetes and other metabolic and endocrine disorders
- understand the relationship between metabolic and endocrine disorders and other disorders such as cardiovascular disease, cancer, sleep apnoea, non-alcoholic fatty liver disease (NAFLD) and mental health problems
- coordinate care, encourage self-management and involve other agencies where appropriate
- recognise and manage metabolic and endocrine emergencies.

Knowledge and skills guide

For each problem or disease, consider the following areas within the general context of primary care:

- the natural history of the condition, including whether acute or chronic
- the incidence and prevalence, including in different demographic groups
- typical and atypical presentations
- recognition of normal variations throughout life
- risk factors, including lifestyle, socio-economic and genetic factors
- diagnostic features and differential diagnosis
- recognition of 'alarm' or 'red flag' features
- appropriate and relevant investigations
- interpretation of test results
- management, including initial and continuing care, chronic disease monitoring and emergency care
- patient and carer information and education, including self-care
- prognosis.

Symptoms and signs

Metabolic and endocrine diseases encompass a wide range of conditions, which may present with vague or non-specific symptoms, or no symptoms at all.

Symptoms and signs include (but are not limited to):

- changes in reproductive and sexual function such as menstrual irregularities, loss of libido, body hair changes and erectile dysfunction
- collapse and coma
- falls
- fractures
- gastrointestinal symptoms, for example nausea, vomiting, diarrhoea, constipation
- headache and visual problems
- high blood pressure
- joint pains and muscle problems
- mood changes
- polydipsia and polyuria
- pruritus
- skin changes
- thirst
- tiredness and lethargy
- weight gain or weight loss.

Common and important conditions

- Adrenal diseases, including Addison's disease, Cushing's syndrome, and disease, phaeochromocytoma, hyperaldosteronism, primary and secondary malignancy, adrenocorticotropic hormone (ACTH) secreting tumours, congenital adrenal hyperplasia
- Adverse metabolic effects of prescribed drugs (such as hypokalaemia with diuretics)
- Carcinoid syndrome, multiple endocrine neoplasia
- Type 1 and type 2 diabetes mellitus, maturity onset diabetes of the young (MODY), latent autoimmune diabetes in adults (LADA), gestational diabetes, pre-diabetes, impaired fasting glucose, impaired glucose tolerance and insulin resistance. In the context of these conditions, you should be aware of:
    - diagnostic thresholds
    - self-monitoring of glucose levels
    - skin and eye manifestations, renal and neurological complications
    - macrovascular complications and cardiovascular risk
    - acute complications such as hypoglycaemia, diabetic ketoacidosis, non-ketotic hyperglycaemia
    - lifestyle factor modification (for example, diet, physical activity, smoking)
    - oral medication for diabetes management, including glucose and lipid-lowering therapies, antiplatelets, angiotensin-converting enzyme (ACE) inhibitors and antihypertensives; recommended treatment targets.
    - injectable medications for diabetes management, including GLP-1 (glucagon-like peptide) agonists and insulin (regimes, administration and dosages)
    - associations with other immunological conditions and types of cancer such as pancreatic cancer
    - the effect of religious and cultural events on diabetes management, for example, Ramadan
- Disorders of calcium metabolism, including hypoparathyroidism, hyperparathyroidism and osteomalacia; association with chronic kidney disease and malignancy (such as bony metastases and myeloma)
- Disorders of sex hormones (for example, hirsutism, virilism, gynaecomastia, impotence, androgen deficiency, androgen insensitivity syndrome)
- Endocrine manifestations of non-endocrine diseases (such as bronchogenic carcinoma with inappropriate antidiuretic hormone (ADH) secretion)
- Haemochromatosis: primary and secondary, and other disorders of iron metabolism
- Hyperlipidaemias: familial and acquired
- Hyperprolactinaemia and its causes (for example, drug-induced, chronic renal failure, bronchogenic carcinoma, hypothyroidism, pituitary)
- Hyperuricaemia: primary and secondary (including haematological and drug-induced causes) and its associations with obesity, diabetes, hypertension and dyslipidaemia

- Hypothalamic causes of hormonal disturbances (for example, hyperprolactinaemia, drug-induced)
- Inherited metabolic diseases (such as phenylketonuria, glycogen storage diseases, porphyrias)
- Metabolic causes of unconsciousness (for example, hypoglycaemia, diabetic ketoacidosis, hyponatraemia, hypothyroidism, adrenal insufficiency)
- NAFLD, including its associations with diabetes, obesity and metabolic syndrome, and its consequences
- Osteoporosis
- Being overweight or living with obesity:
    - assessment using parameters such as body mass index (BMI) and waist:height ratio. Interpret (including adjustment for specific ethnicities) and recognise limitations of these methods
    - health consequences of obesity (including increased morbidity and reduced life expectancy)
    - health promotion advice (including nutrition, smoking cessation and physical activity)
    - pharmacological therapies for weight management
    - risks and benefits of bariatric surgery
    - direct and indirect impact of obesity on a wide range of diseases
    - pituitary diseases, including acromegaly, primary and secondary hypopituitarism, and diabetes insipidus
- Poisoning (deliberate or unintentional), including by food, drugs (prescribed, over-the-counter or non-medicinal) or other chemicals
- Polycystic ovary syndrome (see also the *Gynaecology and breast health* topic guide)
- Psychogenic polydipsia
- Replacement and therapeutic intervention steroid therapy
- Thyroid diseases, including goitre, hypothyroidism, hyperthyroidism, benign and malignant tumours, thyroid eye disease, thyroiditis, neonatal hyperthyroidism and hypothyroidism:
    - antibody testing, thyroxine replacement therapy and monitoring
    - associations with other conditions, including cardiovascular disease
    - potential for thyroxine abuse and strategies to reduce dosage
- Vitamin D deficiency, including its causes, health consequences and complications, testing and replacement therapy

Examinations and procedures

- Relevant focused examinations to identify features of common and important metabolic and endocrine conditions, underlying causes, manifestations of disease progression and associated conditions
- Specific examinations (such as assessment of neuropathy in diabetes, examination of a neck lump, visual field testing)

Investigations

- Common primary care tests to investigate and monitor metabolic and endocrine disease (for example, fasting blood glucose, HbA1c, urinalysis, urine albumin: creatinine ratio, 'near-patient testing' (point-of-care testing), lipid profile, thyroid function tests and uric acid)
- Other laboratory investigations, such as renal, liver, pancreatic, adrenal, pituitary, hypothalamic, ovarian and testicular function, antibody tests (for example, glutamic acid decarboxylase (GAD), thyroid antibodies)
- Normal biochemical parameters for common laboratory tests of metabolic and endocrine disease
- Imaging (such as a dual energy X-ray absorptiometry (DEXA) scan and interpretation) and tests of endocrine and metabolic dynamic function
- Screening of asymptomatic individuals to diagnose metabolic conditions (such as diabetes and pre-diabetes)

Service issues

- Screening tools and prevention programmes for conditions such as diabetes and osteoporosis
- Safe prescribing and medicines management, including approaches to polypharmacy, non-concordance with treatment and insulin therapy, and in women of childbearing age
- Early recognition, monitoring and evidence-based management of comorbidities, complications and cardiovascular risk in patients with conditions such as diabetes, obesity and thyroid disease
- Systems of care for people with metabolic or endocrine conditions, including primary and secondary care, voluntary sector organisations, shared care arrangements, multidisciplinary teams, patient involvement and structured education programmes
- Technology to improve practice and support collaborative care planning for people with long-term endocrine or metabolic conditions
- Key national policy documents influencing healthcare provision for people with metabolic or endocrine conditions
- Prescription charge exemptions for patients with certain conditions
- Population-based health interventions (such as exercise on prescription)

Additional important content

- Key guidance, for example from the National Institute for Health and Care Excellence (NICE) and Scottish Intercollegiate Guidelines Network (SIGN), and research findings (such as the UK Prospective Diabetes Study (UKPDS)) influencing the management of metabolic and endocrine conditions
- Associations between autoimmune diseases (such as diabetes, coeliac and thyroid diseases)

- Rare secondary causes of diabetes and thyroid disease (such as pancreatic disease, amyloid)
- ‘Sick day rules’ (for example, in diabetes, adrenal insufficiency)
- Genetic and environmental factors (such as ethnicity, lifestyle, social inequalities) affecting prevalence and outcomes in conditions such as diabetes
- Lifestyle interventions (including social prescribing) for conditions such as obesity, diabetes mellitus, hyperlipidaemia and hyperuricaemia
- Behaviour change consultation tools, such as motivational interviewing and Very Brief Advice (VBA) for smoking cessation
- Risk–benefit conversations with patients (including risks of complications)
- Risk calculation tools (for example, QRISK, QDiabetes)
- Psychosocial impact of long-term metabolic conditions on individuals and their wider social networks, such as the risk of depression and other mental health problems, sexual dysfunction, impact on employment and driving (including Driver and Vehicle Licensing Agency (DVLA) guidance)
- Indications for referral to an endocrinologist, metabolic medicine or other specialist

Case discussion

Charlotte Jones is 46 years old and has a BMI of 36. Despite numerous diets over the years, she has never managed to achieve sustained weight loss. She has a history of hypertension, hyperlipidaemia and type 2 diabetes mellitus that was diagnosed three years ago. Annual checks have identified background retinopathy but no evidence of nephropathy or neuropathy. Six months ago, she was started on insulin by the diabetes specialist team as her glycaemic control was poor on maximum oral hypoglycaemic therapy and she was due to undergo a cholecystectomy.

Unfortunately, her glycaemic control as measured by HbA1c has deteriorated further since starting insulin. Her blood pressure, cholesterol and triglycerides are elevated, and her weight has increased by 3kg over the last six months.

Charlotte is a single parent to two young children. She also looks after her elderly parents and works full time at a local bank. She has stopped driving, which she says is making life more stressful. You are concerned that she is not prioritising her health or coping with insulin injections.

Questions

These questions are provided to prompt you to consider the key points of the case. They can form the basis for a case discussion with your educational supervisor and will assist you in writing reflective entries in your ePortfolio. The questions are examples to trigger reflection and are not intended to be comprehensive.

Core capabilities	Questions
Fitness to practise This is about professionalism and the actions expected to protect people from harm. This includes the awareness of when an individual's performance, conduct or health, or that of others, might put patients, themselves or their colleagues at risk.	What are my own views about people who are overweight or living with obesity? How might my own views and societal attitudes to obesity influence how I care for patients who are overweight? What is unconscious bias?
An ethical approach This is about practising ethically with integrity and a respect for equality and diversity.	How would I explain to Charlotte the risks of complications from obesity or diabetes? Is there a risk of understatement or overstatement? What factors might influence this? As Charlotte's GP, what is my legal responsibility in relation to her fitness to drive with diabetes? What is the General Medical Council (GMC) advice? What ethical issues may arise when sharing information within a multidisciplinary team?
Communicating and consulting This is about communication with patients, the use of recognised consultation techniques, establishing and maintaining patient partnerships, managing challenging consultations, third-party consulting, the use of interpreters and consulting modalities across the range of in-person and remote methods.	Have I explored Charlotte's ideas, concerns and expectations? How can I communicate my concerns about her health? How could I approach health promotion in this case, or if the patient were a child, adolescent, pregnant or from an ethnic minority?

Data gathering and interpretation This is about the gathering, interpretation, and use of data for clinical judgement, including information gathered from the history, clinical records, examination and investigations.	What potential emergencies may arise in this situation? How would I recognise a diabetic emergency? Does my GP practice have the appropriate equipment to diagnose and manage diabetic emergencies? What factors may affect the validity of an HbA1c value?
Clinical examination and procedural skills This is about clinical examination and procedural skills. By the end of training, the GP registrar must have demonstrated competence in general and systemic examinations of all the clinical curriculum areas, including the five mandatory examinations and a range of skills relevant to general practice.	What clinical signs might I find in someone with poorly controlled diabetes? How confident am I in examining for diabetic neuropathy? Do I know how to use the blood glucose monitors and ketone meters in my practice?
Decision-making and diagnosis This is about having a conscious, organised approach to making diagnosis and decisions that are tailored to the particular circumstances in which they are required	Why might Charlotte's glycaemic control have deteriorated? How would I assess Charlotte's cardiovascular risk? What else would I need to know to do this? How confident am I in giving nutritional advice, prescribing and altering medications in the care of diabetic patients?
Clinical management This is about the recognition and a generalist's management of patients' problems.	How can I demonstrate my ability to act as a team leader in this case? What drug and non-drug approaches might be used in this case? What factors might influence whether drug or non-drug management is used?

Medical complexity This is about aspects of care beyond the acute problem, including the management of comorbidity, uncertainty, risk and health promotion.	How would I explain to Charlotte the importance of managing her blood glucose, blood pressure, lipids and weight? What do I know about the benefits and harms of tight glucose control in diabetes? What targets should be aimed for in this case? How will I decide?
Team working This is about working effectively with others to ensure good patient care and includes sharing information with colleagues and using the skills of a multiprofessional team.	Which other professionals should be involved in this case? How do I liaise with them? How are diabetic patients managed in my practice? Who follows them up? What are the shared care protocols? How will I know whether Charlotte has attended her retinopathy screening or podiatry appointments?
Performance, learning and teaching This is about maintaining the performance and effective CPD of oneself and others. The evidence for these activities should be shared in a timely manner within the portfolio.	What is the evidence base for current glycaemic, lipid and blood pressure targets in diabetes? What are the key national guidelines, frameworks, recommendations or quality standards relevant to this case (including the management of cardiovascular disease)? What is the guidance on diabetes management during Ramadan?
Organisation, management and leadership This is about understanding how primary care is organised within the NHS, how teams are managed and the development of clinical leadership skills.	How would I audit the diabetic care in my practice? What standards and criteria would I use, and why? How would I use disease registers and data-recording templates in my practice to monitor diabetic patients and ensure continuity of care between primary care and other services? How does the practice receive and act on test results or feedback from secondary care?

Holistic practice, health promotion and safeguarding This is about the ability of the doctor to operate in physical, psychological, socio-economic and cultural dimensions. The doctor is able to take into account the patient's feelings and opinions. The doctor encourages health improvement, self-management, preventative medicine and shared care planning with patients and their carers. The doctor has the skills and knowledge to consider and take appropriate safeguarding actions.	What psychological, socio-economic and cultural factors might influence the health of this patient? Why? What questions should I ask to ascertain this? What barriers to good health care might Charlotte face (a) within the consultation and (b) more generally? How might the issues in this case impact on Charlotte's family?
Community health and environmental sustainability This is about the management of the health and social care of the practice population and local community. It incorporates an understanding of the interconnectedness of health of populations and the planet.	What is the local strategic approach to tackling obesity in my area, including non-NHS partners? What local, national and international public health interventions am I aware of to tackle obesity? What local initiatives exist to tackle health inequalities among people with conditions such as diabetes? What non-NHS organisations do I know of that might be relevant to this case?

How to learn this area of practice

Work-based learning

Primary care is where the vast majority of patients with metabolic conditions present and are managed. Particular areas of learning in this setting include: prevention and risk factor management, communication and consultation tools to help people change health behaviours; acute and emergency management of metabolic problems; and chronic disease management, including surveillance for and early diagnosis of complications. Some GP practices offer more specialised services in diabetes or obesity. Other arrangements may include intermediate diabetes care clinics. You will find it beneficial to attend some sessions.

Placements with acute diabetes or endocrinology specialists give GP registrars exposure to patients with serious metabolic or endocrine problems in the acute setting. Most specialist care is, however, provided in outpatient clinics and you should take the opportunity to attend specialist diabetes, endocrine and obesity clinics when working in other hospital posts and during your GP placements. This experience will enable you to

learn about patients with uncommon but important metabolic or endocrine conditions (such as Addison's disease and hypopituitarism), as well as about patients with complex needs or with complications of the more common metabolic conditions.

Particular areas of learning include: how to recognise metabolic or endocrine disorders that may be life-threatening if missed; which types of patient are best followed up by a specialist team; and when patients usually managed in primary care should be referred to a specialist team, including the timing and route of such referrals.

Self-directed learning

You can find an eLearning module(s) relevant to this topic guide at elearning for healthcare and on the RCGP's eLearning website.

Learning with other healthcare professionals

Achieving good outcomes in the management of chronic metabolic conditions such as diabetes requires well-organised and coordinated services that draw on the knowledge and skills of health and social care professionals. As a GP registrar you should attend nurse-led diabetes annual review assessments and participate in the follow-up of diabetic and other patients with metabolic or endocrine disease in primary care. You should take the opportunity to sit in with colleagues such as specialist diabetes or obesity nurses, dieticians and psychologists.

Structured learning

Some higher education institutions provide postgraduate certificate courses in diabetes, nutrition or metabolic problems. RCGP resources on diabetes, obesity and nutrition – including further qualifications – can be found in the learning and resources section of its website.

Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- Drug management of type 2 diabetes
- Interpreting common electrolyte results
- Investigation of hypercalcaemia

Simulated Consultation Assessment (SCA)

- An airline pilot with type 2 diabetes is on maximum oral hypoglycaemic drugs and has an increasing HbA1c that is now 68 mmol/mol

- A young woman living with obesity is struggling to lose weight having tried a variety of different diets. Her recent blood results (provided) suggest polycystic ovary syndrome (PCOS)
- A middle-aged man attends to discuss a recent scan, arranged after blood tests showed mildly abnormal liver functions. The scan shows fatty infiltration of the liver

Workplace-based Assessment (WPBA)

- Consultation Observation Tool (COT) about a woman requesting levothyroxine to lose weight despite normal thyroid function
- Log entry about observing a patient being taught how to start insulin
- Clinical examination and procedural skills (CEPS) on examining a diabetic patient with neuropathy

Musculoskeletal health

About this topic guide

This topic guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you understand important issues relating to musculoskeletal health by illustrating the key learning points with a case scenario and questions. It also contains tips and advice for learning, assessment and continuing professional development (CPD), including guidance on the knowledge relevant to this area of general practice.

