



Identifying the work activities performed by doctors in the Foundation Programme

Research conducted for the General Medical Council

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Executive Summary

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All interpretation and opinion in this report is that of the authors alone and does not necessarily reflect that of the General Medical Council.

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Key points of project

Understanding the work of Foundation Programme doctors is essential for ensuring that undergraduate curriculum guidance will produce doctors with the appropriate skills for today's healthcare practice.

The activities specified as outcomes in GMC policy (formerly Tomorrow's Doctors 2009 and The Trainee Doctor) have not been validated in Foundation Programme doctors' practice until now.

While many of these activities are routinely undertaken by Foundation Programme doctors (for example, interpreting investigations, prescribing), a substantial number are not (for example, basic observations, giving injections).

Activities which are not routine may be required relatively rarely because they relate to infrequent conditions, or may be common in practice but performed by other staff groups.

There is therefore potential for this list of activities to be revised. Possible criteria to prioritise activities for retention in curriculum guidance are:

- (i) Empirical evidence of an activity being a routine part of trainees' work.*
- (ii) An activity that requires a doctor to carry it out.*
- (iii) Potential that an activity may be required in an emergency (life-saving) context.*
- (iv) Potential that an activity may be required when other staff are not immediately present.*
- (v) An activity that may be rare in most circumstances, but is routine in particular specialties or clinical contexts.*

However, any consideration of the removal of activities from curriculum outcomes should proceed cautiously, and seek to identify unintended consequences from such removal.

Foundation Programme doctors are expected to fulfil different functions – of support, practitioner and learner – and perform different activities in different settings. These can vary on local (ward and team) and organisational (setting and specialty) levels.

Policy specifying undergraduate curricula may be made more fit for purpose by:

- Shifting focus to the role or function of the F1 doctor in the healthcare team, rather than discrete activities.*
- Managing student expectations of what F1 work will involve, emphasising the plurality and fluidity of these roles.*
- Foregrounding the importance of appropriate inter-professional education to articulate the doctors' role and function as part of a healthcare team.*
- Situating the role of the F1 doctor within the wider healthcare organisation and emphasising that quality and safe patient care derives from the plurality of roles.*

Executive Summary

Background

Foundation Programme doctors are often the members of medical staff with most regular contact with patients, and are consequently at the forefront of patient safety. It is therefore essential that the curricula they follow as medical students reflect what they will be required to do when they begin work.

The General Medical Council (GMC) specifies the required outcomes of medical school and Foundation Year 1 (F1) training in documents that presuppose the work that is done by F1 doctors. However, little is known about what actually comprises the work of these doctors, and so whether those outcomes are appropriate.

This report examines the work of Foundation Programme doctors from a number of perspectives. Specific questions examined are:

- i) What activities do Foundation Programme doctors carry out in their daily work?
- ii) How do these activities map to the outcomes specified by the GMC?
- iii) What perceptions do key stakeholder groups have of the activities required of F1s?
- iv) How does the regularity of activities vary between F1 and F2 trainees, specialties, types of healthcare organisation or geographical regions?
- v) To what extent are activities routinely carried out by doctors, or by nurses?

What was done

Mixed methods were used to collect data from Foundation Programme doctors and other stakeholders. Data collection involved:

Foundation Programme doctors	<ul style="list-style-type: none">• Questionnaire completed by a national sample of F1 (n=1,819) and F2 trainees (n=1,878), asking about the frequency with which they perform each of 103 activities (97 of which were drawn from GMC documents).• Focus groups in 5 areas of the UK (total n=58 participants).• Telephone interviews with a national sample of F1s (n=13) and F2s (n=8).
Nurses	<ul style="list-style-type: none">• Questionnaire completed by a regional sample from North East England (n=221), asking about the extent to which the 103 activities are generally performed by nurses or by Foundation Programme doctors.• Focus groups in two areas of the North East region (total n=22 nurses).
Supervisors	<ul style="list-style-type: none">• Telephone interviews with a national sample (n=14).
Employers	<ul style="list-style-type: none">• Telephone interviews with a national sample of senior clinicians with deployment responsibility (n=4).• Telephone interviews with a national sample of senior non-medical Trust management staff (n=4).

These stakeholder groups are regarded as having particular insight into the daily work, supervision and employment of Foundation Programme doctors.

Key findings

The data illuminate three inter-related aspects of work: (i) the specific activities performed by Foundation Programme doctors; (ii) the roles fulfilled by Foundation Programme doctors in the workplace, and (iii) the factors which shape the nature of their work.

