

Cardiology with General Internal Medicine (GIM)

Specialty Specific Guidance

This guidance is to help doctors who are applying for entry onto the Specialist Register with a CESR in Cardiology. This guidance is for doctors choosing to apply in Cardiology where the capabilities for General Internal Medicine will also be demonstrated by meeting all the requirements set out below. You will also need to read the [curricula for the specialty and General Internal Medicine](#)

An application has been made to change the name of General Internal Medicine to Internal Medicine

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Introduction

This document is designed to provide helpful information and guidance to enable you to make an application for a Certificate of Eligibility for Specialist Registration (CESR) in Cardiology with General Internal Medicine. This is not a standalone document and should be read in conjunction with the [curricula](#) – please see the [specialty page](#) on the Joint Royal Colleges of Physicians Training Board (JRCPTB) website for more details. You can [contact us](#) and ask for advice before you apply.

It is worth noting that it is sometimes more difficult to make a successful CESR application if you have not worked in the NHS. This is because key features of training and practice in the NHS are not always covered in the same way outside it. This might include, for example, multidisciplinary team meetings, appraisal, multisource feedback and patient feedback, safety and quality activity especially in clinical audit and quality improvement projects and other areas. You must look at the curriculum and this guidance carefully to make sure that you can demonstrate equivalence to all the requirements. If you are or have recently been practising in an environment that is not comparable to practice in an NHS cardiology department you might find it useful to consolidate your experience elsewhere before applying.

What is the indicative period of training for a Certificate of Completion of Training (CCT) in Cardiology and GIM?

The indicative period of training for a CCT in cardiology is eight years and it is unlikely that you would achieve all the learning outcomes required for a CCT in a shorter period of time.

The structure of the training programme (in indicative timescales) is as follows:

- Three years of Internal Medicine (stage 1) or four years of Acute Care Common Stem – Internal Medicine (ACCS-IM) including MRCP(UK)
- Five years of specialty training in cardiology and GIM

Applicants need to demonstrate that they have achieved the learning outcomes required for all stages of the curriculum.

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Curriculum Framework

The curriculum is structured into high-level learning outcomes, known as capabilities in practice (CiPs). The CiPs are split into generic, clinical and specialty specific capabilities, as outlined below. Acquiring a CESR depends upon you providing evidence that you're working at the level of being entrusted to perform safely and independently for each CiP.

The first six CiPs are generic and shared across all physician specialties, covering the universal requirements of [Good Medical Practice](#) and the [Generic Professional Capabilities \(GPC\) framework](#).

The eight clinical CiPs describe the clinical tasks or activities which are essential to the practice of internal medicine and the five specialty CiPs describe the specialty-specific clinical tasks or activities which are essential to the practice of cardiology. These CiPs have been mapped to the GPC domains to reflect the professional generic capabilities required to undertake clinical tasks. Cardiology consultants must also be able to demonstrate their capability in one of five further specialty CiPs, in advanced themes, in order to meet the service needs for some specialism in each of these more advanced themes.

The range of experience needed to achieve the CiPs is outlined in the curriculum – this covers different settings, contexts, clinical problems, conditions and stages of a person's life and illness.

Generic CiPs

1. Able to function successfully within NHS organisational and management systems
2. Able to deal with ethical and legal issues related to clinical practice
3. Communicates effectively and is able to share decision making, while maintaining appropriate situational awareness, professional behaviour and professional judgement
4. Is focussed on patient safety and delivers effective quality improvement in patient care
5. Carries out research and manages data appropriately
6. Acts as a clinical teacher and clinical supervisor

Clinical CiPs

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1. Managing an acute unselected take
2. Managing the acute care of patients within a medical specialty service
3. Providing continuity of care to medical inpatients, including management of comorbidities and cognitive impairment
4. Managing patients in an outpatient clinic, ambulatory or community setting, including management of long-term conditions
5. Managing medical problems in patients in other specialties and special cases
6. Managing a multi-disciplinary team, including effective discharge planning
7. Delivering effective resuscitation and managing the acutely deteriorating patient
8. Managing end-of-life and applying palliative care skills

Specialty-Specific CiPs (Core Cardiology)

1. Coronary disease and intervention: manage coronary artery disease and associated conditions
2. Imaging: management of valvular heart disease, aortopathy and cardiac tumours
3. Electrophysiology and devices: management of cardiac arrhythmias and cardiac implantable electronic devices
4. Adult congenital heart disease: management of adult congenital heart disease and heart disease in pregnancy
5. Heart failure: managing disorders of the heart muscle, pericardium and pulmonary vasculature

Specialty-Specific CiPs (Advanced Themes)