Each topic guide is intended to illustrate important aspects of everyday general practice, rather than provide a comprehensive overview of each clinical topic. It should therefore be considered in conjunction with other topic guides and educational resources.

The role of the GP in the care of people with musculoskeletal problems

Musculoskeletal problems constitute a significant proportion of GP consultations. As a GP, your role is to:

- advise appropriately to support the self-care and prevention of problems
- intervene urgently when patients present with emergencies or 'red flag' symptoms
- coordinate care with other health professionals, leading to effective and appropriate acute and chronic management. Care of patients with musculoskeletal problems will often involve GPs working closely with specialists in orthopaedics, rheumatology and pain medicine as well as with allied health disciplines such as physiotherapy
- coordinate the holistic care of complex patients presenting with symptoms affecting the musculoskeletal system
- communicate effectively, taking into account the psychosocial impact of musculoskeletal problems on the patient, their family, friends, dependants and employers. People who experience chronic pain often have comorbid psychological diagnoses and may require a multidisciplinary approach.

Emerging issues in the care of people with musculoskeletal problems

- People are living longer and remaining active for longer, therefore musculoskeletal problems are presenting to general practice more frequently. More people than before are having their joints injected, replaced or resurfaced, often in advanced years, due to improvements in medical technology and surgical expertise. At the same time, younger patients experiencing musculoskeletal problems as a result of multisystem disorders (such as rheumatoid arthritis) have

more medical and surgical options available than in the past and many have shared care with GPs.
- Musculoskeletal conditions are a common cause of severe long-term pain and physical disability and are major causes for work limitation and early retirement.
- In cases of suspected inflammatory arthritis, urgent referral to a rheumatologist can significantly improve outcomes for patients in both the short and long term.
- The longer waiting lists for musculoskeletal surgery exacerbated by Covid-19, and the move to remote consultations for some services such as physiotherapy, mean GPs have an increasing role in managing the biopsychosocial impacts, which may include inequity of access and preventable symptomatic decline.
- There is an increasing place for managing patients with a lifestyle management approach, including discussion about nutrition and physical activity .

Knowledge and skills guide

For the care of people with musculoskeletal problems, consider the following areas within the general context of primary care:

- the natural history of the condition, including whether acute or chronic
- the incidence and prevalence, including in different demographic groups
- typical and atypical presentations
- recognition of normal variations throughout life
- fracture prevention and use of tools to assess fracture risk
- risk factors, including lifestyle, socio-economic and genetic factors
- diagnostic features and differential diagnosis
- recognition of ‘alarm’ or ‘red flag’ features
- appropriate and relevant investigations
- interpretation of test results
- management, including initial and continuing care, chronic disease monitoring and emergency care
- patient and carer information and education, including self-care
- prognosis.

Symptoms and signs

- Extra-articular symptoms associated with musculoskeletal disease (such as skin, eye and gastrointestinal manifestations)
- Falls and trauma
- Joint pain, stiffness, swelling, deformity, redness (including individual joints such as back and neck, jaw, hip, knee, ankle, foot, shoulder, elbow, wrist or hand, or generalised)
- Lumps and deformities of bone, joint or soft tissue
- Muscle pain and weakness

Common and important conditions

- Avascular necrosis
- Bone cancers, including metastatic disease
- Chronic pain
- Congenital or inherited diseases such as osteogenesis imperfecta, Marfan syndrome, Ehlers-Danlos syndrome, Gaucher disease, hypermobility syndromes
- Crystal arthropathies
- Foot disorders such as plantar fasciitis, digital neuroma
- Fractures, dislocations and significant soft tissue trauma
- Hand disorders such as trigger finger, Dupuytren's contracture, carpal tunnel syndrome, ulnar nerve compression
- Infection such as septic arthritis and osteomyelitis
- Inflammatory arthropathies (sero-positive and sero-negative)
- Lymphoedema
- Muscle disorders such as polymyalgia rheumatica and muscular dystrophies
- Osteoarthritis
- Osteoporosis
- Skeletal problems including disorders of calcium homeostasis such as osteomalacia, rickets and Paget's disease (see also the *Metabolic problems and endocrinology* topic guide)
- Soft tissue disorders such as bursitis, epicondylitis and Achilles tendon problems
- Spinal disorders, including mechanical back pain, disc lesions, malignancy (primary or metastatic) and cervical spinal disorders
- Wounds and lacerations

Examinations and procedures

- Examinations: functional assessment, examination of back and spine, joint examinations, systemic manifestation of musculoskeletal problems, exclusion of red flags, screening examinations
- Procedures: knowledge of the appropriate use of steroid injections and joint aspiration (although the ability to perform these is not essential)

Investigations

- Investigations: blood tests, X-rays, joint aspirate analysis, computed tomography (CT) and magnetic resonance imaging (MRI) scans, dual energy X-ray absorptiometry (DEXA) scans, bone scans, ultrasound, biochemical and immunological indicators of musculoskeletal problems, nerve conduction studies, tissue biopsy, scoring systems such as FRAX (fracture risk assessment tool)

Service issues

- Variability of local service provision for musculoskeletal problems

- Service provision for veterans
- Practice policies for supporting staff and patients with musculoskeletal problems, including creating a healthy workplace

Case discussion

Jasmine Cruz, a 32-year-old care assistant in a local residential home, presents with worsening lower back pain over the past month. The pain is confined to her back and does not radiate down her leg. She dates the pain to an episode where she had to lift a patient off the floor unassisted. She offers the information that staff absence rates in her workplace have been high recently – there are not enough people around to help with manual handling.

On questioning, Jasmine says her appetite and weight have been steady, but she has started to feel a bit low and gets increasingly tired towards the end of the day. She has had episodes of back pain in the past, but it has never lasted this long. She lives in a shared house and her family are in the Philippines and rely on the money she sends home to them each month. She is concerned she might be developing a long-term problem that will make her work difficult.

On examination, she looks generally well and is moderately overweight. There is some curvature in the lower spine that disappears when she bends down to touch her toes – she can almost reach her toes but slowly and with some difficulty.

You advise her about work and physical activity and provide an advice leaflet explaining the simple messages around back pain and how to protect the back when lifting and doing heavy work. You suggest that she tries to lose some weight with the objective of reducing the strain on her back. You recommend simple but regular analgesics, especially at night, and provide 'safety-netting' advice.

Questions

These questions are provided to prompt you to consider the key points of the case. They can form the basis for a case-based discussion with your educational supervisor and will assist you in writing reflective entries in your ePortfolio. The questions are examples to trigger reflection and are not intended to be comprehensive.

Core capabilities	Questions
Fitness to practise This is about professionalism and the actions expected to protect people from harm. This includes the awareness of when an individual's performance, conduct or health, or that of others, might put patients, themselves or their colleagues at risk.	General practice can be quite a sedentary profession. How do I look after my own musculoskeletal health? What is my own attitude towards people who I believe are falsifying or exaggerating their musculoskeletal symptoms?
An ethical approach This is about practising ethically with integrity and a respect for equality and diversity.	What further information would prompt me to raise concerns about the local residential home? Who would I raise any concerns with? How would I express my concerns?
Communicating and consulting This is about communication with patients, the use of recognised consultation techniques, establishing and maintaining patient partnerships, managing challenging consultations, third-party consulting, the use of interpreters and consulting modalities across the range of in-person and remote methods.	How might I negotiate any conflict over time off work (for example, if Jasmine requests 'a sick note for a few weeks until I feel better')? What questions would I ask to explore Jasmine's agenda, health beliefs and preferences? How might I help Jasmine to develop her own motivation to lose weight?
Data gathering and interpretation This is about the gathering, interpretation and use of data for clinical judgement, including information gathered from the history, clinical records, examination and investigations.	What aspects of Jasmine's case cause me concern? What is the likely prognosis? Would investigations be useful? If so, which ones?

Clinical examination and procedural skills This is about clinical examination and procedural skills. By the end of training, the GP registrar must have demonstrated competence in general and systemic examinations of all the clinical curriculum areas, including the five mandatory examinations and a range of skills relevant to general practice.	What clinical signs might identify back pain with serious pathology? How might I distinguish mechanical lower back pain from nerve root pain?
Decision-making and diagnosis This is about having a conscious, organised approach to making diagnosis and decisions that are tailored to the particular circumstances in which they are required.	What are the differential diagnoses for Jasmine's symptoms? What is the diagnosis likely to be? What tools (such as scoring systems) are available to assess potential chronicity in back pain? How might I use time as a diagnostic tool?
Clinical management This is about the recognition and a generalist's management of patients' problems.	What options do I have in treating this problem? What follow-up arrangements would I make?
Medical complexity This is about aspects of care beyond the acute problem, including the management of comorbidity, uncertainty, risk and health promotion.	How would I communicate risk, and involve Jasmine in its management to an appropriate degree? What do I know about methods for helping patients to improve lifestyle factors?
Team working This is about working effectively with others to ensure good patient care and includes sharing information with colleagues and using the skills of a multiprofessional team.	Who else might be involved in the management of Jasmine's back pain (for example, physiotherapy, a chiropractor)? Do I know how to get advice from colleagues outside the primary health care team before referral? What sources of advice do I have within the practice?

Performance, learning and teaching This is about maintaining the performance and effective CPD of oneself and others. The evidence for these activities should be shared in a timely manner within the portfolio.	What barriers might I face in providing the 'best' care for my patients as defined by national guidelines? What tools are available to stratify those at risk of developing chronic low back pain? What online resources are available that would help me to understand more about Jasmine's condition?
Organisation, management and leadership This is about understanding how primary care is organised within the NHS, how teams are managed and the development of clinical leadership skills.	What would be the key points of this consultation that should go in the patient's record? Which clinical code would I use for this consultation? Are there any online resources that I could share with Jasmine?
Holistic practice, health promotion and safeguarding This is about the ability of the doctor to operate in physical, psychological, socio-economic and cultural dimensions. The doctor is able to take into account the patient's feelings and opinions. The doctor encourages health improvement, self-management, preventative medicine and shared care planning with patients and their carers. The doctor has the skills and knowledge to consider and take appropriate safeguarding actions.	What would help Jasmine to stay at work? What are the implications (personal and societal) for sickness absence due to problems like chronic low back pain? What self-care and health promotion advice might I provide to Jasmine on this occasion? What steps could I take to facilitate continuity of care for Jasmine? How might cultural beliefs be relevant in this case?
Community health and environmental sustainability This is about the management of the health and social care of the practice population and local community. It incorporates an understanding of the interconnectedness of health of populations and the planet.	What are the advantages of a local back pain service? What other options are there for managing musculoskeletal disease in the community? What provision might my practice make for patients and staff with musculoskeletal disorders?

How to learn this area of practice

Work-based learning

You will have no shortage of clinical exposure to musculoskeletal problems during your time as a GP registrar. You will see a wide range of conditions and it is worth keeping a log of these cases to demonstrate that, with experience, you are becoming confident in managing the conditions.

Musculoskeletal problems offer the opportunity for you to develop clinical skills and reflect on the use of investigations in managing uncertainty and complexity. There are national guidelines and standards of care that can be used to improve outcomes for musculoskeletal patients. Take the opportunity to reflect on the care that you deliver, using tools such as audits, quality improvement projects and reviews of referral activity and use of investigations.

The first contact with a patient is crucial and one of the great things about general practice is the ability to use time as a diagnostic tool. Following up your patients can provide a very useful insight into the natural course of musculoskeletal problems and give valuable clues in the clinical conundrums we all face.

Few GP registrars will get significant exposure to a core musculoskeletal speciality during their time in hospital attachments but many of the patients you will see during your training, especially older adults, will have significant musculoskeletal problems. Take time for a focused examination of a painful joint, and ask about mobility issues, work problems and function around the home, to get a feel for the impact that musculoskeletal conditions can have on the individual. Remember to consider the psychosocial impact of musculoskeletal problems too.

Try to spend some time with specialist nurses and pharmacists engaged in shared care prescribing of disease-modifying anti-rheumatic drugs (DMARDs). Can you think of some of the benefits and potential pitfalls of shared care prescribing? What issues do the nursing team have? How are problems communicated to all involved? Think how you would, as a GP, ensure a safe service for your patients in the community.

Consider attending an orthopaedic clinic and explore the decision to undertake a joint replacement for osteoarthritis. What factors influenced the decision? Were they the same factors for each patient you saw? Were patient decision aids being used?

Many areas have ‘interface’ or ‘tier 2’ musculoskeletal services in the community or hospital setting. GPs with an Extended Role (GPwER) or first contact physiotherapists who work in these services will be able to help you improve your clinical skills, and the patients are a rich resource of common musculoskeletal problems.

Time spent in a local chronic pain service can give a valuable insight into the multidisciplinary approach to managing patients with chronic musculoskeletal and other

pain. Pause to reflect on the barriers that patients face to getting back to normal functional levels and also the factors that may have contributed to the development of chronic problems. Were there missed opportunities to address their problems earlier – perhaps preventing progression to a more chronic problem?

Self-directed learning

It is highly unlikely that you will go through the duration of your specialist training and not experience musculoskeletal aches and pains of one sort or other, from the minor through to the more significant. Perhaps you are involved in sport and have noticed some new ache or pain when you are training. How does it make you feel? Are you worried that the pain would get worse? What if you can't do the things you enjoy? What about work? How would you cope if your pain and disability prevented you following your chosen career path?

Reflecting on such issues provides a valuable insight into how your patients may be feeling when they come to see you. Asking about such worries forms part of the thorough assessment of a patient. If you do not address these concerns, you are less likely to help that person and may miss acting on cues that could prevent the patient from developing a chronic problem.

Learning with other healthcare professionals

Patients may seek advice and treatment from a wide range of other professionals and therapists. As a GP, it is important to gain an understanding of what these practitioners do, and whether the treatment they provide is supported by an evidence base, to advise your patients appropriately.

It is important to understand the role of other registered healthcare professionals involved in musculoskeletal care, to see how their methods differ from yours. These healthcare professionals offer a wide range of interventions and treatments. In particular, time spent with physiotherapists can help improve your assessment and examination skills and enhance your understanding of what patients should expect when they see these professionals.

Other members of the practice team, including nurses and healthcare assistants, spend a lot of time with patients with chronic diseases. They have valuable insights into how patients are getting along. Find out if their assessment includes asking patients about pain and level of function and which validated tools can be used to measure this.

Carers, both professional and informal, may be the best-placed individuals to inform you how a person is coping at home and in the community. You often get a very limited view of the stoical patient within the confines of the surgery.

All GPs have a role in advising patients about fitness for work. How this advice is communicated has a significant effect on the future of that individual's working life.

Discussion with occupational health physicians involved in Department for Work and Pensions Work Capability Assessments can help you understand how decisions regarding work fitness are made and how you as a GP can facilitate patients to stay in work, for example by delivering a consistent message around back pain.

Structured learning

There are many eLearning resources available and RCGP eLearning has a module on musculoskeletal care.

Look out for core musculoskeletal skills courses aimed at GPs that offer the opportunity to develop your consultation and examination skills, as well as keeping you up to date with the latest evidence and opinion on best practice. You may also consider attending courses offering joint injection training.

Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- Risk factors for osteoporosis
- Differential diagnosis of musculoskeletal pain
- Recognition of acute inflammatory arthritis

Simulated Consultation Assessment (SCA)

- A sight-impaired man is training for a charity marathon and has developed pain in his outer thigh
- An elderly man has had persistent low back pain for six weeks, which is keeping him awake
- A teenage boy has had intermittent groin and knee pain for two months and, after a fall playing football yesterday, is limping when trying to walk

Workplace-based Assessment (WPBA)

- Consultation Observation Tool (COT) about the diagnosis of fibromyalgia in a woman with persistent, widespread joint pains with normal investigation
- Clinical examination and procedural skills (CEPS) – musculoskeletal, such as on a swollen joint
- Case-based Discussion (CbD) discussing a patent who has been started on methotrexate by a specialist for rheumatoid arthritis and the need for blood test monitoring in primary care

Neurodevelopmental conditions and neurodiversity

About this topic guide

This topic guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you understand important issues relating to the care of people with neurodevelopmental and neurodivergent conditions by illustrating the key learning points with a case scenario and questions. It also contains tips and advice for learning, assessment and continuing professional development (CPD), including guidance on the knowledge relevant to this area of general practice.

Each topic guide is intended to illustrate important aspects of everyday general practice, rather than provide a comprehensive overview of each clinical topic. It should therefore be considered in conjunction with other topic guides and educational resources.

The role of the GP in the care of people with neurodevelopmental and neurodivergent conditions

The International Classification of Diseases (ICD-11) lists a number of conditions under 'neurodevelopmental disorders' that are typically considered to be those differences in neurological development with onset before the age of 18.

The term 'neurodiversity' encompasses the whole spectrum of cognitive experience, encompassing both neurotypical and neurodivergent people. Neurodivergence has evolved as a preferred umbrella term and encompasses those people who may interpret and process information in qualitatively different ways. It is important to recognise that many people who are neurodivergent do not consider themselves to be 'disordered' or disabled, although it is important to acknowledge the disabling effect of their condition on their quality of life. Many people may not be aware that their difficulties may be as a result of underlying neurodivergence or may have an awareness but be anxious about disclosing due to societal stigma.

It is thought 15-20% of the population are neurodivergent. Conditions under the neurodivergent umbrella include:

- attention deficit hyperactivity disorder (ADHD)
- autism
- developmental co-ordination disorder
- developmental language disorder
- tic disorders and Tourette's syndrome
- learning disability
- specific learning difficulties, including dyslexia and dyscalculia.