Activities

Many of the activities specified in policy documents (39% of those specified in GMC outcomes – see table) are ‘routine’ – that is they are performed regularly (at least once or twice a week) by more than 75% of all Foundation Programme trainees (F1 and F2), indicating alignment between policy and practice for these activities. However, while many were identified in interviews and focus groups as being appropriate, some of these activities – particularly those that are regarded as ‘administrative’ (for example, discharge summaries) – are often perceived as unrewarding, even if their contribution to patient care is recognised.

Alongside this, nearly one quarter of the activities specified in policy are ‘rare’: that is performed regularly by less than 25% of trainees. Many of these are practical skills or procedures, such as taking basic observations, or giving an intramuscular injection.

	Regularly performed by 0-24% of trainees	Regularly performed by 25-49% of trainees	Regularly performed by 50-75% of trainees	Regularly performed by 76-100% of trainees	Total
Number of activities within each threshold	22	23	20	38	103
% of all questionnaire items (103 items)	21%	22%	19%	38%	100%
Number of items reflecting GMC-specified outcomes* (97 items)	22	20	17	38	97
% of items relating to GMC-specified outcomes (97 items)	23%	21%	17%	39%	100%

* GMC-specified outcomes are those which were included in *Tomorrow's Doctors 2009* and *The Trainee Doctor*, and constitute the ‘Outcomes for graduates’ and ‘Outcomes for provisionally registered doctors with a licence to practise’, published in 2015.

Two main reasons for activities being rare are identified. Firstly, when there is an infrequent need to perform them (for example, a reaction following blood transfusion is clinically uncommon). Secondly, as a result of a division of labour whereby certain activities are routinely undertaken by non-medical staff (usually nurses).

These findings indicate that activities specified in policy are not always part of Foundation Programme doctors’ work, but there is general agreement amongst stakeholders that doctors should understand and be able to carry out at least some of those activities in situations of particular need. These include medical emergencies and complex cases, but also occasions where no other competent healthcare professional is immediately available.

Some 'other' activities not specified in policy are also identified in our data. These include practical procedures (notably arterial blood gas sampling and naso-gastric tube placement), end of life discussions with patients, and 'professional skills' that are seen as integral to routine work (task prioritisation and making a 'job list'). Some of these activities are implicit in current policy, but greater specification would be helpful to trainees.

Additionally, some activities may be routine in certain specialties only, and of generally low prevalence in other specialties. General practice placements (currently undertaken only by F2s) contain a distinct set of activities when compared to hospital-based specialties. Data from a small number of other community placements were insufficient to conclude how their required activities may differ.

Roles

The role of the trainee, both from their own perspective and that of others, is key to interpretation of their activities.

Fundamentally, there is a tension between three main elements of the role: as a 'support' who keeps the ward functioning; as an 'independent practitioner'; and as a 'learner' (a role that is implicit in the training status of Foundation Programme posts). This tension is influenced by trainees' subjective definition of what constitutes 'medicine' – typically activities in which the doctor has some autonomy, rather than responding to others' decisions. While both support and independent practitioner roles contribute to patient care, the latter may therefore be more valued by Foundation Programme doctors as it aligns more with this definition. Support roles may lack perceived autonomy and seem less like medical work, though other stakeholders recognise explicitly that the effective function of the organisation and the patient experience are heavily dependent on the detail and effective delivery of these roles.

Both of these patient-oriented roles may also be in tension with the role of a learner. Some F2s are able to identify educational value in these activities, where F1s cannot. F1 is a transitional experience, and may involve a changing perspective on what constitutes learning, from a knowledge-based focus on explicit learning for final exams, to recognition of the implicit learning involved in developing practice.

The function of the Foundation Programme doctor is seen as dynamic and fluid, and activities could relate to any one of the three roles depending on other influences (such as senior medical support, nursing culture, specialty, progression and time of day).

Factors influencing roles and activities

A number of aspects of practice shape the balance and perception of the activities and roles. These are grouped as organisational, nursing and progression-related factors.

Organisational factors, such as specialty, shifts, hospital setting and specific team norms, can all shape what is expected of Foundation Programme doctors. Some circumstances will lead doctors into

predominantly support roles, while others will enable them to practise more independently. Some settings have a more explicit learning culture than others.