1. Lead a coronary intervention service
2. Lead a cardiac imaging service
3. Lead an arrhythmia management service
4. Lead an adult congenital heart disease service
5. Lead a heart failure service

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Submitting your evidence

Please keep the following in mind when gathering your evidence:

- The evaluators want to see quality, relevant evidence to demonstrate the required CiPs. It's more important to carefully select your evidence and present it in an organised way, than provide large volumes of minimally relevant evidence
- Triangulated evidence will make a stronger application
- Evidence of your recent practice (i.e. less than 5 years old) will be given more weight, as it reflects current capabilities
- Your evidence must be legible

All your evidence, other than qualifications you're getting authenticated, **must** be accompanied by a proforma signed by the person who is attesting to the validity and accuracy of your evidence (your verifier). It's very important that you read an explanation of how to do this in our [important notice about evidence](#).

You will also need to submit translations of any documents that are not in English. Please ensure the translations you submit meet our [translation requirements](#).

Your evidence **must** be accurate and may be verified at source should we have any queries or justifiable doubts about the accuracy of your evidence. All evidence submitted will be cross-checked against the rest of your application and documents.

Anonymising your evidence

It is important that you anonymise your evidence before you submit it to us. You **must** remove:

- All patient-identifying details
- Details of patients' relatives
- Details of colleagues that you have assessed, written a reference for, or who have been involved in a complaint you have submitted

This includes:

- Names (first and last)
- Addresses

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- Contact details such as phone numbers or email addresses
- NHS numbers
- Other individual patient numbers
- GMC numbers

The following details **don't** need to be anonymised:

- Gender
- Date of birth

It is your responsibility to make sure that your evidence has been anonymised. Evidence which has not been anonymised will be returned to you. More information can be found on our [website](#).

How much evidence to submit

As a general guide, most applications are expected to include around 100 electronically-uploaded documents. You must ensure that you follow our guidance on how to present and group your evidence in the online application.

The total number of documents and assessments presented is less important than the quality of the documents, and the breadth of cases covered. This allows the evaluators to form reliable judgements of performance and capabilities.

This guidance on documents to supply is not exhaustive and you may have alternative evidence. You do not necessarily have to supply every type of evidence listed, but you must submit sufficient evidence to address each of the required learning outcomes and the associated capabilities. We recognise that you may not have all the evidence that is required but it will help us process your application more quickly if you ensure that you only submit evidence that is directly relevant. Triangulation of evidence will strengthen an application, and we recommend that you delay submitting an application until you have achieved this.

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Your evidence **must** cover the knowledge, skills and experience to demonstrate the required CiPs in all areas of the curriculum. You should focus on providing **good quality** evidence, rather than quantity. You are advised to review the curriculum and ARCP decision aid to see what is expected from doctors in training in the UK.

You should bear in mind the following points:

- Evidence should show that you are able to assess and offer a first opinion in any setting and for any age
- Don't duplicate evidence that is relevant to more than one CiP – you should include one copy and list it under each relevant CiP (cross-referencing)
- Evidence should only be cross-referenced where it adds significant support to a CiP
- Evidence should be provided from a variety of clinical settings.

Our [guidance](#) on compiling your evidence will help you to decide what is relevant and what is not. We recommend that you read it carefully.

Organising your evidence

Your evidence will need to be organised to reflect the structure of the online application. You need to gather your evidence by CiP and then attach this under the relevant section in your online application.

Please refer to our [user guide](#) for information on grouping and uploading your evidence.

Your evidence must be mapped to the curriculum by providing primary evidence for knowledge, skills and qualifications to demonstrate the required CiPs for all areas of the curriculum. If evidence is missing from any area of the curriculum, your application is likely to be unsuccessful.

You will not be able to compensate for shortfalls in your evidence of training and experience in a particular area, by providing extra evidence in other areas.

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Tips for a successful application

In our experience, CESR applications fail because they provide inadequate or poor evidence of current capability covering the entire curriculum. Below are some tips for you to consider when making an application:

- Before submitting an application, you should review the current CCT curriculum in conjunction with this document. A strong CESR application will provide evidence to demonstrate that knowledge, skills and experience are equivalent in both the breadth and level of capability, to that set out in the curriculum
- Provide evidence of your **current capability** in all areas of the curriculum. This includes the maintenance of CiPs and key skills over the last five years – all evidence should be clearly linked to the CiPs
- Provide evidence demonstrating core medical knowledge and application of this knowledge in practice to the level of completion of Internal Medicine stage 1 training. This can be demonstrated through the generic and clinical CiPs of the curriculum. Applicants will need MRCP (UK) or equivalent.
- Present your evidence in a clear, logical manner. You should refer to our user guide for advice on how to group, title and upload your evidence
- Ensure your referees can provide detailed support for your key skills across all (or most) areas of the curriculum and understand the requirements for specialist training and registration in the UK
- Provide evidence of managing a broad range of patients, as seen daily by cardiology doctors in the UK
- Provide evidence of your clinical capability across the range of experience, ages and settings
- Ensure your evidence demonstrates you are entrusted to act at consultant level across all of the specialty-specific CiPs at core level and one of the specialty-specific CiPs at advanced level

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We strongly recommend that you closely match your experiences against the current curriculum and provide evidence of equivalence across all areas.