GPs play a crucial role in the following:

- Early identification and intervention: timely recognition of neurodisability and neurodivergence by GPs facilitates early intervention, ensuring that individuals receive appropriate support and treatment. This proactive approach not only allows for access to necessary resources but also has the potential to improve outcomes in academic, social and occupational domains as well as improving quality of life.
- Preventing misdiagnosis or delayed diagnosis: neurodivergent individuals are sometimes mislabelled as having other conditions such as bipolar disorder or personality disorder. Recognising neurodivergence allows GPs to identify and support patients appropriately and help manage any co-occurring conditions more effectively.
- Addressing comorbidities: neurodivergent conditions often overlap and may also coexist with other symptoms such as anxiety or depression. GPs can help to differentiate between these conditions.
- Educating patients and families: GPs can play a pivotal role in supporting and educating neurodivergent patients and their families as well as signposting to additional sources of support. Educated families are more able to support the neurodivergent individual, contributing to improved physical and mental wellbeing.
- Promoting public awareness: as primary healthcare providers, GPs can contribute to raising awareness about neurodivergence within the community. This awareness can reduce stigma and encourage individuals experiencing symptoms to seek help, which may benefit the overall mental health of the population.
- Optimising healthcare resources: timely recognition of neurodisability and neurodivergence by GPs helps in optimising healthcare resources by directing appropriate referrals, reducing unnecessary investigations and prescribing, and ensuring efficient use of mental health and other services.

Knowledge and skills guide

For each problem or disease, consider the following areas within the general context of primary care.

A GP should:

- gather comprehensive medical and behavioural histories to better understand the individual's symptoms and challenges
- develop personalised, evidence-based treatment plans that may include a combination of behavioural interventions, psychoeducation, counselling, and medication management;
- work closely with patients and their families to tailor the treatment plan to their specific needs, preferences, and circumstances;

- suggest appropriate behavioural strategies and lifestyle recommendations including advice on organisation, time management, sleep hygiene, and the benefits of exercise and a healthy diet;
- work with other health professionals to support patients, facilitating communication and collaboration among the various professionals involved in care and acting as a central coordinator of care to ensure a holistic approach;
- where appropriate, familiarise themselves with medications for particular conditions, such as Tourette's, autism or ADHD, especially side effects and monitoring, and prescribe safely where appropriate.

Symptoms and signs

GPs should be able to recognise the following:

- behavioural problems as an indication of underlying difficulties. These may include neurodivergence with struggles with executive function but may also include underlying problems such as pain, illness or abuse
- delayed or altered development in children
  difficulties with communication, social relationships or managing daily affairs, such as chaotic organisation, missed or multiple non-attendance at appointments, or poor compliance with medication
- difficulties processing sensory information, including the perception of pain, interoception and proprioception
- depression, anxiety or eating disorders may indicate an underlying neurodivergence
- physical symptoms relating to connective tissue disorders, such as hypermobility, Ehlers-Danlos syndrome and dysautonomia, as well as 'functional' conditions such as chronic fatigue and fibromyalgia, may be an indicator of underlying neurodivergence
- persistent restricted, repetitive and inflexible patterns of behaviour, interests or activities
- difficulties with processing emotions and with emotional regulation, such as hyperreactivity and anger
- atypical presentation of psychiatric or physical illness because of sensory, communication and cognitive difficulties and poor response to treatment
- the concept of diagnostic overshadowing, that is, when a person's presenting symptoms are attributed to the neurodisability rather than another, potentially treatable cause, or vice versa
- substance misuse, homelessness, sexual abuse, trauma and prison incarceration are all higher in patients with neurodivergence
- presentation of patients may occur when strategies for compensation fail, such as during transitions.

Common and important conditions and co-occurring conditions

- ADHD
- Autism
- Developmental co-ordination disorder
- Developmental language disorder
- Tic disorders and Tourette's syndrome
- Learning disability
- Specific learning difficulties, including dyslexia and dyscalculia

Common associated physical health disorders include but are not limited to:

- cardiovascular disease
- epilepsy
- oropharyngeal and gastrointestinal disorders
- respiratory disorders
- sleep disorders
- visual, speech, hearing and mobility problems
- hypermobility spectrum disorder and Ehlers-Danlos syndrome
- postural tachycardia syndrome (PoTS) and dysautonomia
- chronic pain and fibromyalgia
- obstructive sleep apnoea (OSA)
- migraine.

Common associated mental health problems (which may present differently from the general population) include:

- anxiety and depression
- bereavement reactions
- bipolar affective disorder
- schizophrenia
- specific associations (for example, autism spectrum disorder and ADHD are linked).

Examinations and procedures

- Tailored physical and mental state assessments in neurodivergent patients, recognising that they may be unable to verbalise or describe symptoms typically
- Screening tools and questionnaires for neurodevelopmental conditions

Investigations

- Physical health checks such as blood pressure
- Appropriate blood tests to rule out an alternative underlying cause
- Electrocardiogram (ECG) interpretation

Service issues

- Understanding the local services and waiting lists
- Understanding the role of schools especially the role of the special educational needs coordinator (SENCO) (additional learning needs coordinator (ALNCO) in Wales)
- Consultation skills to match the needs of service users (such as adapting language and consultation techniques, using advocates or carers with communication expertise, and other communication aids)
- Reasonable adjustments to accommodate neurodiversity in primary care (such as recognising communication differences or sensitivities in sensory processing)
- Annual health checks:
    - identification, management and referral of common associated physical conditions (for example, epilepsy, diabetes)
    - health promotion including sexual health, contraception, cardiovascular disease risks, cancer screening and smoking cessation
- Safe prescribing and management of polypharmacy
- Specialist services to diagnose, assess and support neurodivergent patients
- Support for adolescents transitioning from paediatric to adult care

Case discussion

Sally Doherty is 23 years old. She comes to see you as she is really struggling with her mental health and feels she is ‘useless’. She is in her first year of a law degree but feels she is an ‘imposter’. She struggles to get to lectures on time. She cannot motivate herself to get started on anything and can sit and scroll on her phone for hours. She only ever seems to get the energy to do an assignment the night before it is due and only then once she has procrastinated with other tasks, such as cleaning her kitchen or baking a cake. She is disorganised and keeps missing lectures or arriving late. You note that she has visited the practice on a previous occasion, requesting a letter to defer her exams due to ‘low mood’. She has been following content creators on TikTok and identifies with their descriptions of what it is like to have ADHD.

You ask Sally about her general health and she mentions that she is dyslexic. She also has had difficulties with constipation since birth. You note that she was referred to a podiatrist when she was younger and was prescribed an orthotic for ankle support.

Questions

These questions are provided to prompt you to consider the key points of the case. They can form the basis for a case-based discussion with your educational supervisor and will assist you in writing reflective entries in your ePortfolio. The questions are examples to trigger reflection and are not intended to be comprehensive.

Core capabilities	Questions
Fitness to practise This is about professionalism and the actions expected to protect people from harm. This includes the awareness of when an individual's performance, conduct or health, or that of others, might put patients, themselves or their colleagues at risk.	What are my beliefs and assumptions about neurodivergent conditions? Might they impact on my interaction with Sally? Do I have personal experience of neurodivergent conditions? Might these impact on my management of Sally?
An ethical approach This is about practising ethically with integrity and a respect for equality and diversity.	How would I ensure Sally has equitable access to healthcare, including making follow-up appointments?
Communicating and consulting This is about communication with patients, the use of recognised consultation techniques, establishing and maintaining patient partnerships, managing challenging consultations, third-party consulting, the use of interpreters and consulting modalities across the range of in-person and remote methods.	What are the challenges in obtaining a history of ADHD? How might I optimise or adjust communication with Sally?
Data gathering and interpretation This is about the gathering, interpretation and use of data for clinical judgement, including information gathered from the history, clinical records, examination and investigations.	What other sources of information might be helpful in diagnosing Sally? What further investigations and tests are indicated?
Clinical examination and procedural skills This is about clinical examination and procedural skills. By the end of training, the GP registrar must have demonstrated competence in general and systemic examinations of all the clinical curriculum areas, including the five mandatory examinations and a range of skills relevant to general practice.	What physical examinations should be performed, and why? Are any initial bedside tests indicated? What further investigations might I arrange?

Decision-making and diagnosis This is about having a conscious, organised approach to making diagnosis and decisions that are tailored to the particular circumstances in which they are required.	Sally identifies her symptoms as being in keeping with ADHD. What other differential diagnoses would I consider? Would I screen for any specific potential associated conditions?
Clinical management This is about the recognition and a generalist's management of patients' problems.	What (if any) referral would I consider for Sally to confirm or refute any diagnosis? Would I consider or discuss any medications at this initial appointment?
Medical complexity This is about aspects of care beyond the acute problem, including the management of comorbidity, uncertainty, risk and health promotion.	How would I help Sally engage with appropriate follow-up care? Might there be any safeguarding concerns given Sally's symptoms? Would specific health promotion advice be indicated?
Team working This is about working effectively with others to ensure good patient care and includes sharing information with colleagues and using the skills of a multiprofessional team.	Which other professionals would it be appropriate to involve in Sally's future care (medical and non-medical)? Are practice staff confident in interacting with and supporting neurodivergent patients?
Performance, learning and teaching This is about maintaining the performance and effective CPD of oneself and others. The evidence for these activities should be shared in a timely manner within the portfolio.	What evidence base exists around annual health checks for people with neurodivergent conditions? What are the challenges of obtaining accurate and up-to-date evidence about the management of neurodevelopmental disorders? What local or national guidelines exist around neurodivergent conditions?

Organisation, management and leadership This is about understanding how primary care is organised within the NHS, how teams are managed and the development of clinical leadership skills.	Could I improve the practice environment for neurodivergent patients, such as reviewing access to appointments and set-up of the waiting room? Are there any local GPs with an Extended Role (GPwER) or primary care leads I might wish to contact for my own learning?
Holistic practice, health promotion and safeguarding This is about the ability of the doctor to operate in physical, psychological, socio-economic and cultural dimensions. The doctor is able to take into account the patient's feelings and opinions. The doctor encourages health improvement, self-management, preventative medicine and shared care planning with patients and their carers. The doctor has the skills and knowledge to consider and take appropriate safeguarding actions.	What does the biopsychosocial model mean for neurodivergent patients? How might I help Sally engage with any health promotion advice?
Community health and environmental sustainability This is about the management of the health and social care of the practice population and local community. It incorporates an understanding of the interconnectedness of health of populations and the planet.	What community resources (such as support groups, third-sector organisations, link workers) are available to Sally in my practice area? How might I best help Sally engage with such resources?

How to learn this area of practice

Work-based learning

In general practice, GP specialty trainees should take the opportunity to gain a better understanding of patients who are looked after in partnership with a specialist team and other agencies. You should also actively assist with appropriate monitoring of potential associated health conditions.

You may also wish to spend time with your local specialist teams (for example, psychiatry and paediatric teams) in seeing neurodivergent patients to gain a better understanding of how to support them.

Self-directed learning

The care of neurodivergent people is an excellent subject to discuss with your GP trainer and in groups with fellow trainees. Discussing issues with patients and their families will help you gain valuable insights into their health and social care needs.

There may also be local learning events you can attend if you wish to learn more.

You can find an eLearning module(s) relevant to this topic guide at elearning for healthcare.

Learning with other professionals

The care of neurodivergent people is a multi-agency activity that must involve the patient and relevant allied professionals, including health and social care, third sector or community agencies and education providers. Multiprofessional learning is important to gain a better understanding of the roles of different services in the care of the patient, and care should be coordinated between professionals. You may wish to attend training or teaching sessions with relevant specialist trainees in these conditions. (including psychiatry, paediatrics, occupational therapy, speech and language therapy).

Examples of how this area of practice might be tested in the MRCGP

Applied Knowledge Test (AKT)

- Diagnostic overshadowing in autism or ADHD and other neurodivergent conditions
- Sex differences in assessment and diagnosis
- Medication for ADHD or tic disorders
- Statutory legislation for vulnerable adults

Simulated Consultation Assessment (SCA)

- Phone call: a carer wants to discuss diagnosis and management for a young autistic man who has recently developed sudden jerky movements
- Phone call: a mother wishes to discuss concerns her young son is not progressing well at school due to possible ADHD
- Role player who wishes to discuss work issues due to his concerns about possible autism spectrum disorder (ASD)

Workplace-based Assessment (WPBA)

- Consultation Observation Tool (COT) on teaching a patient with dyspraxia how to use an inhaler
- Log entry about an autistic child and liaison with the child health team to get a statutory statement for school
- Case discussion about the difficulties of shared care in ADHD, especially diagnoses obtained privately

Neurology

About this topic guide

This topic guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you understand important issues relating to neurology. It also contains tips and advice for learning, assessment and continuing professional development (CPD), including guidance on the knowledge relevant to this area of general practice. Key learning points are illustrated with a case scenario and questions.

Each topic guide is intended to illustrate important aspects of everyday general practice, rather than provide a comprehensive overview of each clinical topic. It should therefore be considered in conjunction with other topic guides and educational resources.

The role of the GP in the care of people with neurological problems

As a GP, your role is to:

- recognise that neurological conditions are common causes of serious disability and have a major impact on health and social services
- adopt approaches to assess and manage common neurological conditions, including but non-specific presentations such as headache, which can present diagnostic challenges and may have serious consequences if misdiagnosed
- take a holistic approach to supporting patients with chronic neurological conditions and help to coordinate care in the community, with access to specialist clinical networks
- diagnose and appropriately manage acute neurological emergencies.

Knowledge and skills guide

For each problem or disease, consider the following areas within the general context of primary care:

- the natural history of the condition, including whether acute or chronic
- the incidence and prevalence, including in different demographic groups
- typical and atypical presentations
- recognition of normal variations throughout life
- risk factors, including lifestyle, socio-economic and genetic factors
- diagnostic features and differential diagnosis
- recognition of ‘alarm’ or ‘red flag’ features
- appropriate and relevant investigations
- interpretation of test results

- management, including initial and continuing care, chronic disease monitoring and emergency care
- patient and carer information and education, including self-care
- prognosis.

Symptoms and signs

- Cognitive impairment, such as memory loss, delirium and dementia
- Collapse
- Disturbance of smell and taste
- Dizziness
- Features differentiating between upper and lower motor neurone function
- Memory problems
- Movement disturbances, such as athetosis, chorea and tremor
- Neuralgic and neuropathic pain
- Nystagmus and symptoms or signs of cerebellar and vestibular dysfunction
- Seizures and convulsions
- Sensory and motor symptoms: weakness (such as foot drop), spasticity, paraesthesia
- Signs of raised intracranial pressure
- Speech and language deficits
- Visual problems, such as diplopia, ptosis, pupillary abnormalities and visual field defects.

Investigations

- Blood tests (eg vitamin B12, confusion screen)
- CT/ MRI scans

Examinations and procedures

- Assessment of capacity
- Counselling and investigating people with a family history of genetic neurological disease
- Fundoscopy
- Targeted central and peripheral nervous system examination, including testing of peripheral nerve and root symptoms and signs (for example, dermatomes, reflexes, sensory and motor testing) and tests of cranial nerve function
- Tests of cognition and interpretation in relation to memory loss, dementia, delirium and associated diseases
- Visual assessment (such as visual fields)

Common and important conditions

- Acute confusional states or coma, with underlying causes such as metabolic, infective or drug-induced
- Autonomic neuropathies (diabetic, drug-induced, metabolic, Covid-related dysautonomia, multiple system atrophy)
- Causes of and risk factors for recurrent falls
- Cerebellar disorders, including tumours
- Demyelination such as MS
- Complex regional pain syndrome
- Cranial nerve disease, for example, Bell's palsy, trigeminal neuralgia, bulbar palsy
- Dementia, for example, Alzheimer's disease, vascular dementia, Lewy body dementia, frontotemporal dementia, normal pressure hydrocephalus, other causes of memory loss and confusion
- Epilepsy, including generalised and focal seizures, febrile convulsions and other causes of seizures (such as hypoglycaemia, alcohol and drugs) especially in the presence of learning disability
- Falls, their causes and risk factors
- Head injuries with or without loss of consciousness, concussion and more serious cranial or intracranial injuries, and relevant long-term care with brain injuries, including secondary epilepsy and behavioural problems
- Headaches, including tension, migraine, cluster and raised intracranial pressure, including idiopathic intracranial hypertension
- Infections such as meningitis, encephalitis and arachnoiditis
- Intracranial haemorrhage, including subarachnoid, subdural and extradural, and thrombosis such as sinus thromboses and congenital aneurysms
- Motor neurone disease (MND), including progressive bulbar palsy and muscular atrophy
- Movement disorders, including restless legs syndrome, tremor and gait problems including athetosis, chorea, tardive dyskinesia, dystonia, tics; underlying causes such as Sydenham's chorea, Huntington's disease, drug-induced, parkinsonism
- Multiple sclerosis and other demyelinating disorders such as transverse myelitis
- Muscle disorders such as muscular dystrophy, myasthenia gravis and associated syndromes
- Parkinson's disease and parkinsonism secondary to other causes such as drugs
- Sensory and/or motor disturbances (peripheral nerve problems) including mononeuropathies and polyneuropathies such as nerve compression and palsies, Guillain-Barré syndrome, loss of smell in Covid
- Speech disorders, including stroke, cerebellar disease, cerebral palsy, MND
- Spinal cord disorders such as root and cord compression, cauda equina syndrome, spinalstenosis, syringomyelia; metastatic cord compression in at-risk patients
- Spinal injuries causing paralysis and relevant care of tetraplegic and paraplegic patients, including bowel and bladder care, potential complications such as pressure sores, autonomic dysfunction, aids to daily living and mobility
- Stroke, including transient ischaemic attacks, with underlying causes such as cardiac arrhythmias, arterial disease, thrombophilia

- Tumours of the brain and peripheral nervous system such as meningiomas, glioblastomas, astrocytomas, neurofibromatosis and secondary metastases

Service delivery

- Timely review and ongoing support of patients discharged from secondary care services
- Structured and personalised care planning
- Access to and quality of neurorehabilitation and reablement, including return to work, supporting people to manage their neurological condition to avoid crisis and coordinated pain management services
- Sources of help and support in the local community for people with neurological disabilities through strategic partnerships with local authorities, third-sector providers and charitable organisations

Additional important content

- Appropriate advice regarding epilepsy medication, including drug interactions, side effects, and contraceptive and pregnancy advice
- Understanding standards on fitness to drive

Case discussion

Trevor Scott, a 62-year-old manager in a haulage company, presents with a history of increasing difficulty walking, loss of energy and a noticeable tremor at rest. His speech has become less distinct, and he sleeps poorly.