The relationship with nursing staff, and how work is organised between doctors, nurses and other staff groups, directs the nature and frequency of F1 activities. This is usually informal, and is influenced by the local, ward- or team-level culture.

Finally, there are some differences in the frequency with which some activities are carried out by F1s and F2s. These differences arise in part from F2s working in a wider range of specialties (and especially general practice), and in part from their having more responsibility. However, the majority of activities are equally routine in F1 and F2 years.

Relevance for policy

The study findings have relevance for policy in two main areas: prioritising of activities in undergraduate curricula, and managing student expectations of their future roles.

i) Prioritising activities

- Activities included or potentially to be included in GMC-specified outcomes may be prioritised by considering them against a number of criteria. Criteria proposed from our findings are:
 - i) Empirical evidence that an activity is commonly performed by Foundation Programme doctors.
 - ii) An activity requires the presence or involvement of a doctor, and cannot be done by any other healthcare professional.
 - iii) An activity may be required in an emergency (life-saving) context.
 - iv) An activity may be required when other staff are not immediately present, such as out of hours working.
 - v) The activity may be required with greater frequency in particular specialties because of particular clinical demands.
- By the first criterion, activities that should clearly remain in the curriculum specification are those which are 'routine', meaning that they are a regular part of work for a large number of trainees. The criterion for defining 'routine' cannot be identified objectively, but taking a threshold of 25% of all questionnaire respondents indicating that they perform them at least once or twice a week, there are 81 core, routine activities, of which 75 are in GMC documents.
- Other activities, which are not specified in current outcomes, but are regular for a large number of trainees, are arterial blood gas sampling, naso-gastric tube insertion and addressing decisions not to resuscitate. Time management, writing discharge summaries and letters may also currently be under-specified.
- For activities which are low priority when appraised by these criteria, care should still be taken in considering their deletion, and a more detailed risk analysis made in respect of the risk of leaving future competency gaps in the clinical workforce, or other unintended consequences.

- Specialty or site-based training in specific activities may mitigate the risks of deleting activities from policy and core curricula, but this may have implications for cost, workload and quality assurance.

ii) Recognition of roles and expectation management

- While identifying core activities is a necessary element of specifying curricula, it may be helpful to explicitly address the fluid roles which Foundation Programme doctors must take on.
- Managing medical students' expectations of what these roles entail, and how the balance of roles may vary commonly, and often unpredictably, may be a more effective focus for the transition to practice than developing their confidence, or subjective preparedness, which remains conceptually problematic.
- Undergraduate programmes should also facilitate a transition from knowledge-based learning to skill-based practice, and develop awareness of the implicit learning which takes place in practice.
- Increasing students' awareness of the division of labour in the workplace may help their adaptation – their awareness that it exists, but also that it is variable, and 'doctors' tasks' and 'nurses' tasks' are not constants.
- The Foundation Programme training framework may also benefit from addressing Foundation Programme trainees' expectations of their role.
- Addressing the current mutual lack of awareness of medical and nursing roles, may also be beneficial, possibly through reciprocal shadowing, and inter-professional simulation.
- Organisations which recognise the plural and adaptable role of the newly qualified doctor may be better able to tap their expertise and reap benefits for healthcare delivery and patient safety.
- Educators, and regulators, of different professions, may benefit from joint strategic development of educational strategy at a time when healthcare provision is undergoing prolonged change.
- The Foundation Programme role affords trainees a unique perspective on healthcare delivery, and while awareness of quality improvement processes is a currently specified outcome, trainees' knowledge and insight could be better capitalised upon by healthcare organisations.

Conclusion

Nearly one quarter of activities set out in the GMC's outcomes for undergraduate medical education and full registration are not a routine part of Foundation Programme doctors' work. The question is therefore raised whether those activities are necessary in undergraduate medical education, and whether some, for which omission carries a low risk, may be deleted from policy. However, infrequently performed activities may still be required of trainee doctors in all settings, and dropping some activities may require additional setting-specific training. Deletion of low frequency skills has the risk of undermining perceptions of the doctor as a universal agent of patient care.

Importantly, much of trainees' work is determined by particular contexts, and framed by their perceived role or function in the workplace – which is itself variable. There is not a clear and consistent 'generic' role of the Foundation Programme doctor.

Acknowledging the variability of the F1 role may help to make graduates more able to adapt to a fluid role when they begin practice. Undergraduate medical education should aim not for a graduate to be fit for a single purpose, but rather to be able to fit multiple purposes.