How your evidence can be used to demonstrate key capabilities in different CiPs

You will notice that some of the suggested evidence is listed more than once. This is because these documents are relevant to more than one CiP. For example, an ACAT can be used to demonstrate competence in most CiPs – therefore, you can use the same ACAT to demonstrate the required capability across several CiPs

If you have a document that is relevant to more than one CiP, don't include multiple copies of it. Instead, provide one copy and list it in your application under each relevant CiP, stating that the document is located elsewhere, and you'd like to cross-reference it.

Below is a list of evidence that are relevant to most CiPs – it is by no means exhaustive, and you are encouraged to submit a variety of evidence.

A description of the assessments below, together with template forms, can be found on the [JRCPTB website](#)

Evidence / requirement	About	Minimum expectation
Supervised Learning Events (SLEs)		
Acute Care Assessment Tool (ACAT)	These should have been undertaken with a consultant. Each ACAT must include a minimum of 5 cases and should be used for global assessment of an applicant's performance on take, or on presenting new patients on ward rounds, encompassing both individual cases and overall performance (eg prioritisation, working with the team)	15 ACATs across IM and cardiology are required to demonstrate consultant level capability

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Case-based discussion and/or mini-clinical evaluation exercise (mini-CEX)	<p>These should have been undertaken with a consultant.</p> <p>CbDs and Mini-CEXs should cover different aspects of the specialty and Internal Medicine.</p>	<p>15 further SLEs across IM and cardiology are required to demonstrate consultant level capability</p>
Workplace Based Assessments (WPBAs)		
Direct Observation of Procedural Skills (DOPS)	<p>Evidence of procedural competence as specified in the table below.</p> <p>One summative DOPS <u>must be</u> provided for each procedure for which an applicant must be competent to perform unsupervised</p>	<p>6 DOPS for IM.</p> <p>For each of the mandatory cardiology procedures, six DOPS at the final level of competence are required to demonstrate consultant level capability</p>
Quality Improvement Project Assessment Tool (QIPAT)	<p>Can be used to demonstrate active involvement in service audit or development projects.</p>	<p>2 completed in last 5 years</p>
Patient Survey (PS)	<p>Formal patient feedback is strong evidence as it's an anonymous feedback exercise. It should include approximately 15 patients. The JRCPTB has a template available on their website. A reflective entry reflecting on the survey must be made.</p>	<p>2 completed in last 5 years</p>

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	<p>If it is not possible to provide a formal patient survey an applicant could provide alternative evidence. However, this must provide equivalent details and breadth of information.</p> <p>Alternative evidence could include:</p> <ul style="list-style-type: none"> ▪ Thank you letters/cards from patients ▪ Statements from referees ▪ Testimonial letters from colleagues ▪ Feedback from patients/colleagues 	
Teaching observation (TO)	At least one should be completed by a consultant in the specialty.	2 completed in last 5 years
Multi Source Feedback (MSF)	<p>MSF is a strong piece of evidence as it is an anonymous feedback exercise.</p> <p>Minimum of one in the year before the application has been submitted – any available from the last 5 years should also be submitted.</p> <p>MSF should include approximately 12 colleagues, including medical and non-medical sources.</p>	2 completed in last 5 years
Other evidence		
To be included in the portfolio of evidence	<ul style="list-style-type: none"> ▪ Appraisal is good evidence of engaging with systems, processes and mandatory requirements and demonstrates performance (clinical and non-clinical) ▪ Reflective diaries/ evidence of self-reflection ▪ Supervisor report reports from trainers and supervisors are important evidence to affirm and support capabilities and performance in both clinical and non-clinical activities. JRCPTB provides a Multiple Consultant Report (MCR) template for the purpose of these reports of which there should be 4 in the last 12 months. 	There should be evidence of regular assessment of performance, such as