Clinically, you strongly suspect he has Parkinson's disease. He has no other relevant medical history other than antihypertensive treatment and well-controlled blood pressure. He is married with a grown-up family who now live away.

Questions

These questions are provided to prompt you to consider the key points of the case. They can form the basis for a case-based discussion with your educational supervisor and will assist you in writing reflective entries in your ePortfolio. The questions are examples to trigger reflection and are not intended to be comprehensive.

Core capabilities	Questions
Fitness to practise This is about professionalism and the actions expected to protect people from harm. This includes the awareness of when an individual's performance, conduct or health, or that of others, might put patients, themselves or their colleagues at risk.	How confident do I feel in my ability to take responsibility for a diagnosis that will have significant long-term implications for this patient? What are my initial priorities for Trevor's immediate safety and wellbeing, and that of the public?
An ethical approach This is about practising ethically with integrity and a respect for equality and diversity.	What will I tell Trevor about my suspicions when I have not yet established a diagnosis? How do I balance honesty and transparency with provoking uncertainty and distress for the patient? How do I advise him about his work? What if he is resistant to my advice about informing the Driver and Vehicle Licensing Agency (DVLA)?
Communicating and consulting This is about communication with patients, the use of recognised consultation techniques, establishing and maintaining patient partnerships, managing challenging consultations, third-party consulting, the use of interpreters and consulting modalities across the range of in-person and remote methods.	What explanation of the problem will I give Trevor? What are the possible reactions I could anticipate to sensitive issues I need to discuss? How will I handle this consultation? What possible communication difficulties might I encounter?
Data gathering and interpretation This is about the gathering, interpretation and use of data for clinical judgement, including information gathered from the history, clinical records, examination and investigations.	What are the essential details in history and examination that will clarify the diagnosis? What could be the differential diagnosis?

Clinical examination and procedural skills This is about clinical examination and procedural skills. By the end of training, the GP registrar must have demonstrated competence in general and systemic examinations of all the clinical curriculum areas, including the five mandatory examinations and a range of skills relevant to general practice.	What clinical signs would I expect to find and how do I assess their impact or significance? What mental state examination would be relevant?
Decision-making and diagnosis This is about having a conscious, organised approach to making diagnosis and decisions that are tailored to the particular circumstances in which they are required.	How do I assess the degree of urgency for intervention or referral?
Clinical management This is about the recognition and a generalist's management of patients' problems.	How will I manage this problem in general practice? Should all patients be referred for a neurological opinion? What is the role of and evidence base for medication in this age group?
Medical complexity This is about aspects of care beyond the acute problem, including the management of comorbidity, uncertainty, risk and health promotion.	What are the wider implications of having Parkinson's disease for this patient? What potential drug interactions might I expect if Trevor is started on medication? What can I do for him in the interim if there is a substantial wait for an opinion by a neurologist?
Team working This is about working effectively with others to ensure good patient care and includes sharing information with colleagues and using the skills of a multiprofessional team	What is the role of the Clinical Nurse Specialist (CNS) in providing support? What is the role of the specialist versus the generalist in managing Parkinson's disease? What can I do to coordinate a multiprofessional approach to care?

Performance, learning and teaching This is about maintaining the performance and effective CPD of oneself and others. The evidence for these activities should be shared in a timely manner within the portfolio.	If I feel uncertain about managing this patient, how can I address this? What resources would I use? What issues might be addressed by a quality improvement process in my practice?
Organisation, management and leadership This is about understanding how primary care is organised within the NHS, how teams are managed and the development of clinical leadership skills.	Should there be a call and review system for patients with Parkinson's disease? What purpose would it serve? How might I disseminate my learning experience among the wider practice team?
Holistic practice, health promotion and safeguarding This is about the ability of the doctor to operate in physical, psychological, socio-economic and cultural dimensions. The doctor is able to take into account the patient's feelings and opinions. The doctor encourages health improvement, self-management, preventative medicine and shared care planning with patients and their carers. The doctor has the skills and knowledge to consider and take appropriate safeguarding actions.	What precautions should I suggest in Trevor's everyday life? Who can help me to assure that I have provided a truly holistic assessment of his needs? What social and financial support is available to patients with long-term conditions such as Parkinson's disease?
Community health and environmental sustainability This is about the management of the health and social care of the practice population and local community. It incorporates an understanding of the interconnectedness of health of populations and the planet.	What is the role of charitable sector organisations in contributing to healthcare? How can primary care provide an alternative to scarce secondary care resources in a locality? How well is disability access supported in the community? What could be done to improve access?

How to learn this area of practice

Work-based learning

In general practice, patients present with various neurological problems at varying stages of the natural history. As a GP registrar, critical professional discourse with your trainer will aid you in developing 'heuristics', that is, strategies for problem-solving in the cases you see. Supervised practice will also give you greater confidence.

Following up cases during your training period allows you to observe for yourself the natural history of neurological diseases and how they develop. Such clinical experience during training will be supported by your GP trainer and experienced members of the primary healthcare team.

Many patients with chronic neurological conditions are resident in accommodation provided by voluntary organisations within the community. They usually have an appointed GP, and it is important that you gain experience for caring for patients in this environment. This might require working with another practice if your training practice does not look after such a 'home'.

Most specialist care is provided in outpatient settings. These are ideal places for you to see concentrated groups of patients with neurological problems. They provide opportunities to observe many of the common conditions, as well as treatments for conditions such as migraine, epilepsy, stroke and Parkinson's disease. You should consider attending specialist neurology clinics during your general practice-based placements.

Self-directed learning

You can find an eLearning module(s) relevant to this topic guide at elearning for healthcare.

Learning with other healthcare professionals

Neurological problems are often exemplars of teamwork and the multidisciplinary approach, so take the opportunity to understand the different roles with the many professional and non-professional groups who work as a team within both primary and secondary care. Physiotherapists, occupational therapists, specialist nurses and district nurses, in particular, have important expertise in the management of neurological disease and rehabilitation. You will also find that specific case conferences are often held to organise and focus efforts on the provision of care.

Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- Red flag neurological symptoms
- Interpretation of neurological symptoms and signs
- Long-term condition management, such as Parkinson's disease, epilepsy

Simulated Consultation Assessment (SCA)

- A patient brings a letter from a hospital accident and emergency (A&E) department documenting a witnessed epileptic fit while he was on holiday
- A man has recurrent headaches that are now daily and not responding to simple analgesia
- A woman developed a weak and clumsy hand last night, dropping her book, but has no symptoms this morning

Workplace-based Assessment (WPBA)

- Case-based Discussion (CbD) on organising a social care package for an older woman with rapidly deteriorating mobility and frequent falls
- Clinical examination and procedural skills (CEPS) on a focused neurological examination for a man who is concerned that he has a brain tumour, although the symptoms are more likely to be migrainous
- Log entry about a man who is diagnosed with MND after presenting with dysphagia

Renal and urology

About this topic guide

This topic guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you understand important issues relating to renal and urological health by illustrating the key learning points with a case scenario and questions. It also contains tips and advice for learning, assessment and continuing professional development (CPD), including guidance on the knowledge relevant to this area of general practice.

Each topic guide is intended to illustrate important aspects of everyday general practice, rather than provide a comprehensive overview of each clinical topic. It should therefore be considered in conjunction with other topic guides and educational resources.

The role of the GP in kidney and urological health

As a GP your role is to:

- identify and manage chronic kidney disease (CKD), and understand the interventions that can delay its progression and reduce the associated increased cardiovascular morbidity and mortality
- identify and manage acute kidney injury (AKI), including taking early action, such as stopping medication, to reduce the risk of AKI
- manage common urinary tract problems such as urinary tract infection (UTI), renal stone disease and benign prostatic conditions
- be alert to possible indicators of urinary tract malignancy
- know when to refer and when not to refer, avoiding futile investigation and escalation and encouraging supportive care.

Knowledge and skills guide

For each problem or disease, consider the following areas within the general context of primary care:

- the natural history of the condition, including whether acute or chronic
- the incidence and prevalence, including in different demographic groups
- typical and atypical presentations
- recognition of normal variations throughout life
- risk factors, including lifestyle, socio-economic and genetic factors
- diagnostic features and differential diagnosis
- recognition of ‘alarm’ or ‘red flag’ features
- appropriate and relevant investigations
- interpretation of test results

- management, including initial and continuing care, chronic disease monitoring and emergency care
- patient and carer information and education, including self-care
- prognosis.

Symptoms and signs

Urinary

- Dysuria
- Haematuria
- Lower urinary tract symptoms (LUTS):
    - storage symptoms: frequency, nocturia, urgency
    - voiding symptoms: hesitancy, poor stream, terminal dribble
    - post-micturition symptoms: post-micturition dribble, sensation of incomplete emptying
- Oliguria, anuria, polyuria
- Proteinuria
- Strangury
- Urinary incontinence – stress, urgency and mixed
- Urinary retention – acute and chronic

Genital

- Abnormal digital rectal examination
- Erectile dysfunction
- Haematospermia
- Penile problems, including deformity and skin lesions
- Perineal pain
- Scrotal pain, swelling and lumps
- Testicular pain, swelling and lumps

Abdominal

- Abdominal and loin masses, including palpable kidneys and bladder
- Abdominal and loin pain

Systemic

- Anaemia
- Fever and rigors
- Hypertension
- Oedema
- Pruritus
- Thirst
- Systemic symptoms of vasculitis, for example, rash and arthralgia

Common and important conditions

- AKI
- Cancer: bladder, kidney, penile, prostate, testicular, ureteric
- CKD, including causes, classification, management (including cardiovascular risk reduction), monitoring and indications for referral
- Congenital abnormalities of the urinary tract
- Haematuria (visible or non-visible)
- Inherited kidney diseases such as polycystic kidney disease, Alport syndrome
- Intrinsic renal disease (such as glomerulonephritis)
- Overactive bladder syndrome
- Penile problems such as malignancy, paraphimosis, Peyronie's disease, phimosis, priapism, balanitis, skin disorders
- Prostatic problems such as acute and chronic prostatitis, benign prostatic hyperplasia, prostatic carcinoma
- Proteinuria (including microalbuminuria)
- Renovascular disease (renal artery stenosis)
- Systemic conditions causing renal disease, for example, connective tissue diseases, diabetes mellitus, glomerulonephritis, hypertension, malignancy such as multiple myeloma, nephrotic syndrome
- Testicular problems, including epididymitis, hydrocele, orchitis, sperm granuloma, torsion, tumours (such as seminoma and teratoma), undescended and maldescended (undescended) testes, varicocele
- Urinary incontinence in men
- Urinary incontinence in women: stress and/or urge incontinence. (Prolapse is covered in the *Gynaecology and breast health* topic guide)
- UTIs in children and adults including lower UTI, pyelonephritis and persistent or recurrent infection
- Urinary tract obstruction, including acute and chronic retention; causes including prostatic and other structural abnormalities (strictures, congenital renal tract abnormality such as posterior urethral valves, duplex systems)
- Urolithiasis (stone disease): renal colic, management of stones including lithotripsy and ureteric stents

(Erectile dysfunction and sexually transmitted infection are covered in the *Sexual health* topic guide.)

Examinations and procedures

- Abdominal examination to include bladder and kidney palpation
- Assessment of fluid balance status
- Digital rectal examination, including prostate size, tenderness, nodules
- Genital examination
- Urine dipstick testing

Investigations

- Blood tests, including creatinine, estimated glomerular filtration rate (eGFR), electrolytes, full blood count, prostate-specific antigen (PSA), calcium, phosphate, parathyroid hormone (PTH) and vitamin D
- The Kidney Failure Risk Equation
- International Prostate Symptom Score (IPSS) to assess LUTS
- Renal tract imaging including ultrasound and computed tomography of the kidneys, ureters and bladder (CTKUB)
- Secondary care investigations (such as cystoscopy, ureteroscopy, urodynamic studies, flow rate studies and multiparametric magnetic resonance imaging (MRI))
- Urine tests, including biochemistry, microscopy, culture and sensitivities, quantification of urinary albumin and protein

Service issues

- Call and recall systems to ensure patients with CKD receive appropriate monitoring
- Circumcision for religious or cultural beliefs, including ethical issues
- Debate around the role of the PSA blood test as a screening test for prostate cancer
- Local continence services and arrangements for management of long-term urinary catheters
- The role of chaperones in intimate examinations

Additional important content

- Being aware that the patient's physiology and anatomy may be different from the patient's gender
- Catheters: types, indications, management, problems such as bypassing, infection, self-catheterisation, use of catheters in paraplegic patients
- Conservative management of end-stage renal failure, including management of anaemia
- Dialysis: peritoneal and haemodialysis, including complications that may be encountered in primary care (such as infection of catheter sites, fluid balance disturbance)
- Methods to estimate and measure glomerular filtration rate (GFR), including their limitations
- Nephrostomy and cystostomy care
- Prescribing in kidney disease (such as dose adjustment in renal impairment) and an awareness of nephrotoxic medications
- Renal transplantation and post-transplant care that is relevant to primary care

Case discussion

Tim Atkinson is a 37-year-old businessman who presents to you having recently had a 'well man' check through his employer's private healthcare provider. At this check he was found to have 2+ blood and 3+ protein on his urine dipstick and was advised to see his GP to follow this up. He is otherwise fit and well and asymptomatic. Abdominal examination is normal, and his blood pressure is 155/93. The urine dipstick shows persistent proteinuria and non-visible haematuria. He tells you his mother had a renal transplant five years ago but he is not sure about the reason for this. You arrange some blood tests, which show he has an eGFR of 46ml/min/1.73m^2.

Questions

These questions are provided to prompt you to consider the key points of the case. They can form the basis for a case-based discussion with your educational supervisor and will assist you in writing reflective entries in your ePortfolio. The questions are examples to trigger reflection and are not intended to be comprehensive.

Core capabilities	Questions
Fitness to practise This is about professionalism and the actions expected to protect people from harm. This includes the awareness of when an individual's performance, conduct or health, or that of others, might put patients, themselves or their colleagues at risk.	What are my thoughts on the private sector providing 'well person' checks? What difficult issues might be raised by the results from these checks?
An ethical approach This is about practising ethically with integrity and a respect for equality and diversity.	Knowing more about his mother's kidney problem might be very helpful here, but raises issues regarding medical confidentiality – how can I explore this ethically? How would I respond to health enquiries from an employer who provide screening for employees?

Communicating and consulting This is about communication with patients, the use of recognised consultation techniques, establishing and maintaining patient partnerships, managing challenging consultations, third-party consulting, the use of interpreters and consulting modalities across the range of in-person and remote methods.	What do I need to find out about this patient's ideas, concerns and expectations regarding his health? What strategies could I use to explore how much Tim already knows about kidney disease given the family history of a kidney transplant? How can I explore how this family history might be impacting on his own concerns? How do I explain to the patient what the cause of his abnormal urine dipstick and blood results might be?
Data gathering and interpretation This is about the gathering, interpretation and use of data for clinical judgement, including information gathered from the history, clinical records, examination and investigations.	What is the significance of an eGFR of 46ml/min/1.73m^2? What other investigations might I want to carry out?
Clinical examination and procedural skills This is about clinical examination and procedural skills. By the end of training, the GP registrar must have demonstrated competence in general and systemic examinations of all the clinical curriculum areas, including the five mandatory examinations and a range of skills relevant to general practice.	What factors affect the accuracy of urine dipstick testing? How would I assess fluid balance status?
Decision-making and diagnosis This is about having a conscious, organised approach to making diagnosis and decisions that are tailored to the particular circumstances in which they are required.	How do I decide whether or not referral to secondary care is indicated and if so to which specialty (urology or nephrology) and with what urgency?

Clinical management This is about the recognition and a generalist's management of patients' problems.	What are the indications for referral to secondary care for investigation of haematuria, proteinuria or reduced eGFR?
Medical complexity This is about aspects of care beyond the acute problem, including the management of comorbidity, uncertainty, risk and health promotion.	It is possible this represents an inherited kidney disease and will have implications for Tim's relationships with his mother, wider family and children. How would I explore this with him? What issues might arise when considering whether someone with a genetic condition should be advised to inform their relatives that they may have inherited the condition? What if they decline to inform their relatives?
Team working This is about working effectively with others to ensure good patient care and includes sharing information with colleagues and using the skills of a multiprofessional team.	If I decide to refer Tim to the local kidney unit, how can I collaborate with them to provide high-quality care for him?
Performance, learning and teaching This is about maintaining the performance and effective CPD of oneself and others. The evidence for these activities should be shared in a timely manner within the portfolio.	Where can I find out more about CKD and AKI? How do I maintain my knowledge of rare conditions such as inherited kidney disease?
Organisation, management and leadership This is about understanding how primary care is organised within the NHS, how teams are managed and the development of clinical leadership skills.	What systems can help with effective primary care monitoring and recall of patients with chronic diseases such as CKD? What role do information technology (IT) systems have in helping patients engage with their chronic disease management? What issues are raised by these systems?

Holistic practice, health promotion and safeguarding This is about the ability of the doctor to operate in physical, psychological, socio-economic and cultural dimensions. The doctor is able to take into account the patient's feelings and opinions. The doctor encourages health improvement, self-management, preventative medicine and shared care planning with patients and their carers. The doctor has the skills and knowledge to consider and take appropriate safeguarding actions.	What impact might kidney disease have on a patient's life? What is the place of 'well person' checks? What ethical issues are raised by these?
Community health and environmental sustainability This is about the management of the health and social care of the practice population and local community. It incorporates an understanding of the interconnectedness of health of populations and the planet.	How can we promote increased awareness of kidney disease among our local population? Are there any communities locally who may be at higher risk of kidney disease?