Further questions

There are a number of questions or areas for further examination arising from the findings.

- The criteria for prioritisation are suggestions based on our data, but would require detailed consideration from different clinical specialties in order to be applied. Risk analysis of dropping low priority activities from required outcomes would need to consider in detail, including the likelihood and consequences of Foundation Programme doctors not being able to perform these in different situations.
- The data raise questions about the risk of deskilling where trainees do not regularly carry out activities. The reality of this is worthy of further study, to explore both the likelihood of decline in skills, and the clinical risk arising (ie how likely is it that they will be in that situation and require the competence). If a genuine risk is identified, then employer-led refresher training, with or without formal credentialing, may be indicated.
- Development of effective inter-professional education is a long-standing and unresolved area. New GMC standards increase specification of inter-professional learning and team integration, but strategies that cross undergraduate and postgraduate curricula can ensure that these standards are effectively delivered.
- If low-frequency, specialty-specific activities were judged suitable to be safely dropped from undergraduate curricula, consequences for the work-based training in those activities in specialty curricula would need to be explored.
- Current findings do not allow consideration of roles and activities in varied community settings. As the number and type of community placements increases, further consideration of changing requirements will be necessary. However, a focus on trainee function and adaptability in the workplace will allow policy to remain broadly appropriate for such changes.
- Finally, this work omitted consideration of the patient perspective. Patient expectations of Foundation Programme doctors' roles and capabilities will be an important influence on their work, and should be studied directly.

Glossary

Deanery. Historically, a body responsible for the management and quality management of postgraduate medical education within a region of the UK. Since 2013, Deaneries in England have been replaced organisationally by LETBs, but the term is still commonly used. Medical education in Northern Ireland is managed by the Northern Ireland Medical and Dental Training Agency, while Wales and Scotland retain Deaneries as distinct entities.

DGH – District general hospital. Typically the major provider of secondary care for a locality, with patient referrals coming from General Practitioners or its own Accident and Emergency department. There is no easy distinction of a DGH from a teaching hospital, though doctors tend to regard a district general hospital as being smaller and without direct access to certain specialist care services, such as neurosurgery.

Foundation Programme. The first two years of postgraduate medical training undertaken in the UK.

F1 – Foundation Year 1. During the first year of the Foundation Programme F1 doctors are provisionally registered with the GMC, with limitations on their unsupervised practice, and prescribing. During this year they must show that they have met the outcomes specified by the GMC before they are eligible to apply for full registration.

F2 – Foundation Year 2. During the second year of the Foundation Programme F2 doctors still work under supervision but take on more responsibility for patient care. After successful completion of this year trainees may progress into specialty or general practice training in the UK, or elsewhere.

LEP – Local Education Provider. An organisation commissioned by a Deanery or LETB to provide education and training. These may include NHS Foundation Trusts, Health Boards, or primary care facilities.

LETB – Local Education and Training Board. In England LETBs are responsible for the education and training of health and public health workers at a regional level. They are committees of the national body, Health Education England (HEE). All providers of NHS services in England should be a member of, and be involved with the work of their local LETB.

PRHO – Pre-Registration House Officer. The first year of postgraduate work before the introduction of the Foundation Programme in 2005. While the structure of training has changed, some literature looking at the work of PRHOs is relevant to the practice of F1s.

SHO – Senior House Officer. Before the introduction of the Foundation Programme, doctors undertook a number of SHO posts in their second and subsequent postgraduate years in order to gain experience across a number of specialties before embarking on a particular career route. The term SHO is still commonly used to describe the tier of junior trainees above F1 doctors. 'SHO rotas', which include F2 doctors and junior specialty trainees may still be in place.

Registrar. A tier of more senior specialty trainees, generally those who have completed their Membership examinations for medicine, surgery or relevant specialty. The term is still commonly used, although formally it has been superseded by Specialty Training (ST) grades.

Teaching hospital. While there may be no single definition of a teaching hospital, doctors tend to associate this hospital type with provision of both secondary and tertiary care, with referrals direct from the local community and from surrounding DGHs for specialist input. Hence, teaching hospitals are viewed typically as being large centres. The term is generally understood to imply affiliation with a medical school and an associated track record of academic research excellence.

UKFPO – United Kingdom Foundation Programme Office. The UKFPO manages the national application process to the Foundation Programme, issues guidance on Foundation training and promotes the consistent delivery of the Foundation Programme across the UK.