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	<ul style="list-style-type: none"> ▪ Logbooks must cover the last 5 years and show the type of procedures you performed and your role in the procedure ▪ Training events (courses, study days, meetings) over the last five years ▪ Evidence of seeing patients over the last five years covering a range of settings, referral contexts, conditions, stages of illness, ages ▪ Academic activities ▪ Management activities ▪ Structured reports 	<p>annual appraisals or supervisor’s reports. These assessments should draw on feedback from multiple sources, such as MCR’s or patient and colleague feedback.</p>
<p>Continuing Professional Development (CPD)</p>	<p>CPD represents the acquisition and maintenance of knowledge, skills and key skills.</p> <p>Courses you may want to provide evidence of include:</p> <ul style="list-style-type: none"> ▪ Life support ▪ Teaching ▪ Simulation ▪ Management ▪ Research methodology ▪ Business ▪ Communication ▪ Education <p>Examples of evidence could include a personal, reflective diary of learning achievements, in addition to detailed evidence of courses attended.</p>	

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Evidence of training and qualifications

Substantial primary evidence for any previous training towards a medical qualification should **only** be submitted if the training is directly relevant to your CESR capabilities **and** dates from the past five years. Otherwise, certificates of completion are sufficient evidence of training.

Primary medical qualification (PMQ)

If you hold full registration with us, you do not need to submit your PMQ as we saw it when we assessed your application for registration.

If you do not hold registration, you will need to have your PMQ independently verified by ECFMG before we can grant you full registration with a licence to practise.

You can find out more about [primary source verification](#) on our website.

You only need to get your PMQ verified by ECFMG. The rest of your evidence should be verified in line with [our guidance](#).

Specialist medical qualification(s)

Please provide an **authenticated copy** of any specialist medical qualifications you hold.

Evidence of completion of full **MRCP(UK)** or equivalent.

The MRCP(UK) is comprised of three tests, designed to assess acquisition of the full range of knowledge, skills and behaviour, as well as clinical understanding and execution, as detailed in the UK curriculum for Core Medical/Internal Medicine Training. For further information on the MRCP(UK), [click here](#).

Evidence of completion of the **European Examination of General Cardiology** or equivalent.

There are no qualifications from outside Europe that enable automatic entry to the Specialist Register in any specialty. An evaluation is made based on an applicant's whole career and

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	<p>therefore two applicants with the same qualifications but different training and/or experience may not receive the same decision.</p> <p>If your specialist medical qualification is from outside the UK, please ensure that you provide the following evidence in addition to your qualification:</p> <ul style="list-style-type: none"> ○ Training curriculum or examination syllabus ○ Formal period assessments completed during training (these may be older than 5 years)
<p>Recent specialist training</p>	<p>If you have worked in posts approved for a specialist training programme for a relevant qualification outside the UK in the past five years, please provide an authenticated copy of the curriculum or syllabus that was in place when you undertook your training.</p> <p>If a formal curriculum or syllabus (including assessment methods) is not available please provide a letter from the awarding body outlining the content of the training programme or examination.</p> <p>You must provide evidence of formal periodic assessment during your training. This evidence must have been completed at the time the training was undertaken (if it is completed retrospectively less weight will be given to the information provided). If you do not supply formal assessment documents, the curriculum must demonstrate how you were assessed. A detailed letter of verification from an educational supervisor would satisfy this requirement.</p> <p>If areas for development were highlighted, please provide evidence to demonstrate that you have subsequently addressed them.</p> <p>If you have undertaken approved specialty training towards a CCT or CESR(CP) in this specialty in the UK in the past five years, you should provide a copy of your ARCPs.</p>
<p>Specialist registration outside the UK</p>	<p>Please provide an authenticated copy of details of the registration requirements of that authority.</p>

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Other relevant qualifications and certificates

You may include postgraduate qualifications if they are relevant to associated capabilities e.g. teaching, management, research methodology. Please provide **copies** of certificates.

Evidence of employment in posts and duties (including training posts)

Employment letters and contracts of employment

The information in these letters and contracts **must** match your CV. They will confirm the following:

- dates you were in post
- post title, grade, training
- type of employment: permanent, fixed term, or part time (including percentage of whole time equivalent)

Job descriptions

These **must** match the information in your CV. They will confirm the following:

- your position within the structure of your department
- your post title
- your clinical and non-clinical commitment
- your involvement in teaching or training.

Rotas

You must provide samples of your rotas from the last three years. These should demonstrate your weekly clinical and non-clinical activities. For example, if you worked a 1:8 rota, you should submit eight consecutive weeks' rota to represent that placement.