How to learn this area of practice

Work-based learning

- General practice is where the vast majority of patients with kidney and urological health issues present. GPs have a key role in identifying and managing the majority of patients with CKD.
- Some GP registrars will have dedicated hospital placements with renal medicine or urology teams, where the management of acute or complex cases can be observed.
- Kidney problems are very common among medical inpatients; nearly all hospital training posts will bring some exposure to CKD and AKI in particular. GP registrars with paediatric placements may encounter childhood renal and urology problems.

Self-directed learning

You can find eLearning module(s) relevant to this topic guide at elearning for healthcare and at RCGP eLearning.

The RCGP has a toolkit on AKI on its website.

Learning with other healthcare professionals

CKD is a chronic disease and has significant overlap with other chronic conditions, in particular diabetes, hypertension and vascular disease. Experience gained with specialist nurses working in these fields will often include experience of managing CKD.

District nurses are particular experts on catheter management and will be able to give tips and advice on this area.

Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- Monitoring of CKD
- Diagnosis of penile or scrotal pathology
- Investigations for haematuria

Simulated Consultation Assessment (SCA)

- A middle-aged man has abdominal and loin pain. Examination expected
- A woman with diabetes and hypertension is recalled urgently to discuss a sudden drop in renal function. She is recovering from gastroenteritis
- A young woman with multiple sclerosis wants to discuss worsening urinary incontinence

Workplace-based Assessment (WPBA)

- Observed clinical examination and procedural skills (CEPS) on a prostate examination in a man with a raised PSA
- Learning log reflecting on a teenager who delayed several months before attending with a testicular swelling
- Audit – looking at the prescribing of long-term antibiotics for patients with recurrent UTIs

Respiratory health

About this topic guide

This topic guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you understand important issues relating to respiratory health by illustrating the key learning points with a case scenario and questions. It also contains tips and advice for learning, assessment and continuing professional development (CPD), including guidance on the knowledge relevant to this area of general practice.

Each topic guide is intended to illustrate important aspects of everyday general practice, rather than provide a comprehensive overview of each clinical topic. It should therefore be considered in conjunction with other topic guides and educational resources.

The role of the GP in respiratory health

Respiratory diseases are among the most common long-term conditions affecting patients in the UK. As a GP, your role is to:

- recognise that the identification, assessment, diagnosis and treatment of most acute and chronic respiratory diseases are managed in primary care
- consider how respiratory disease affects patients of all ages. It also brings specific challenges in the diagnosis and treatment of various groups, including children, some occupational and ethnic groups, those with social and mental health challenges and those nearing the end of their life
- be aware of your role as a GP in promoting smoking cessation and offering treatment.

Emerging issues in respiratory health

A wide range of patients with respiratory problems is seen in primary care, which presents challenges for:

- diagnosis: such as distinguishing common minor self-limiting conditions from less common but more serious conditions (for example, sepsis). Early diagnosis is a contributory factor to improving outcomes in conditions such as lung cancer
- awareness of the pros and cons of emerging diagnostic tools such as fractional exhaled nitric oxide (FeNO) in asthma
- recognition: conditions such as chronic obstructive airways disease are underrecognised and contribute significantly to seasonal admissions to secondary care
- recognition: impact of environmental factors and social circumstances, such as air pollution effects and effects of poor damp living conditions on respiratory conditions, especially in children

- patient education: self-management of minor conditions and increasing treatment during exacerbations of chronic conditions such as asthma and chronic obstructive airways disease. Empowering patients with person-centred care
- recognition: impact of Covid and post-Covid syndrome on respiratory symptoms it may present with and the impact it has on patients' overall wellbeing
- chronic disease management, such as managing recall systems for asthma and chronic obstructive airways disease, the effect on acute admissions and influenza vaccination
- smoking cessation: the value of opportunistic and structured interventions in helping patients stopping smoking and the evolving role of e-cigarettes/vaping in addition to current therapies.

Knowledge and skills guide

For each problem or disease, consider the following areas within the general context of primary care:

- the natural history of the condition, including whether acute or chronic
- the prevalence and incidence across all ages and any changes over time
- typical and atypical presentations
- recognition of normal variations throughout life
- risk factors, including lifestyle, socio-economic and cultural factors
- diagnostic features and differential diagnosis
- recognition of 'alarm' or 'red flag' features
- appropriate and relevant investigations
- interpretation of test results
- management, including self-care, initial, emergency and continuing care, chronic disease monitoring
- patient information and education, including self-care
- prognosis.

Symptoms and signs

- Chest pain
- Clubbing
- Collapse
- Cough
- Cyanosis
- Dyspnoea
- Fever
- General malaise, including weight loss and fatigue
- Haemoptysis
- Lymphadenopathy
- Pleural effusion
- Signs of respiratory distress in children (for example, recession, nasal flaring)

- Stridor and hoarseness
- Tachypnoea
- Wheeze
- Peripheral oedema

Common and important conditions

- Asthma: acute and chronic
- Asthma and chronic obstructive pulmonary disease (COPD) overlap
- Bronchiectasis
- COPD
- Connective tissue diseases affecting the lung, such as rheumatoid arthritis, systemic lupus erythematosus (SLE) and sarcoidosis
- Covid-19, including the acute illness, ongoing symptomatic Covid-19 and post-Covid syndrome
- Genetic conditions including cystic fibrosis and alpha-1-antitrypsin deficiency (AATD)
- Immunosuppression affecting the respiratory system, including opportunistic infections such as tuberculosis (TB), fungal and parasitic lower respiratory tract infections (for example, bronchiolitis, bronchitis, pertussis, pneumonia (of any cause), atypical pneumonias including Legionnaire's disease and tuberculosis), sepsis
- Lower respiratory tract infections
- Lung fibrosis and associated causes, including adverse drug reactions
- Occupational respiratory diseases such as pneumoconioses, asthma, extrinsic allergic alveolitis and asbestos-related disease
- Pleural effusion caused by infection, connective tissue diseases and malignancies
- Pneumothorax, including simple and tension
- Pulmonary embolism
- Respiratory failure and methods of ventilation such as continuous positive airway pressure (CPAP) for sleep apnoea
- Respiratory malignancies, including laryngeal, bronchial and pleural, such as mesothelioma. Primary and secondary lung malignancies and related paraneoplastic syndromes
- Upper respiratory tract infections, including tonsillitis, peritonsillar abscess, epiglottitis, laryngitis, pharyngitis and tracheitis

Examinations and procedures

- Appropriate focused clinical examination to identify respiratory disease
- Specific procedures, such as peak expiratory flow rate measurement
- Demonstrate the correct use of inhalers, including with delivery device (aerochamber or volumatic) and check that a patient can use their device properly
- Administration of inhaled bronchodilators with spacer or nebuliser, including correct techniques

Investigations

- Primary care investigations such as spirometry, exhaled nitric oxide testing (FeNO), pulse oximetry, blood tests and sputum culture (including indications for, correct technique, interpretation of results and factors affecting results)
- Disease scoring tools (such as CRB-65 for community-acquired pneumonia)
- Indications for chest X-rays, computed tomography (CT) and magnetic resonance imaging (MRI) scans

Service issues

- Local and national guidelines to manage common respiratory diseases (asthma, COPD, lung cancer) in primary care
- Indications for the use of oxygen in emergency, acute and chronic management, including domiciliary oxygen and use in palliative care
- Patients' understanding of prescribed inhaled medication, both routinely and in an emergency, including its appropriate use and technique
- Inhaler devices, including types of device and their ease of use, prescribing, planetary health, cost-effectiveness and patient preference
- Support available to patients and their carers from health, social services and charities/voluntary sector organisations

Additional important content

- History-taking: key points with respect to specific respiratory diseases (for example, in relation to occupation, smoking, 'red flag' symptoms, family history)
- The importance of lifestyle changes, particularly smoking cessation, and pulmonary rehabilitation
- The impact of comorbidity, such as muscle wasting, osteoporosis, cardiovascular disease or mental health problems in people with long-term respiratory conditions such as asthma and COPD, and the effect of these on morbidity and mortality
- The potential for financial compensation for those diagnosed with mesothelioma and other occupational lung diseases. Appropriate signposting to specialist services, and appropriate death certification for these conditions

Case discussion

Callum Davies is a 55-year-old man who first presented to you a year ago complaining of increasing breathlessness over the past year. Further discussion revealed repeated winter chest infections with mucopurulent sputum needing antibiotics. He is a smoker, having started smoking age 15. He usually smokes one pack of cigarettes per day. He is a self-employed plumber. His mother has COPD.

He has a body mass index (BMI) of 31. On the basis of an examination and investigations, you diagnosed COPD and prescribed appropriate inhaler devices. You also offered support to stop smoking, follow-up with the practice nurse and a referral for pulmonary rehabilitation at the local community centre.

It is now the following winter and Callum attends an emergency GP appointment. He is distressed, breathless, cyanosed and tachycardic, with an SpO2 (oxygen saturation) of 89%, having been unwell for the previous five days. Although he has stopped smoking his wife continues to do so. He tells you he did not want to bother anyone and cannot afford to take time off work. He had hoped he could ride out this episode using more inhalers.

Questions

These questions are provided to prompt you to consider the key points of the case. They can form the basis for a case-based discussion with your educational supervisor and will assist you in writing reflective entries in your ePortfolio. The questions are examples to trigger reflection and are not intended to be comprehensive.

Core capabilities	Questions
Fitness to practise This is about professionalism and the actions expected to protect people from harm. This includes the awareness of when an individual's performance, conduct or health, or that of others, might put patients, themselves or their colleagues at risk.	What are my personal feelings about smoking-related illnesses and how do I ensure these do not adversely affect the care I provide?
An ethical approach This is about practising ethically with integrity and a respect for equality and diversity.	Is Callum responsible for his own illness? What are the challenges facing me as a GP in delivering effective care in this case? How does patient autonomy influence joint decision-making (considering occupation, smoking or illicit drug use, which affect respiratory illness and its treatment)?

Communicating and consulting This is about communication with patients, the use of recognised consultation techniques, establishing and maintaining patient partnerships, managing challenging consultations, third-party consulting, the use of interpreters and consulting modalities across the range of in-person and remote methods.	How could Callum's worries have been addressed, and by whom? What is the role of self-management in respiratory disease? How can patients be empowered?
Data gathering and interpretation This is about the gathering, interpretation and use of data for clinical judgement, including information gathered from the history, clinical records, examination and investigations.	What investigations are appropriate to diagnose COPD? How confident am I at interpreting spirometry? How do I grade the severity of symptoms and functionality?
Clinical examination and procedural skills This is about clinical examination and procedural skills. By the end of training, the GP registrar must have demonstrated competence in general and systemic examinations of all the clinical curriculum areas, including the five mandatory examinations and a range of skills relevant to general practice.	What clinical skills do I need to assess different patients with respiratory disease, including children, older adults and those with mental health problems? What is the correct technique for recording a peak expiratory flow rate and for using a metered-dose inhaler with spacer? How would I instruct my patient to apply these techniques? What are the signs of respiratory distress in a child?
Decision-making and diagnosis This is about having a conscious, organised approach to making diagnosis and decisions that are tailored to the particular circumstances in which they are required.	What factors might influence my decisions when assessing or managing patients with respiratory conditions in primary care?
Clinical management This is about the recognition and a generalist's management of patients' problems.	What management options are available for Callum in the acute primary care setting? How can I apply COPD guidance documents to discuss a management strategy with this patient? How can the effectiveness of the treatment be monitored by the patient and by the primary care team?

Medical complexity This is about aspects of care beyond the acute problem, including the management of comorbidity, uncertainty, risk and health promotion.	What are the common comorbidities associated with respiratory disease? How do comorbidities or systemic problems impact on respiratory illness and its treatment? What impact does the patient's lifestyle, ethnicity, education and occupation have on their respiratory health and their future treatment?
Team working This is about working effectively with others to ensure good patient care and includes sharing information with colleagues and using the skills of a multiprofessional team.	Are there any local protocols for managing COPD? How are COPD patients looked after in my practice? What role do nurses and other primary care team members play in patients' management? What is the role of the generalist and the specialist in diagnosis and management?
Performance, learning and teaching This is about maintaining the performance and effective CPD of oneself and others. The evidence for these activities should be shared in a timely manner within the portfolio.	What is the evidence base for the early identification of patients with chronic lung disease and subsequent health education and therapeutic interventions? Do I know when to introduce additional treatment? How many unidentified patients with COPD are there in our practice? How might we identify such patients?
Organisation, management and leadership This is about understanding how primary care is organised within the NHS, how teams are managed and the development of clinical leadership skills.	What templates should I use during consultation with patients with asthma and COPD? How would I monitor quality of care for COPD patients?

Holistic practice, health promotion and safeguarding This is about the ability of the doctor to operate in physical, psychological, socio-economic and cultural dimensions. The doctor is able to take into account the patient's feelings and opinions. The doctor encourages health improvement, self-management, preventative medicine and shared care planning with patients and their carers. The doctor has the skills and knowledge to consider and take appropriate safeguarding actions.	What is the impact of respiratory disease on patients physically, psychologically and socially (including occupation and employability)? What impact does respiratory disease have on families? How do I assess suitability for smoking cessation options?
Community health and environmental sustainability This is about the management of the health and social care of the practice population and local community. It incorporates an understanding of the interconnectedness of health of populations and the planet.	What is the impact of health and social inequality on respiratory disease prevalence, diagnosis, prognosis and treatment? What support services might be available to Callum and his family? What are the planetary health implications for different inhaler devices?

How to learn this area of practice

Work-based learning

As a GP registrar, the principal component of your work-based learning around respiratory disease involves discussing, assessing and helping to manage patients with respiratory disease. Learning from the whole multidisciplinary primary care team is important.

Specific learning around the performance and interpretation of lung function testing, as commonly performed in general practice, should reflect the needs and responsibilities of the generalist.

With respect to patients with respiratory disease, a GP should be aware of the roles and responsibilities of the primary care team in its widest sense, including community staff and secondary care outreach, charities and self-help groups, physiotherapists and exercise trainers. You should also look for opportunities to learn from local respiratory consultants, physiotherapists and multidisciplinary groups.

Self-directed learning

You can find eLearning module(s) relevant to this topic guide at elearning for healthcare.

Other organisations offering education and support include: Asthma + Lung UK, the British Society of Allergy and Clinical Immunology (BSACI), British Thoracic Society and Primary Care Respiratory Society (PCRS).

Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- Interpretation of spirometry results
- Differential diagnosis of breathlessness
- Management of acute and chronic asthma

Simulated Consultation Assessment (SCA)

- A blind woman has recently been diagnosed with asthma and was prescribed salbutamol, but she is still symptomatic
- A carer requests a house visit to an elderly man who has a dry cough and become slightly confused over the past few days
- A man with COPD has been stable on three inhaled medications but is now complaining of increasing cough and dyspnoea

Workplace-based Assessment (WPBA)

- Log entry about your involvement in the asthma clinic and the indications for the different asthma inhalers available
- Consultation Observation Tool (COT) about a woman with a persistent cough whose chest X-ray suggests sarcoidosis
- Audit on the use of high-dose steroid inhalers with reference to current national guidelines

Sexual health

About this topic guide

This topic guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you understand important issues relating to sexual health by illustrating the key learning points with a case scenario and questions. It also contains tips and advice for learning, assessment and continuing professional development (CPD), including guidance on the knowledge relevant to this area of general practice.

Each topic guide is intended to illustrate important aspects of everyday general practice, rather than provide a comprehensive overview of each clinical topic. It should therefore be considered in conjunction with other topic guides and educational resources. There is particular overlap between this topic guide and the *Maternity and reproductive health* and *Gynaecology and breast health* guides.

The role of the GP in sexual health

Sexual health is concerned with enabling an individual to experience enjoyment of sexual activity without causing themselves or anyone else physical or mental harm. It is also concerned with contraception and sexually transmitted infections (STIs). As a GP, your role is to:

- provide contraceptive services, sexual health screening, and testing and treatment of STIs, and to support partner contact tracing
- be able to take a concise sexual history that enables risk assessment for STIs, often in the context of patients who may not consider themselves to be at risk of STIs
- offer opportunistic sexual health promotion and risk-reduction advice. Provide care that is non-judgemental and holistic, recognising the physical, psychological and social impact of good sexual health
- be aware of the key legal precedents, guidelines and ethical issues that influence sexual healthcare provision, especially regarding patients under 16 years of age in relation to consent and confidentiality, and at all ages in relation to confidentiality, abortion, sexual assault, coercion and female genital mutilation (FGM)
- recognise that gender, gender identity, gender dysphoria and sexual orientation are all different facets of a person's health and that issues relating to these may present in childhood, adolescence or adulthood and have a wide influence on wellbeing
- provide care and support for women with unwanted pregnancy and for women requesting or having undergone termination of pregnancy.

Emerging issues in sexual health

- Teenage pregnancy rates in the UK are falling but remain the highest in Western Europe.
- People who experience gender dysphoria, including children and young people, may increasingly present to GPs.
- The incidence of STIs is changing (for example, reduced incidence of genital warts, increased rates of syphilis and antibiotic-resistant gonorrhoea).
- There is debate surrounding the effectiveness of the chlamydia screening programme and of human immunodeficiency virus (HIV) screening in high-prevalence areas.
- HIV continues to be one of the most important communicable diseases in the UK. General practice has a role in caring for patients with HIV and assessing the risk of having undiagnosed HIV. PrEP (Pre-Exposure Prophylaxis) is likely to become increasingly used to protect high-risk individuals from becoming HIV positive.
- The prevention, recognition and reporting of FGM and the legal duties relating to this, as well as the subsequent psychological, sexual and pregnancy issues that may arise, should be understood by GPs.