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Departmental/ Unit annual caseload statistics	You should provide departmental and unit caseload statistics, activity data, range and scope of work undertaken in a placement from the last three years.
Appraisal	<p>Those working in an NHS or managed environment should submit evidence of annual appraisals. A revalidation or appraisal portfolio would be appropriate (if it is completed retrospectively less weight will be given to the information provided).</p> <p>For non-training posts you should provide evidence of ongoing evaluation of your performance. This may take the format of formal appraisals by the department head or line manager (clinical director, medical director, professor).</p> <p>For those applicants working in independent practice it is recommended that at least one employer. Appraisal is undertaken and summary documentation of this submitted with the application.</p> <p>Where an applicant is not based in the UK alternative forms of appraisal are strongly advised. Alternative evidence may include letters (written at the time) commenting on your performance. In addition, where no formal appraisal or assessment forms are available you must provide information on the method of career review or progression.</p>

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Practical Procedures

Below details the practical procedures and the level of competency you will be expected to evidence. You can provide evidence for these procedures using logbooks and DOPS.

Internal Medicine Procedures

Procedure	Level of competence required
Advanced cardiopulmonary resuscitation (CPR)	Leadership of CPR team
Direct current (DC) cardioversion	Competent to perform unsupervised
Temporary cardiac pacing using an external device	Skills lab or satisfactory supervised practice
Central venous cannulation (internal jugular or subclavian)	Skills lab or satisfactory supervised practice
Access to circulation for resuscitation (femoral vein or intraosseous) ^a	Skills lab or satisfactory supervised practice
Pleural aspiration for fluid (diagnostic) ^{b, c}	Competent to perform unsupervised
Pleural aspiration (pneumothorax) ^c	Competent to perform unsupervised
Intercostal drain for pneumothorax	Skills lab or satisfactory supervised practice
Intercostal drain for effusion ^b	Skills lab or satisfactory supervised practice
Nasogastric (NG) tube	Competent to perform unsupervised
Ascitic tap	Competent to perform unsupervised
Abdominal paracentesis	Skills lab or satisfactory supervised practice
Lumbar puncture	Competent to perform unsupervised

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Specialty Procedures

Procedure	Level of competence required
Central venous line insertion	Competent to perform unsupervised
Arterial line insertion	Competent to perform unsupervised
Transthoracic echocardiogram	Competent to perform unsupervised
Temporary pacing wire	Competent to perform unsupervised
Emergency interrogation of cardiac implanted electrical device	Competent to perform unsupervised
Pericardiocentesis	Competent to perform unsupervised
Permanent pacemaker	Able to perform under direct supervision. Applicants must be competent to perform unsupervised if they are applying with an advanced theme CiP in leading an arrhythmia management service.
Diagnostic angiography	Able to perform under direct supervision. Applicants must be competent to perform unsupervised if they are applying with an advanced theme CiP in leading an advanced coronary intervention service

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Generic CiPs

The suggested documentation is given below each CiP and the overall numbers expected are given in the section above. Each piece of evidence can support more than one CiP and you should cross reference

CiP 1: Able to function successfully within NHS organisational and management systems

Key skills:

- Aware of, and adheres to, the GMC professional requirements
- Aware of public health issues including population health, social determinants of health and global health perspectives
- Demonstrates effective clinical leadership
- Demonstrates promotion of an open and transparent culture
- Keeps up to date through learning and teaching
- Demonstrates engagement in career planning
- Demonstrates capabilities in dealing with complexity and uncertainty
- Aware of the role and processes for commissioning
- Aware of the need to use resources wisely

Suggested documentation:

- Reports from consultants who have worked with you, such as the Multiple Consultant Report (MCR)
- Feedback from a variety of clinical and non-clinical colleagues who have worked with you, such as the Multisource Feedback (MSF)
- Evidence of taking an active role in governance structures, including service development. This may, for example, include the minutes of meetings for governance and unit management in which the applicant has been involved, MDT meetings, and any documented service development initiatives such as QIPAT.
- Evidence of attendance at an NHS / health service management course

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CiP 2: Able to deal with ethical and legal issues related to clinical practice

Key skills:

- Aware of national legislation and legal responsibilities, including safeguarding vulnerable groups
- Behaves in accordance with ethical and legal requirements
- Demonstrates ability to offer apology or explanation when appropriate
- Demonstrate ability to lead the clinical team in ensuring that ethical and legal factors are considered openly and consistently

Suggested documentation:

- Reports from consultants who have worked with you, such as the Multiple Consultant Report (MCR), end of placement and appraisal reports
- Feedback from a variety of clinical and non-clinical colleagues who have worked with you, such as the Multisource Feedback (MSF)
- Evidence of ability to assess the mental capacity of patients to make healthcare decisions. Evidence could include:
 - Reflections on cases where you had to assess a patient's mental capacity
- Evidence of involvement in making 'best interests' decisions, such as:
 - Notes
 - Letters
 - Meeting minutes
- Awareness of relevant legislation, including mental capacity legislation by completion of an online training course, for example:
 - eLfh Mental Capacity Act: <https://www.e-lfh.org.uk/programmes/mental-capacity-act/>
 - CPD Online Mental Capacity Act: <https://cpdonline.co.uk/course/mental-capacity-act/>
 - SCIE Mental Capacity Act: <https://www.scie.org.uk/e-learning/mca>

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CiP 3: Communicates effectively and is able to share decision making, while maintaining appropriate situational awareness, professional behaviour and professional judgement

Key skills:

- Communicates clearly with patients and carers in a variety of settings
- Communicates effectively with clinical and other professional colleagues
- Identifies and manages barriers to communication (e.g. cognitive impairment, speech and hearing problems, capacity issues)
- Demonstrates effective consultation skills including effective verbal and non-verbal interpersonal skills
- Shares decision making by informing the patient, prioritising the patient's goals and wishes, and respecting the patient's beliefs, concerns and expectations
- Shares decision making with children and young people
- Applies management and team working skills appropriately, including influencing, negotiating, re-assessing priorities and effectively managing complex, dynamic situations

Suggested documentation:

- Reports from consultants who have worked with you, such as the Multiple Consultant Report (MCR), end of placement and appraisal reports
- Feedback from a variety of clinical and non-clinical colleagues who have worked with you, such as the Multisource Feedback (MSF)
- Evidence of your ability to analyse a patient's communication difficulties:
 - Reflective diaries
- Feedback from patients, such as a patient survey
- Reflective practice entries about patients or families who posed difficulties
- Assessment of observed clinical skills, attitudes and behaviours, such as a Mini-CEX

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CiP 4: Is focused on patient safety and delivers effective quality improvement in patient care

Key skills:

- Makes patient safety a priority in clinical practice
- Raises and escalates concerns where there is an issue with patient safety or quality of care
- Demonstrates commitment to learning from patient safety investigations and complaints
- Shares good practice appropriately
- Contributes to and delivers quality improvement
- Understands basic Human Factors principles and practice at individual, team, organisational and system levels
- Understands the importance of non-technical skills and crisis resource management
- Recognises and works within limit of personal competence
- Avoids organising unnecessary investigations or prescribing poorly evidenced treatments

Suggested documentation:

▪ Reports from consultants who have worked with you, such as the Multiple Consultant Report (MCR), end of placement and appraisal reports
▪ Feedback from a variety of clinical and non-clinical colleagues who have worked with you, such as the Multisource Feedback (MSF)
▪ Reflective practice entries about patients or families who posed difficulties
▪ Evidence that you have arranged and attended meetings about a patient with Social Services or other non-health organisations. For example: <ul style="list-style-type: none">• Meeting minutes, demonstrating your attendance and participation• Invites sent from you demonstrating arranging meetings
▪ Assessment of observed clinical skills, attitudes and behaviours, such as a Mini-CEX
▪ Documented evidence of development of procedures to improve inter-service and inter-agency communication, you will need to demonstrate your involvement in the new procedure and its effectiveness
▪ Evidence of specific quality improvement activity, such as a QIPAT

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- Copies of letters you have written to NHS and non-NHS services involved with patients

CiP 5: Carries out research and manages data appropriately

Key skills:

- Manages clinical information / data appropriately
- Understands principles of research and academic writing
- Demonstrates ability to carry out critical appraisal of the literature
- Understands the role of evidence in clinical practice and demonstrates shared decision making with patients
- Demonstrates appropriate knowledge of research methods, including qualitative and quantitative approaches in scientific enquiry
- Demonstrates appropriate knowledge of research principles and concepts and the translation of research into practice
- Follows guidelines on ethical conduct in research and consent for research
- Understands public health epidemiology and global health patterns
- Recognises potential of applied informatics, genomics, stratified risk and personalised medicine and seeks advice for patient benefit when appropriate

Suggested documentation:

- Reports from consultants who have worked with you, such as the Multiple Consultant Report (MCR), end of placement and appraisal reports
- Feedback from a variety of clinical and non-clinical colleagues who have worked with you, such as the Multisource Feedback (MSF)
- Evidence of completion of Good Clinical Practice (GCP) training:
 - www.nihr.ac.uk/health-and-care-professionals/learning-and-support/good-clinical-practice
- Documented evidence of research activity. This may include evidence of:
 - Helping in a project

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- Reviewing research papers / grants
- Writing and co-authoring research papers
- Contributing to research projects