Knowledge and skills guide

For each problem or disease, consider the following areas within the general context of primary care:

- the natural history of the condition, including whether acute or chronic
- the incidence and prevalence, including in different demographic groups
- typical and atypical presentations
- recognition of normal variations throughout life
- risk factors, including lifestyle, socio-economic and genetic factors
- diagnostic features and differential diagnosis
- recognition of ‘alarm’ or ‘red flag’ features
- appropriate and relevant investigations
- interpretation of test results
- management, including initial and continuing care, chronic disease monitoring and emergency care
- patient and carer information and education, including self-care
- prognosis.

Symptoms and signs

- Abnormal vaginal bleeding suggestive of infection including post-coital and intermenstrual bleeding
- Dyspareunia
- Dysuria
- Erectile dysfunction and premature ejaculation

- Feelings and behaviours related to gender dysphoria
- Genital ulcers and warts
- Pelvic and abdominal pain
- Penile discharge
- Psychosexual dysfunction, including anorgasmia, loss of arousal, loss of libido and vaginismus
- Systemic manifestations of STIs (for example, reactive arthritis, rash)
- Vaginal discharge
- Vulval pain or irritation

Common and important conditions

Infections

- Bacterial vaginosis
- Candida

Infestations (including pubic lice and scabies)

- Pelvic inflammatory disease (PID)
- STIs including chlamydia, genital herpes simplex, genital warts, gonorrhoea, human papillomavirus (HPV), sexually transmitted blood-borne viruses (HIV, hepatitis B and (rarely) hepatitis C), syphilis and trichomonas

Sexual dysfunction

- Female sexual dysfunction, including anorgasmia, dyspareunia, hypoestrogenism, loss of libido and vaginismus
- Male sexual dysfunction, including erectile dysfunction due to organic causes (such as diabetes, drug-induced (including smoking), neurological disease and vascular disease) and psychological causes. Premature ejaculation

Other

- FGM, including practical and legal aspects, reporting mechanisms and protecting girls at risk of FGM
- Gender identity, dysphoria and reassignment, including children and young people
- Genitourinary skin disorders, including lichen sclerosus, balanitis
- Provision of, and access to, pregnancy termination services (including variation in this between the four UK nations)
- Sexual abuse and assault (both adult and child), including care of patients who have been abused and indicators of assault (including STI in children).
- Child sexual exploitation
- Unwanted pregnancy and termination of pregnancy (including legal and ethical aspects)

Examinations and procedures

- Male and female genital examination (including bimanual pelvic examination and speculum examination)
- pH testing for bacterial vaginosis
- Vaginal swabs: use of 'self-taken' samples (vulvo-vaginal and urine) for chlamydia and gonorrhoea; indications for clinician-taken swabs

Investigations

- Investigation of STI: swabs, urine and blood tests (including timing of testing, practicalities and interpretations of results)

Other important content

- Empirical management of vaginal discharge
- Female contraception, including:
    - hormonal contraception: combined oral, patch and ring contraception, progesteron-only methods including oral, depot injection, subdermal implant, intrauterine system (IUS)
    - non-hormonal contraception: cap, diaphragm, female condom, intrauterine device (IUD)
    - long-acting reversible contraception (LARC)
    - sterilisation
    - emergency contraception
- Male contraception, including condoms, spermicides, vasectomy
- Methods of natural family planning
- Prescribing for patients taking HIV medications from specialist clinics, including drug interactions
- Safe sex advice, sexual health promotion and risk reduction (adults and young people)
- Screening for STIs including chlamydia and HIV

Service issues

- Access to gender identity clinics and care of patients with gender dysphoria in primary care, including sensitive record-keeping and appropriate use of titles and personal pronouns
- Access to sexual health services for individuals with learning or physical disability or with different communication needs
- Awareness of local prevalence of HIV and blood-borne viruses (BBVs), including some awareness of overseas prevalence as relevant to international patients
- Consent and confidentiality in respect of under-16s accessing sexual health services (Fraser guidelines)
- HPV vaccination programme

- Local and national strategies to reduce teenage and unplanned pregnancies
- Local service arrangements for:
    - provision of LARC services and sterilisation procedures
    - access to emergency contraception
    - STI testing and access to genitourinary medicine (GUM) clinics
    - patients presenting following sexual assault
- Provision of sexual health promotion services, including:
    - health promotion and 'safe sex' advice, particularly in higher risk groups (such as young people, men who have sex with men (MSM) and sex workers)
    - hepatitis A and B vaccinations for MSM and the use of PrEP
- Screening for domestic and intimate partner violence in the context of sexual health consultations

Case discussion

You work in an inner-city London practice. The first patient of the morning is Precious Lam, a 26-year-old who arrived in the UK two years ago as a refugee from Sudan. You note she attends infrequently and has had two early pregnancy terminations since registering with you. She has come to see you today because she has missed her last period and is requesting another abortion. She was last seen six months ago when she was given a three-month supply of the combined oral contraceptive pill by one of your colleagues.

You try to explore her history, but she seems reluctant to answer you and seems to be avoiding eye contact. There is no evidence of any previous STI testing or cervical screening.

Questions

These questions are provided to prompt you to consider the key points of the case. They can form the basis for a case-based discussion with your educational supervisor and will assist you in writing reflective entries in your ePortfolio. The questions are examples to trigger reflection and are not intended to be comprehensive.

Core capabilities	Questions
Fitness to practise This is about professionalism and the actions expected to protect people from harm. This includes the awareness of when an individual's performance, conduct or health, or that of others, might put patients, themselves or their colleagues at risk.	How to I feel about repeated requests from a woman for termination of pregnancy? How would my attitude towards Precious be influenced if I learned she was a sex worker? Or a victim of sexual abuse?

An ethical approach This is about practising ethically with integrity and a respect for equality and diversity.	Do I have any personal ethical objections to dealing with sexual health matters such as abortion, certain methods of contraception and methods of fertility treatment? How do I ensure these objections do not adversely affect patient care? Am I aware of the General Medical Council (GMC) *Personal beliefs and medical practice* guidance[33]? What are the legal issues regarding an abortion request?
Communicating and consulting This is about communication with patients, the use of recognised consultation techniques, establishing and maintaining patient partnerships, managing challenging consultations, third-party consulting, the use of interpreters and consulting modalities across the range of in-person and remote methods.	How might I explore Precious's sexual history? How do I ask about the possibility of FGM? How does Precious feel about her unwanted pregnancy abortion request? She is reluctant to answer questions – how do I determine if there are issues she feels unable to discuss today? How do I explore why Precious did not continue with her contraceptive pill?
Data gathering and interpretation This is about the gathering, interpretation and use of data for clinical judgement, including information gathered from the history, clinical records, examination and investigations.	How do I confirm she is pregnant and at what gestation? How can I investigate for HIV or other STIs?
Clinical examination and procedural skills This is about clinical examination and procedural skills. By the end of training, the GP registrar must have demonstrated competence in general and systemic examinations of all the clinical curriculum areas, including the five mandatory examinations and a range of skills relevant to general practice.	What clinical examinations and investigations might be appropriate in this situation?

[33] https://www.gmc-uk.org/professional-standards/the-professional-standards/personal-beliefs-and-medical-practice

Decision-making and diagnosis This is about having a conscious, organised approach to making diagnosis and decisions that are tailored to the particular circumstances in which they are required.	How do I determine safely if Precious is at immediate risk of harm (such as domestic violence)? How do I prioritise the various issues raised by this consultation?
Clinical management This is about the recognition and a generalist's management of patients' problems.	What might indicate that Precious is being abused or coerced into sex work? Is Precious at risk of any other health problems? What counselling options are available locally for women who cannot decide whether to proceed with a pregnancy or have a termination? What conflicts of interest might these counselling services have?
Medical complexity This is about aspects of care beyond the acute problem, including the management of comorbidity, uncertainty, risk and health promotion.	What health promotion opportunities does this consultation present? How do I prevent another unwanted pregnancy in the future? How do I address STI testing, HIV testing, cervical screening, future contraception and any underlying psychosocial or sexual issues with this patient?
Team working This is about working effectively with others to ensure good patient care and includes sharing information with colleagues and using the skills of a multiprofessional team.	What other resource, services and healthcare professionals could I involve in the management of this case? Do local pregnancy termination services provide post-termination contraception or STI screening?
Performance, learning and teaching This is about maintaining the performance and effective CPD of oneself and others. The evidence for these activities should be shared in a timely manner within the portfolio.	What is my plan for keeping up to date with current management of STIs and contraceptive choices? What are the current local and national priorities in the area of sexual health?

Organisation, management and leadership This is about understanding how primary care is organised within the NHS, how teams are managed and the development of clinical leadership skills.	How do I record sensitive information in the notes? What is the local referral pathway for women requesting an abortion?
Holistic practice, health promotion and safeguarding This is about the ability of the doctor to operate in physical, psychological, socio-economic and cultural dimensions. The doctor is able to take into account the patient's feelings and opinions. The doctor encourages health improvement, self-management, preventative medicine and shared care planning with patients and their carers. The doctor has the skills and knowledge to consider and take appropriate safeguarding actions.	Am I aware of the particular health needs of refugees and asylum seekers? Are there any local services specifically supporting these population groups? What might be the psychological impact of repeated abortion? How do we make our practices more welcoming for either gender to discuss their sexual health problems?
Community health and environmental sustainability This is about the management of the health and social care of the practice population and local community. It incorporates an understanding of the interconnectedness of health of populations and the planet.	If I was looking to evaluate and develop my local sexual health services, how would I begin to do this? Does this case highlight an unmet need in the local community or health service? Am I adequately informed on the issue of modern slavery?

How to learn this area of practice

Work-based learning

Primary care is the best place for a GP registrar to learn how to manage sexual health because it is where the vast majority of patients present. Patients will present their concerns and symptoms at varying stages of the natural history. Experience gained under the supervision of an experienced GP, with an opportunity to discuss and reflect on cases, will build expertise in this area.

Some GP specialty training programmes contain placements of varying length with sexual health or family planning clinics. These placements will help you to: see concentrated groups of patients and learn about sexual health issues involving men and women, including transgender patients; become proficient in history-taking and clinical examination in this field; and become familiar with the management of common problems. For GP registrars without a dedicated sexual health placement, it would be worthwhile to arrange to attend some sessions at one of these clinics.

Self-directed learning

You can find eLearning module(s) relevant to this topic guide at elearning for healthcare. The RCGP eLearning site also offers sexual health modules.

Many postgraduate deaneries provide their own courses on sexual health problems.

Other providers include British Association for Sexual Health and HIV (BASHH), which offers the STI Foundation Course (STIF), and the Faculty of Sexual and Reproductive Healthcare (FSRH). The FSRH offers a comprehensive course consisting of eLearning modules, small group work and practical training, leading to the award of the Diploma of the Faculty of Sexual and Reproductive Healthcare (DFSRH). Interested GP registrars can also obtain letters of competence in subdermal implants (LoC SDI) and intrauterine techniques (LoC IUT). Both BASHH and the FSRH have clinical guidance available on their websites.

Learning with other healthcare professionals

As a GP registrar it is essential that you understand the variety of services provided in the community. Joint learning sessions with practice nurses and specialist colleagues in sexual health clinics will help you gain a greater understanding of both the services provided locally and the need for cross-agency communication and partnership working.

Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- Appropriate use of LARC for different scenarios
- Investigation of vaginal discharge
- Diagnosis of genital skin abnormality

Simulated Consultation Assessment (SCA)

- Phone call: a father wants advice on how to react to his 12-year-old son, who has doubts about his gender identity
- A 25-year-old man attends with unilateral swollen and painful testis

- A 31-year-old mother of two children requests help with low libido

Workplace-based Assessment (WPBA)

- Consultation Observation Tool (COT) about contraception for a teenager who has infant twins and is having unprotected intercourse
- Observed clinical examination and procedural skills (CEPS) on genital examinations for men and women
- Learning log on health promotion in a patient under 25 years of age for STIs

Smoking, alcohol and substance misuse

About this topic guide

This topic guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you understand important issues relating to smoking, alcohol and substance misuse. It also contains tips and advice for learning, assessment and continuing professional development (CPD), including guidance on the knowledge relevant to this area of general practice. Key learning points are illustrated with a case scenario and questions.

Each topic guide is intended to illustrate important aspects of everyday general practice, rather than provide a comprehensive overview of each clinical topic. It should therefore be considered in conjunction with other topic guides and educational resources. Smoking affects almost all the disease areas for which GPs are responsible, and knowledge about specific body systems and diseases affected by smoking is covered in the relevant topic guides (see, for example, the *Cardiovascular health* and *Respiratory health* guides). The sections below relate more to the general use of tobacco – in particular, effective smoking cessation treatment.

The knowledge and skills required to manage smoking, and those for managing alcohol and substance misuse, are listed in separate sections for clarity, although they frequently overlap. 'Service issues' and 'Additional important content' remain common to both areas.

The role of the GP in smoking, alcohol and substance misuse

All GPs have a responsibility to provide both holistic general medical care and specific treatment for people who smoke or have alcohol or substance misuse problems. As a GP, your role is to:

- recognise that smoking, alcohol, and substance misuse are common problems in the community and understand their relationship to disease and premature death
- understand that harmful use of alcohol and other substances is often unrecognised and can take a range of forms (including regular excessive use, binges and dependency)
- identify and offer interventions, including advice and treatment, to people who smoke or misuse alcohol or other substances
- refer to and develop partnerships with wider local services
- recognise and manage medical consequences of smoking, alcohol and substance misuse
- recognise the importance of holistic care and management for patients with substance or alcohol misuse
- be aware of wider social issues, including the need to protect children and family members from the potential impact of smoking, alcohol or substance misuse, and respond to any safeguarding concerns

- appreciate that helping people to stop smoking or overcome alcohol and substance misuse, while challenging at times, can be very rewarding for the doctor and life-changing for the patient
- be non-judgemental in your approach to managing patients that smoke and people with alcohol and substance misuse problems, as they can often be stigmatised by society and health professionals.

Emerging issues in smoking cessation, alcohol and substance misuse

E-cigarettes are increasingly used to aid smoking cessation. Ongoing research into the safety of e-cigarettes and their use for smoking cessation is underway. As a GP you should be aware of the latest evidence and guidance on e-cigarettes, and smoking cessation more generally, and use your clinical judgement on an individual patient basis.

Dependence on over-the-counter, internet-acquired or prescribed medication is a growing problem, particularly involving anabolic steroids, analgesics (such as opioids and gabapentinoids), antidepressants, benzodiazepines, stimulants and z-drugs.[34,35] Misused 'prescription-only' drugs are increasingly being obtained through illegal street sales. As people live longer, and patients are successfully treated, doctors are facing increasing complexity in managing long-term alcohol and substance misuse in the context of ageing patients with multiple comorbidities.

Knowledge and skills guide

Smoking

Within the context of primary care, consider the theoretical and practical aspects of the following.

- Types of tobacco (such as cigarettes, chewing tobacco, hookah)
- Health effects of tobacco, including:
    - its effects on the body
    - as a risk or causative factor for a range of diseases (for example, cardiovascular, respiratory, metabolic)
    - morbidity in people with established diseases
    - its impact on the mental health of individuals and their wider social network
    - in specific groups (such as pregnant women, adolescents)

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[34] Davies J, Rae TC and Montagu L. Long-term benzodiazepine and Z-drugs use in England: a survey of general practice. British Journal of General Practice 2017; 67(662):e609–e613. https://doi.org/10.3399/bjgp17X691865

[35] British Medical Association. Prescribed drugs associated with dependence and withdrawal (2015, updated 2024). www.bma.org.uk/what-we-do/population-health/improving-care-and-peoples-experience-of-services/prescribed-drugs-associated-with-dependence-and-withdrawal

    - risks of passive smoking
- Tobacco dependence and why people struggle to stop smoking
- Nicotine addiction (including risk factors) and withdrawal (including physical and psychological symptoms)
- Relationship between tobacco use and socio-economic status
- The concept of compensatory smoking, especially related to cutting down as a harm-reduction technique
- Assessment of the individual, including relevant focused physical and mental health examinations and investigations (such as carbon monoxide testing, spirometry, chest X-ray) where appropriate
- Benefits of cessation, including:
    - in the prevention of conditions such as chronic obstructive pulmonary disease (COPD), cardiovascular disease (CVD) and cancer
    - first-line treatment for long-term conditions such as COPD in improving morbidity in conditions such as lung cancer
- Treatment of tobacco dependence, including:
    - pathways to successful quitting and their effectiveness
    - theory and practice of evidence-based primary care strategies for smoking cessation (such as brief interventions, Very Brief Advice)
    - pharmacotherapy for smoking cessation (including nicotine replacement therapy (NRT), varenicline, buproprion)
    - the role of e-cigarettes in smoking cessation
    - the role of behavioural support in smoking cessation
- Conversations with smokers in the GP consultation

Alcohol and substance misuse

For each substance problem, consider the following areas within the general context of primary care:

- the natural history of the untreated condition, including whether acute or chronic
- the prevalence and incidence across all ages and any changes over time
- typical and atypical presentations
- recognition of normal variations throughout life
- risk factors, including lifestyle, socio-economic and cultural factors
- diagnostic features and differential diagnosis
- recognition of ‘alarm’ or ‘red flag’ features
- appropriate and relevant investigations
- interpretation of test results
- management, including self-care, initial, emergency and continuing care, chronic disease monitoring
- patient information and education, including self-care
- prognosis.