▪ Presentations – either lectures (podium presentations) or poster presentations

▪ Documented evidence of development of procedures to improve quality of care beyond personal practice, e.g. QIPAT or evidence of performing an audit

▪ Publications

CiP 6: Acts as a clinical teacher and clinical supervisor

Key skills:

- Delivers effective teaching and training to medical students, junior doctors and other healthcare professionals
- Delivers effective feedback with action plan
- Able to supervise less experienced trainees in their clinical assessment and management of patients
- Able to supervise less experienced trainees in carrying out appropriate practical procedures
- Able to act as a clinical supervisor to doctors in earlier stages of training

Suggested documentation:

- Reports from consultants who have worked with you, such as the Multiple Consultant Report (MCR), end of placement and appraisal reports
- Feedback from a variety of clinical and non-clinical colleagues who have worked with you, such as the Multisource Feedback (MSF)

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- Completion of relevant training course(s), such as management or leadership courses
- Feedback from formal teaching sessions to medical and non-medical staff:
 - Teaching Observation (TO) or other observational assessment of teaching

Internal Medicine Clinical CiPs

Applicants must demonstrate that they are currently practising at the level of 'entrusted to act independently' in all clinical CiPs. Further detail regarding the descriptors for the key skills in each clinical CiP can be found in the [curriculum](#).

CiP 1: Managing an acute unselected take

Key skills:

- Demonstrates professional behaviour with regard to patients, carers, colleagues and others
- Delivers patient centred care including shared decision making
- Takes a relevant patient history including patient symptoms, concerns, priorities and preferences
- Performs accurate clinical examinations
- Shows appropriate clinical reasoning by analysing physical and psychological findings
- Formulates an appropriate differential diagnosis
- Formulates an appropriate diagnostic and management plan, taking into account patient preferences, and the urgency required
- Explains clinical reasoning behind diagnostic and clinical management decisions to patients/carers/guardians and other colleagues
- Appropriately selects, manages and interprets investigations
- Recognises need to liaise with specialty services and refers where appropriate

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Suggested documentation:

- Reports from consultants who have worked with you, such as the Multiple Consultant Report (MCR)
- Feedback from a variety of clinical and non-clinical colleagues who have worked with you, such as the Multisource Feedback (MSF)
- Logbook of cases
- Evidence of simulation
- Assessment of acute care such as ACATs
- Evidence of discussing or reflecting on your professional judgement in a clinical case, such as a CbD

CiP 2: Managing the acute care of patients within a medical specialty service

Key skills:

- Able to manage patients who have been referred acutely to a specialised medical service as opposed to the acute unselected take (e.g. cardiology and respiratory medicine acute admissions)
- Demonstrates professional behaviour with regard to patients, carers, colleagues and others
- Delivers patient centred care including shared decision making
- Takes a relevant patient history including patient symptoms, concerns, priorities and preferences
- Performs accurate clinical examinations
- Shows appropriate clinical reasoning by analysing physical and psychological findings
- Formulates an appropriate differential diagnosis
- Formulates an appropriate diagnostic and management plan, taking into account patient preferences, and the urgency required
- Explains clinical reasoning behind diagnostic and clinical management decisions to patients/carers/guardians and other colleagues
- Appropriately selects, manages and interprets investigations

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- Demonstrates appropriate continuing management of acute medical illness in a medical specialty setting
- Refers patients appropriately to other specialties as required

Suggested documentation:

▪ Reports from consultants who have worked with you, such as the Multiple Consultant Report (MCR), end of placement and appraisal reports
▪ Feedback from a variety of clinical and non-clinical colleagues who have worked with you, such as the Multisource Feedback (MSF)
▪ Minimum of one of each of the below: <ul style="list-style-type: none"> • Evidence of discussing or reflecting on your professional judgement in a clinical case, such as a CbD Assessments of acute care such as an ACAT
▪ Logbook of cases
▪ Evidence of simulation training and assessment

CiP 3: Providing continuity of care to medical inpatients, including management of comorbidities and cognitive impairment

Key skills:

- Demonstrates professional behaviour with regard to patients, carers, colleagues and others
- Delivers patient centred care including shared decision making
- Demonstrates effective consultation skills
- Formulates an appropriate diagnostic and management plan, taking into account patient preferences, and the urgency required
- Explains clinical reasoning behind diagnostic and clinical management decisions to patients/carers/guardians and other colleagues

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- Demonstrates appropriate continuing management of acute medical illness inpatients admitted to hospital on an acute unselected take or selected take
- Recognises need to liaise with specialty services and refers where appropriate
- Appropriately manages comorbidities in medical inpatients (unselected take, selected acute take or specialty admissions)
- Demonstrates awareness of the quality of patient experience