Symptoms and signs

Alcohol and substance misuse in primary care may present directly or indirectly, including through third-party concerns, for example, from a friend, family member or school. As a GP you should be alert to a wide range of possible presentations of alcohol or substance misuse. These include:

- accidents and injuries occurring while under the influence of drugs or alcohol
- behavioural changes such as neglecting other activities, poor hygiene, secrecy, self-neglect and social withdrawal
- drug-seeking behaviour (including criminal activity, diversion of prescribed medication, neglecting children, risk-taking behaviour, sex work)
- intoxication
- increasing use of substance
- malnourishment
- mental health problems related to substance misuse, including mood disorders, post-traumatic stress disorder (PTSD) and psychosis
- overdose – accidental or intentional, such as opioid overdose and how to treat it
- poor oral hygiene
- social consequences of substance misuse, such as contact with the criminal justice system (including incarceration), domestic violence, homelessness, poor attendance or functioning at school or work, relationship issues, safeguarding concerns, unemployment
- signs of dependency: neglecting other aspects of life to be able to support dependency (for example, other health conditions, unable to keep job, home circumstances)
- signs of alcohol liver disease: ascites, confusion, hematemesis, jaundice, melena, features of Wernicke-Korsakoff syndrome
- signs and symptoms of medical conditions related to substance misuse, including cachexia and weight loss, chest pain, cough, fever, injection site problems, jaundice, limb erythema, pain or swelling, respiratory depression, shortness of breath
- signs and symptoms of withdrawal and potential life-threatening consequences, such as shakes or delirium tremens (DT), feeling feverish, confusion, fits.

Common and important conditions

Dependent and non-dependent misuse of alcohol and substances, and the effects and risks of misuse (short-term and long-term, medical and non-medical), including:

- common effects of the main problem drugs, including anabolic steroids, antidepressants, benzodiazepines, cannabis, cocaine, gabapentinoids, new psychoactive substances (NPS), opiates, solvents, stimulants and z-drugs
- complications of alcohol and substance misuse in pregnancy, including fetal alcohol spectrum disorder (FASD), growth retardation, neonatal withdrawal and preterm delivery. Antenatal care for women misusing substances and alcohol,

including involvement of social services and safeguarding of unborn children if required
- crises occurring in relation to substance and alcohol misuse, including intoxication, mental health emergencies, overdose, safeguarding emergencies, trauma and withdrawal
- medical complications of substance misuse, including:
    - infections
        - local infection in injecting drug misuse: cellulitis and abscess
        - systemic infection directly related to injecting drug misuse, including blood-borne viruses (BBVs) (hepatitis B and C and human immunodeficiency virus (HIV)) and endocarditis
        - opportunistic infection, including tuberculosis (TB)
    - malnutrition
    - nasal and respiratory symptoms secondary to nasal substance (such as cocaine) use
    - non-infective cardiac complications, for example, acute coronary syndrome, arrhythmia, ischaemic heart disease
    - venous thromboembolic disease
- medical complications of long-term alcohol misuse, including:
    - alcoholic liver disease including ascites, cirrhosis, pancreatitis, portal hypertension and varices
    - common health conditions where alcohol use may be a contributing factor, including cancer and hypertension
    - neurological complications, including encephalopathy, peripheral neuropathy and Wernicke-Korsakoff syndrome
    - malnourishment, including vitamin deficiencies
- misuse of prescribed and over-the-counter medications
- polysubstance abuse of drugs and combined misuse of drugs and alcohol
- mental health problems in the context of alcohol and substance misuse, including dual diagnosis and 'self-medication' of mental health problems with drugs or alcohol
- tolerance, dependence and withdrawal
- methadone prescribing.

Examinations and procedures

- Assessment of alcohol problem-drinking to assess the nature and severity of misuse
- Assessment of social circumstances and functioning of alcohol and substance misusers
- Substance misuse assessment, including identifying substances used, quantity, frequency and pattern of use, routes of administration, sources of drugs and evidence of dependence
- Injection site assessment
- Mental health assessment

- Relevant physical examinations (including cardiovascular and abdominal examination and examination for stigmata of chronic liver disease)

Investigations

- Assessment of liver damage due to alcohol misuse, including blood tests and imaging
- Blood tests, including for BBVs (hepatitis B and C and HIV), full blood count, haematinics, liver function, renal function, thyroid function
- Electrocardiogram (ECG) monitoring of QT interval in methadone prescribing
- Evidence-based screening tools to identify alcohol misuse, such as AUDIT-C
- Near-patient testing for drug misuse
- Methods for testing for illicit drug misuse, such as urine testing

Service issues

- Barriers to care and difficulties in co-ordinating care. Particular challenges relating to individuals who are chaotic, homeless or in contact with the criminal justice system
- Coordinated care and partnerships with the wider healthcare team and other agencies, including public health, addictions specialists, criminal justice system, dentists, homeless services, mental health teams, pharmacies, social services, voluntary sector
- Local arrangements for smoking cessation, drug or alcohol detoxification and rehabilitation
- Local patterns and prevalence of smoking, alcohol and substance misuse
- Opportunistic and planned general medical care and health promotion for smokers and alcohol or substance misusers, including chronic disease care, contraception, general health promotion, safe sex advice, screening processes such as cervical screening, smoking cessation advice
- Public health, policymaking and commissioning in relation to tobacco control, alcohol and substance use (see also the *Population and planetary health* topic guide)
- Relevant local and national guidelines, standards and legislation
- Role of the primary care team in interventions
- Support for the families of those misusing alcohol or substances, in particular children, partners and parents, including signposting to support services and other resources such as third sector and charities

Additional important content

- Behaviour change, including psychosocial interventions
- Driving regulations (Driver and Vehicle Licensing Agency (DVLA) guidance) in relation to drug and alcohol use (including prescribed and over-the-counter drugs) and the responsibility of the GP in relation to this

- Harm reduction in alcohol and substance misuse, including needle exchanges, patient education, safer injecting education, sharps bins
- Impact of parental alcohol and drug misuse, including ability to function as a parent, domestic violence, safeguarding concerns, funding of drug habit, storage of drugs and paraphernalia
- Impact of parental smoking on children (for example, sudden infant death syndrome (SIDS), asthma)
- Particular considerations regarding children and young people who smoke or misuse alcohol or drugs, including risk of grooming or abuse
- Preventing drug-related deaths, including identifying patients at high risk, local knowledge relating to drug supplies, identifying and treating overdose and withdrawal (role of naloxone), patient education, safe substitute prescribing
- Prevention, screening or treatment of medical complications related to alcohol or substance misuse (such as treatment of BBVs, thiamine supplementation, vaccination against hepatitis A and B)
- Relapse prevention strategies, including psychosocial and pharmacological methods, and management of continued smoking or alcohol and drug misuse among patients
- Risk minimisation strategies and safe prescribing (such as benzodiazepines, analgesics, NRT)
- Risks to general health while misusing drugs and alcohol (such as smoking, risky sexual activity, non-participation in screening programmes, neglect of chronic disease care, poor nutrition)
- The concept of 'street slang' terms for drugs and how they are used
- Substitute prescribing of heroin with methadone and buprenorphine – medical, legal, practical and safety aspects, including shared care with addictions services

Case discussion

Olivia Bell is a 29-year-old woman who is living in a local homeless hostel. Her support worker has encouraged her to come and see you because she has noticed that Olivia has become more withdrawn, is neglecting her personal hygiene and seems to be drinking more alcohol.

Having established a rapport with Olivia, she tells you she is drinking around eight cans of cider a day. She has also started injecting heroin again and is using cocaine. She is working as a sex worker to fund her habit. She tells you that she grew up in care, had a child when she was 18 who was taken into care at birth and has since had three pregnancies terminated. A recent partner subjected her to domestic violence. She tells you she has a criminal record for multiple episodes of shoplifting, which makes it very difficult to get employment.

Olivia tells you she is ready to try to address her alcohol and substance misuse and would like help for this. You refer her to the local addictions service, where she is seen under a shared care arrangement.

Things seem to be going reasonably well over the next six months, but then Olivia fails to keep appointments with you and eventually turns up in your surgery two months later demanding to be seen urgently. She tells you she has started drinking again and that this is in response to the news that her hostel is being closed due to lack of funding and she is worried about where she will live. She is requesting a script for an alcohol detox.

Questions

These questions are provided to prompt you to consider the key points of the case. They can form the basis for a case-based discussion with your educational supervisor and will assist you in writing reflective entries in your ePortfolio. The questions are examples to trigger reflection and are not intended to be comprehensive.

Core capabilities	Questions
Fitness to practise This is about professionalism and the actions expected to protect people from harm. This includes the awareness of when an individual's performance, conduct or health, or that of others, might put patients, themselves or their colleagues at risk.	How do I feel about treating persistent drug and alcohol misusers? How do I feel towards patients who seem to be spurning my attempts to help them? Am I at risk of alcohol or substance misuse myself?
An ethical approach This is about practising ethically with integrity and a respect for equality and diversity.	What would I do if I knew Olivia was driving a car while under the influence of drugs and alcohol and refused to stop driving? How do I engage with the issue around Olivia's criminal record and the challenges that poses to employment opportunities? What do I feel about her work as a sex worker to fund her habit?
Communicating and consulting This is about communication with patients, the use of recognised consultation techniques, establishing and maintaining patient partnerships, managing challenging consultations, third-party consulting, the use of interpreters and consulting modalities across the range of in-person and remote methods.	What strategies can I use to develop an effective therapeutic relationship with Olivia? What skills can I use to motivate Olivia towards making positive changes? Do I have to alter my consultation style to cope when I think patients might be deceiving me – such as to persuade me to issue prescriptions for medications that they might intend to misuse or sell?

Data gathering and interpretation This is about the gathering, interpretation and use of data for clinical judgement, including information gathered from the history, clinical records, examination and investigations.	How do I assess and quantify cigarette use and drug and alcohol misuse? How do I assess risks of pregnancy, sexually transmitted infection (STI), HIV and hepatitis B and C with Olivia? How do I assess 'readiness to change'? Do I need to think about offering contraception or sexual health advice?
Clinical examination and procedural skills This is about clinical examination and procedural skills. By the end of training, the GP registrar must have demonstrated competence in general and systemic examinations of all the clinical curriculum areas, including the five mandatory examinations and a range of skills relevant to general practice.	How would I assess acute confusion in a patient with known chronic liver disease? Am I confident in identifying acute alcohol withdrawal in a patient?
Decision-making and diagnosis This is about having a conscious, organised approach to making diagnosis and decisions that are tailored to the particular circumstances in which they are required.	Which of Olivia's problems are the most damaging to her health? As a GP, how do I prioritise the actions needed to address Olivia's problems? How do I assess any safeguarding concerns this case may raise? How do I assess if a request for a community alcohol detoxification is appropriate? How do I follow up a patient who has a chaotic lifestyle and may not engage in follow-up?
Clinical management This is about the recognition and a generalist's management of patients' problems.	How do I balance risks in deciding Olivia's management plan? Am I aware of the safety issues around methadone use in substitute prescribing? Do I know how to treat tobacco addiction? In what ways is it similar to, or different from, addiction to other drugs and alcohol?

Medical complexity This is about aspects of care beyond the acute problem, including the management of comorbidity, uncertainty, risk and health promotion.	Which of Olivia's issues can I deal with – and which are beyond the scope of a GP? How do I cope when patients present with multiple issues, many of which are not medical, and which are likely to take much longer than a 10-minute consultation?
Team working This is about working effectively with others to ensure good patient care and includes sharing information with colleagues and using the skills of a multiprofessional team.	Which support services are available in my area to help patients and families affected by substance and alcohol misuse? What factors determine good 'shared care' in smoking cessation, drug and alcohol services? What are the challenges of providing this?
Performance, learning and teaching This is about maintaining the performance and effective CPD of oneself and others. The evidence for these activities should be shared in a timely manner within the portfolio.	How can I learn about the substance misuse problems particular to my locality? How can I keep up to date with current substances of misuse and how they are used? What activities might help me reflect on uncomfortable issues and feelings raised by patients like Olivia?
Organisation, management and leadership This is about understanding how primary care is organised within the NHS, how teams are managed and the development of clinical leadership skills.	How do I help the practice reception team cope with patients like Olivia, who can be challenging and make unreasonable demands of medical receptionists? How can we help individuals like Olivia, who are often chaotic, to make best use of primary healthcare? Do we have systems in place to offer health checks and appropriate monitoring and immunisation to substance and alcohol users?

Holistic practice, health promotion and safeguarding This is about the ability of the doctor to operate in physical, psychological, socio-economic and cultural dimensions. The doctor is able to take into account the patient's feelings and opinions. The doctor encourages health improvement, self-management, preventative medicine and shared care planning with patients and their carers. The doctor has the skills and knowledge to consider and take appropriate safeguarding actions.	Olivia is likely to be moving on to new accommodation, or the streets, soon – what impacts does the transient nature of her difficult living situation have on her healthcare provision? What steps can be taken to try and improve this situation for her? How might the inverse care law apply in provision of healthcare to someone like Olivia?
Community health and environmental sustainability This is about the management of the health and social care of the practice population and local community. It incorporates an understanding of the interconnectedness of health of populations and the planet.	How do I feel about funding cuts to local services such as stop smoking services or homeless hostels? What response might be appropriate in my role as a local GP? As a GP, in what ways can I be involved in helping vulnerable young people to reduce the risk of them becoming involved in substance and alcohol misuse?

How to learn this area of practice

Work-based learning

There is no substitute for actually working with patients with substance and alcohol problems or tobacco dependence to learn how to provide good care in often challenging situations. As a GP registrar, you should spend time observing a more experienced GP and then, under proper supervision, take on your own primary care patients with these problems. By doing so you will come into contact with a broad range of service providers and develop an understanding of how the treatment system should work– and how often it does not. You will also become familiar with wider health and psychosocial issues that often exist in the context of smoking, alcohol and substance misuse.

A placement in a specialist substance or alcohol service, either residential or in the community, would provide valuable experience. Unfortunately, few placements of this type are available, however a placement in general adult psychiatry should give you some exposure to substance and alcohol problems, as well as invaluable general psychiatric training. Time spent with other providers of care in the field of smoking

cessation, alcohol and substance misuse, including those from non-statutory agencies and independent sector providers, can help you to get a broader overview of available services.

Self-directed learning

You can find an eLearning module(s) relevant to this topic guide at elearning for healthcare and at the RCGP eLearning website.

In addition to eLearning resources on this area, the RCGP has produced a policy statement on the use of e-cigarettes[36].The National Centre for Smoking Cessation and Training (NCSCT) is funded by Public Health England to support the delivery of effective evidence-based tobacco control programmes and smoking cessation interventions and provides a range of resources. The Royal College of Physicians (RCP) has also produced a number of reports on the subject[37].

The *Drug misuse and dependence: UK guidelines on clinical management* (2017) provide a comprehensive overview of this field (sometimes referred to as 'The Orange Book'). You will find it informative to find out more about mutual aid groups such as Alcoholics Anonymous, Narcotics Anonymous and SMART Recovery from their websites and if possible by attending open meetings. Local and regional groups for doctors with a special interest in addictions also exist, which you may find useful to attend. Talk To Frank is a drug education service aimed at patients, but has useful information about different drugs, their appearance, street names, mode of use, effects and dangers. As in other areas the RCGP eLearning website has several modules covering this topic. GP registrars should be able to bring interesting and complex cases to tutorials and peer group meetings.

Learning with other healthcare professionals

Effective tobacco control requires multidisciplinary approaches at the level of both the population and the individual; therefore a number of professionals and teams will be involved in smoking cessation interventions. As a GP registrar you should spend time with members of the primary care team trained in smoking cessation and find out more about your local model of delivery for NHS smoking cessation.

In relation to drug and alcohol misuse, the certificate courses mentioned in 'Formal learning' are multidisciplinary and so provide an excellent insight into other professionals and workers in the field. The RCGP's annual *Managing addictions in primary care* conference is well attended by many different professionals, workers and service users. Some regions have multidisciplinary learning meetings.

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[36] https://www.rcgp.org.uk/representing-you/policy-areas/e-cigarettes

[37] For example, https://www.rcp.ac.uk/policy-and-campaigns/policy-documents/e-cigarettes-and-harm-reduction-an-evidence-review/

Formal learning

There are several opportunities (such as through courses and conferences) to learn how to deliver effective smoking cessation interventions in a GP setting. These may be accessed via your GP specialty training scheme, the RCGP and other organisations such as the NCSCT and RCP.

The RCGP Part 1 Certificate in the Management of Drug Misuse is well worth doing even if you do not envisage developing a special interest in this field. The Part 2 certificate is especially useful if you wish to develop a special interest, become a GP with an Extended Role (GPwER) and/or participate in local shared care schemes and enhanced services.

The Certificate in the Management of Alcohol Problems in Primary Care is also valuable for all GPs. Details are available in the mental health toolkit on the RCGP eLearning website.

Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- Psychological and physical effects of alcohol misuse
- Signs and symptoms of substance misuse in adults and children
- Health promotion for smokers and substance misusers

Simulated Consultation Assessment (SCA)

- A bus driver asks for help to break his habit of heavy drinking
- A final-year school student complains of irritability and low mood likely to be associated with his regular marijuana use
- Two A&E notifications: two falls while inebriated. The woman cares for her grandchildren but denies drinking when she is responsible for them

Workplace-based Assessment (WPBA)

- Case-based Discussion (CbD) about a woman who is concerned about her husband's alcohol intake and subsequent violent behaviour
- Consultation Observation Tool (COT) about a young woman who wishes to stop smoking
- Log entry about your understanding of the local drug and alcohol service following a patient's referral
- Clinical examination and procedural skills (CEPS) relating to clinical examination of a patient with possible venous thrombosis from self-injection

Urgent and unscheduled care

About this topic guide

This topic guide explores part of the RCGP curriculum, *Being a General Practitioner*. It will help you understand important issues relating to the care of people presenting in the urgent and unscheduled care context by illustrating the key learning points with a case scenario and questions. It also contains tips and advice for learning, assessment and continuing professional development (CPD), including guidance on the knowledge relevant to this area of general practice.

Each topic guide is intended to illustrate important aspects of everyday general practice, rather than provide a comprehensive overview of each clinical topic. It should therefore be considered in conjunction with other topic guides and educational resources.

The role of the GP in urgent and unscheduled care

As a GP, your role is to:

- make the patient's safety a priority. Recognise patients with urgent needs and act promptly and effectively to ensure correct and timely treatment and reduce the risk of death or morbidity
- meet the additional challenge of gathering information and communicating effectively, professionally and sensitively with patients, carers and family members in urgent and unscheduled care contexts. This includes accurately assessing a patient who may be acutely ill through telephone, video, online and face-to-face consultations
- coordinate care with other services and professionals (such as ambulance service, community nurses and secondary care) and follow agreed protocols where appropriate, ensuring appropriate referral or follow-up where necessary
- apply legal frameworks in urgent situations where you may need to make decisions for the patient's overall benefit (sometimes known as 'best interests'). Consider the appropriateness of interventions according to the patient's wishes, the severity of the illness, any comorbid diseases and best evidence, while managing any differences of opinion with and between relatives and carers
- offer patients and carers tailored advice on self-management, including when and who to call for help if their problem worsens or does not follow the expected course of recovery ('safety-netting').

Emerging issues in urgent and unscheduled care

The provision of urgent and unscheduled care is becoming increasingly diverse across the four UK nations and services in one area may differ substantially from another. It is

therefore important that the experience attained and capabilities developed during training are sufficient to work in a variety of urgent and unscheduled care contexts.

The models for delivering urgent and unscheduled care (UUC) in different communities and regions are changing, and it is important to stay up to date with your local arrangements. Within UUC, there is an increasing focus on the delivery of integrated multiprofessional care in the most appropriate setting, with more care being provided 'closer to home' or in the home itself. This requires a more flexible and team-based approach.

Reviews of the urgent and emergency care (UEC) system[38] and subsequent reports have outlined five key elements to be developed in relation to UUC:

1. Provide better support for self-care
2. Help people to get the right advice or treatment in the right place, first time
3. Provide a highly responsive urgent care service outside of hospital
4. Ensure that those people with more serious or life-threatening emergency needs receive treatment in centres with the right facilities and expertise
5. Connect the whole UEC system together through networks.

Specifically, national priorities for UEC include focus on simplifying access for the public, improved mental health care, development of NHS 111 and triage services and increasing patient access to primary care through online tools and apps. Skills and capabilities required through training will increasingly need to be applied to these new contexts and may include calculation and interpretation of clinical prediction tools for severe illness (such as early warning scores).

Knowledge and skills guide

For each problem or disease, consider the following areas within the general context of primary care:

- the natural history of the untreated condition, including whether acute or chronic
- the prevalence and incidence across all ages and any changes over time
- typical and atypical presentations
- appropriate application of infection control principles, including the use of personal protective equipment (PPE)
- recognition of normal variations throughout life
- risk factors, including lifestyle, socio-economic and cultural factors
- diagnostic features and differential diagnosis
- recognition of deterioration, 'alarm' or 'red flag' features
- appropriate and relevant investigations

38 https://www.england.nhs.uk/publication/delivery-plan-for-recovering-urgent-and-emergency-care-services/

- interpretation of test results
- management, including self-care, initial, emergency and continuing care, chronic disease monitoring
- patient information and education, including self-care and 'safety-netting'.

Symptoms and signs

- Symptoms and signs of acute illness in adults, including patients with learning disabilities, dementia or other communication problems
- Symptoms and signs of the acutely ill child (see also the RCGP *Children and young people* topic guide)
- Symptoms that may indicate an acute exacerbation of a chronic disease
- Chronic or comorbid diseases, risk factors and treatments that can influence the incidence and presentation of acute illnesses
- Important symptoms and signs that may indicate severe illness, but which may be produced by other, less severe illnesses, and strategies to avoid missing those severe illnesses when not obvious at initial presentation (for example, viral symptoms in a child should not exclude the recognition of sepsis)
- Factors that may alter the presentation of symptoms and signs of severe illness, particularly when there are limitations to immune competency (including pregnant women, infants, very elderly people or those who are immunosuppressed)
- Factors suggestive of a high risk of harm to self or others
- Features of severe or life-threatening injuries
- Features of serious illnesses that require an immediate response. Examples include:
    - cardiovascular: chest pain, abnormal pulses (arrhythmias, bradycardia, tachycardia), hypertension, dyspnoea, oedema, hypotension, dizziness, syncope, vascular compromise, haemorrhage
    - central nervous system: reduced conscious level, seizures, dizziness, confusion, loss of sensation or function, cerebellar and vestibular dysfunction, weakness, spasticity, paraesthesia, speech and language deficits, headache, visual problems including reduced acuity, diplopia, pupillary abnormalities, visual field defects, ophthalmoplegia
    - digestive: abdominal pain, dysphagia, melaena, bloody diarrhoea, haematemesis
    - endocrine: lethargy, polyuria, polydipsia, pain
    - renal: dehydration, anuria or oliguria
    - mental health: abuse, self-harm, psychosis, delusional states, substance misuse
    - respiratory: wheeze, dyspnoea, stridor, drooling, choking, respiratory distress and respiratory failure, cyanosis, hypoxia, tachypnoea, low oxygen saturations, low peak flow, chest pain, haemoptysis, swelling of face or tongue
    - sepsis: tachypnoea, hypotension, and altered mentation, fever, rashes and meningism.

When providing UUC, it is especially important to consider how acute illness and distress can affect communication, as well as the emotional effect this has on patients, carers and healthcare professionals.

Common and important conditions

- 'Dangerous diagnoses' – these are conditions that always require urgent action if they are suspected. Some important examples include:
    - acute psychosis or mania
      aneurysms
    - Appendicitis
    - cancer (for example, hypercalcaemia, neutropenic sepsis, spinal cord compression, superior vena cava obstruction)
    - intestinal obstruction or perforation
    - limb ischaemia
    - meningitis
    - serious suicide risk
    - mental health, including crisis
    - myocardial infarction
    - pregnancy-related issues, including ectopic
    - pulmonary embolus
    - sepsis
    - stroke or cerebrovascular accident (CVA)
    - subarachnoid haemorrhage
- Emergency conditions where the underlying diagnosis may not be known (such as anaphylaxis, choking, loss of consciousness, cardiorespiratory arrest)
- Emergencies that may occur in relation to certain healthcare activities (for example, anaphylaxis or allergic reaction after immunisation, local anaesthetic toxicity, vasovagal episodes)
- Emergencies arising in patients receiving palliative or end-of-life care (see the RCGP topic guide *People at the end of life*)
- Multifactorial problems associated with patients who live alone and/or with multiple comorbidities, particularly older adults with an acute presentation who may be frail and have both social and medical care needs
- Conditions associated with social, cultural and lifestyle factors that influence the incidence, severity and presentation of acute illnesses (such as delayed presentation and increased mental distress in some cultures in relation to certain illnesses that may be considered stigmatising,; or acute illness relating to omitting medication during periods of religious fasting)
- Death (both expected and unexpected) including the assessment and confirmation, and the legal requirements

Examinations and procedures

- Basic life support (BLS) skills, including performing cardiopulmonary resuscitation (CPR), using automated external defibrillators (AEDs) and giving emergency drugs

- Examination of the relevant system or body part as appropriate
- Mental state examinations and risk assessments to ensure the safety of others
- Giving emergency or urgent medications in primary care, including oxygen, adrenaline, glyceryl trinitrate (GTN), intramuscular or subcutaneous injections, inhalers and nebulisers

Investigations

- Electrocardiogram (ECG) interpretation
- Recognise and differentiate between patients who require urgent investigation, patients who can wait longer for a routine investigation and those where time should be used as a diagnostic tool
- Near-patient blood testing (such as glucose, haemoglobin, C-reactive protein (CRP), D-dimer)
- Peak flow measurement and interpretation
- Urinalysis tests, including pregnancy test
- Vital signs measurement, including respiratory rate, blood pressure and oxygen saturation

Service issues

- Knowledge of how to access the key services, organisations and professionals, both in the community and in secondary care, who provide unscheduled care for patients in and out of hours, to organise effective care in the most appropriate location for the patient
- Familiarity with available prescribing options, medicines and equipment in the workplace, and car or bag and maintenance of appropriate equipment and drugs
- Local and national protocols and decision support systems for urgent care (such as National Institute for Health and Care Excellence (NICE), Clinical Knowledge Summaries (CKS) and Scottish Intercollegiate Guidelines Network (SIGN) guidance)
- Options available to enable timely review of acutely ill patients to monitor their condition and determine changes to initial management plans
- Options available to maintain continuity of care for a patient undergoing an episode of acute illness, including appropriate communication between team members. This includes access to the patient's medical records and other relevant information about them
- The importance of providing appropriate documentation and records for each patient contact, which must be communicated to the next professional involved with that patient
- Appropriate use of emergency services, including the logistics of communicating with an ambulance or paramedic crew and the response time required
- Strategies for ensuring effective and appropriate communication and escalation of concern regarding deteriorating patients to ambulance services, the emergency department (ED) or accident and emergency (A&E) and acute service colleagues

- Clinical, administrative and pastoral support that a GP needs to provide at times of crisis or bereavement (including certification of illness or death)
- Approaches for managing patients who may make inappropriate or frequent demands on the health service (for example, because of a disorganised lifestyle or mental health disorder)
- The role of integrated care systems in commissioning UUC in your community
- The administrative and operating processes for the urgent care organisations you may be working in. These include:
    - information technology (IT) systems, including electronic patient records
    - the process for recording and transmitting information about patients and the outcomes of any contact with them
    - the communication systems used by the organisation, particularly regarding an urgent or deteriorating patient

Additional important content

- Knowledge of how to access and use the processes and procedures in place to ensure patient safety in the urgent care setting (such as clinical governance, quality control and health and safety)
- The medico-legal issues and indemnity requirements for the UUC you provide
- The importance of positive, caring and respectful attitudes to the patients, carers and colleagues with whom you work in urgent care contexts, many of whom you may not have met before
- Processes for reporting and analysing significant and untoward events relating to acutely ill patients

Case discussion

You are working in an urgent care clinic. You take a phone call from a father who is worried about his four-year-old daughter, Jana Petrov, who has 'tummy pain'. He tells you they have recently moved to the UK from Russia and that he has already consulted another GP earlier the same day who diagnosed an upper respiratory tract infection with mesenteric adenitis.

The father has a thermometer at home and reports that Jana's temperature is now 39.6°C. He is worried because she has not recovered since her appointment earlier and he asks you to prescribe some antibiotics for him to collect from a nearby pharmacy, as he has no car and feels Jana is too unwell to bring to the clinic in a taxi or on the bus.

Questions

These questions are provided to prompt you to consider the key points of the case. They can form the basis for a case discussion with your educational supervisor and will assist you in writing reflective entries in your ePortfolio. The questions are examples to trigger reflection and are not intended to be comprehensive.

Core capabilities	Questions
Fitness to practise This is about professionalism and the actions expected to protect people from harm. This includes the awareness of when an individual's performance, conduct or health, or that of others, might put patients, themselves or their colleagues at risk.	Would my approach to the management of this child vary at different times of the day (for example, if the call was made at lunchtime or midnight, or at the start or end of my shift)? Why and how might this affect my behaviour? If Jana's father was a regular patient I knew well, how might my management be different? Would my approach to the management of this child differ if I had previous experience of a significant event or complaint from a similar case?
An ethical approach This is about practising ethically with integrity and a respect for equality and diversity.	Do I think that a doctor who is a parent would manage this situation differently from a doctor who has no children? What are my attitudes towards parents and families of a different social class or general educational achievement to my own? What experiences have I had of patients from a different ethnic background? How might my practice change as a result of this?
Communicating and consulting This is about communication with patients, the use of recognised consultation techniques, establishing and maintaining patient partnerships, managing challenging consultations, third-party consulting, the use of interpreters and consulting modalities across the range of in-person and remote methods.	What skills do I need to consult effectively on the telephone? How might this change with a potential language barrier? What questions would be reasonable to ask the parent to establish Jana's clinical condition? How might my consultation be different if there was very high parental anxiety or, alternatively, a lack of sufficient parental concern? How do I manage situations where the patient or their family are used to a healthcare system or culture that operates differently from the NHS?
Data gathering and interpretation This is about the gathering, interpretation and use of data for clinical judgement, including information gathered from the history, clinical records, examination and investigations.	What other factors do I need to know about the child? What other information about the family would be useful? How do I assess the severity of this child's condition? What guidelines might help?

Clinical examination and procedural skills This is about clinical examination and procedural skills. By the end of training, the GP registrar must have demonstrated competence in general and systemic examinations of all the clinical curriculum areas, including the five mandatory examinations and a range of skills relevant to general practice.	How do I accurately assess possible signs of sepsis in children? Are there circumstances where I might need to be able to obtain venous access and administer intravenous (IV) fluids or medication? If so, am I able to do this proficiently?
Decision-making and diagnosis This is about having a conscious, organised approach to making diagnosis and decisions that are tailored to the particular circumstances in which they are required.	What is my strategy for ensuring Jana's safety? How much should the anxiety of Jana's parent influence this? If I establish this is not urgent and does not require examining, how would I 'safety-net'?
Clinical management This is about the recognition and a generalist's management of patients' problems.	What are the differential diagnoses? What would make me request that Jana is brought to my location so that I could examine her, as opposed to requesting that she is taken straight to hospital? What advice would I give Jana's parent if I establish Jana needs immediate ambulance assistance?
Medical complexity This is about aspects of care beyond the acute problem, including the management of comorbidity, uncertainty, risk and health promotion.	If I feel I need to examine the child, but the parent is reluctant to bring Jana to see me, how would I deal with this? How would my management differ if Jana had a complex medical history? If this was an in-hours non-urgent case, what services are available that could offer support?
Team working This is about working effectively with others to ensure good patient care and includes sharing information with colleagues and using the skills of a multiprofessional team.	If I was concerned there was a safeguarding issue in this case, how would I manage this? Who else might be able to help me? What processes are important for continuity of care in the urgent care and out-of-hours setting?

	What documentation would be particularly helpful for Jana's GP? How might this differ if Jana needed referral to hospital? What conditions are notifiable and how would I do this?
Performance, learning and teaching This is about maintaining the performance and effective CPD of oneself and others. The evidence for these activities should be shared in a timely manner within the portfolio.	What do I know about the incidence of specific illnesses in the community? What are the sources of that information for my locality and nationally? What is the evidence relating to temperature control in febrile illnesses? What areas could be explored further for potential improvement for colleagues managing similar cases?
Organisation, management and leadership This is about understanding how primary care is organised within the NHS, how teams are managed and the development of clinical leadership skills.	What are the challenges of working with different care records in different parts of the healthcare system? What can my practice do to improve patient access to urgent appointments? If I had difficulties, or if I noticed areas for organisational improvement, how would I feed back to the organisation?
Holistic practice, health promotion and safeguarding This is about the ability of the doctor to operate in physical, psychological, socio-economic and cultural dimensions. The doctor is able to take into account the patient's feelings and opinions. The doctor encourages health improvement, self-management, preventative medicine and shared care planning with patients and their carers. The doctor has the skills and knowledge to consider and take appropriate safeguarding actions.	How would I explore the health beliefs of the parent? What do I need to know about this family? How could I support Jana's parent with self-management? How might I react if I find out a parent refuses to have their child immunised against measles, mumps and rubella?
Community health and environmental sustainability This is about the management of the health and social care of the practice population and local community. It	How do I include the parents in the management of this situation? What questions would I ask? What negative influences or barriers might exist in the community that could exacerbate problems for Jana and her family?

incorporates an understanding of the interconnectedness of health of populations and the planet.	What community services might be available to help Jana and her family?

How to learn this area of practice

Workplace-based learning

As a GP registrar, you must gain experience of managing patients presenting with urgent and unscheduled healthcare needs, which is an important feature of both 'in-hours' and 'out-of-hours' GP care. There are particular features of unscheduled care that require a specific educational focus, such as the increased risk of working in isolation, the 'high-stakes' nature of clinical decisions, the relative lack of supporting services and the frequent need to promote self-care.

There are a number of organisations involved in the delivery of urgent and unscheduled primary care, including pharmacies, dentists, NHS 111, GP practices, urgent care centres, out-of-hours providers, seven-day access services and EDs or A&Es. The model of service provided varies, but there will be a need for partnership and collaboration between all agencies at the local level. As part of your training programme, you need exposure to a variety of community-based emergency and out-of-hours models.

The hospital environment can be an ideal setting for you to see concentrated groups of acutely ill children and adults. All doctors entering general practice training programmes are expected to have acquired the competences in acute care described in the foundation programme curriculum. Many doctors will have acquired additional competences during their hospital training before entering GP specialty training. Some GP training programmes will contain placements of varying length in acute medicine and EDs that are ideal environments for learning about acutely ill people and their management. While you will have learned CPR skills in the foundation programme (or equivalent), it is important to maintain these skills once in practice through regular updates and practical training sessions. Hospital resuscitation departments usually have excellent learning resources for you to keep up to date with these skills.

All GP registrars and GPs should have access to BLS and CPR courses and learning resources during their primary care placements to help them address their learning needs.

Learning with other healthcare professionals

Teamwork is essential for the effective management of acutely ill patients in primary and secondary care. It is vital that all members of the primary healthcare team (both clinical and non-clinical members) understand their roles in managing acutely ill patients and contribute to the development of practice guidelines.

Formal structured learning opportunities can include organisation induction programmes (such as when starting to train or work in an out-of-hours GP centre), telephone consulting skills courses and eLearning opportunities. You can find an eLearning module(s) relevant to this topic guide at elearning for healthcare.

Examples of how this area of practice may be tested in the MRCGP

Applied Knowledge Test (AKT)

- Differential diagnosis of acute confusional state
- Signs and symptoms of sepsis
- Management of an epileptic seizure

Simulated Consultation Assessment (SCA)

- Phone call: a paramedic asks for a routine visit to a middle-aged man who has a four-hour history of paraesthesia in his arm. The paramedic's provisional diagnosis is nerve entrapment
- House call: a young man with acute headache and vomiting. An examination is expected
- A young woman feels unwell and is sweating and light-headed and has a rapid pulse. An examination is expected

Workplace-based Assessment (WPBA)

- Take a history with a parent about their febrile child
- Case-based Discussion (CbD) about an elderly patient with pneumonia who has capacity and is refusing admission to hospital
- Clinical examination of an acute abdomen for possible appendicitis