Suggested documentation:

▪ Reports from consultants who have worked with you, such as the Multiple Consultant Report (MCR), end of placement and appraisal reports
▪ Feedback from a variety of clinical and non-clinical colleagues who have worked with you, such as the Multisource Feedback (MSF)
▪ Assessments of acute care such as ACATs
▪ Assessment of observed clinical skills, attitudes and behaviours, such as a Mini-CEX
▪ Direct observation of procedural skills such as DOPS

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CiP 4: Managing patients in an outpatient clinic, ambulatory or community setting (including management of long term conditions)

Key skills:

- Demonstrates professional behaviour with regard to patients, carers, colleagues and others
- Delivers patient centred care including shared decision making
- Demonstrates effective consultation skills
- Formulates an appropriate diagnostic and management plan, taking into account patient preferences
- Explains clinical reasoning behind diagnostic and clinical management decisions to patients/carers/guardians and other colleagues
- Appropriately manages comorbidities in outpatient clinic, ambulatory or community setting
- Demonstrates awareness of the quality of patient experience

Suggested documentation:

- Reports from consultants who have worked with you, such as the Multiple Consultant Report (MCR), end of placement and appraisal reports
- Assessments of acute care such as ACATs
- Assessment of observed clinical skills, attitudes and behaviours, such as a Mini-CEX
- Feedback from patients such as a Patient Survey
- Letters generated at outpatient clinics

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CiP 5: Managing medical problems in patients in other specialties and special cases

Key skills:

- Demonstrates effective consultation skills (including when in challenging circumstances)
- Demonstrates management of medical problems in inpatients under the care of other specialties
- Demonstrates appropriate and timely liaison with other medical specialty services when required

Suggested documentation:

- | |
|---|
| ▪ Reports from consultants who have worked with you, such as the Multiple Consultant Report (MCR), end of placement and appraisal reports |
| ▪ Assessments of acute care such as ACATs |
| ▪ Evidence of a case-based discussion with a consultant to assess professional judgement, such as a CbD |

CiP 6: Managing a multi-disciplinary team including effective discharge planning

Key skills:

- Applies management and team working skills appropriately, including influencing, negotiating, continuously re-assessing priorities and effectively managing complex, dynamic situations

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- Ensures continuity and coordination of patient care through the appropriate transfer of information demonstrating safe and effective handover
- Effectively estimates length of stay
- Delivers patient centred care including shared decision making
- Identifies appropriate discharge plan
- Recognises the importance of prompt and accurate information sharing with primary care team following hospital discharge

Suggested documentation:

- | |
|---|
| ▪ Reports from consultants who have worked with you, such as the Multiple Consultant Report (MCR), end of placement and appraisal reports |
| ▪ Feedback from a variety of clinical and non-clinical colleagues who have worked with you, such as the Multisource Feedback (MSF) |
| ▪ Assessments of acute care such as ACATs |
| ▪ Discharge summaries, including reason for admission, findings, treatment plan and patient health on discharge |

CiP 7: Delivering effective resuscitation and managing the acutely deteriorating patient

Key skills:

- Demonstrates prompt assessment of the acutely deteriorating patient, including those who are shocked or unconscious
- Demonstrates the professional requirements and knowledge of legal processes associated with consent for resuscitation

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- Participates effectively in decision making with regard to resuscitation decisions, including decisions not to attempt CPR, and involves patients and their families
- Demonstrates competence in carrying out resuscitation

Suggested documentation:

▪ Reports from consultants who have worked with you, such as the Multiple Consultant Report (MCR), end of placement and appraisal reports
▪ Direct observation of procedural skills such as DOPS
▪ Assessments of acute care such as ACATs
▪ Feedback from a variety of clinical and non-clinical colleagues who have worked with you, such as the Multisource Feedback (MSF)
▪ Evidence of learning advanced life support techniques such as an ALS certificate
▪ Record of procedures and clinics undertaken such as a logbook
▪ Written reflections on learning and experience
▪ Evidence of simulation

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CiP 8: Managing end of life and applying palliative care skills

Key skills:

- Identifies patients with limited reversibility of their medical condition and determines palliative and end of life care needs
- Identifies the dying patient and develops an individualised care plan, including anticipatory prescribing at end of life
- Demonstrates safe and effective use of syringe pumps in the palliative care population
- Able to manage non complex symptom control including pain
- Facilitates referrals to specialist palliative care across all settings
- Demonstrates effective consultation skills in challenging circumstances
- Demonstrates compassionate professional behaviour and clinical judgement

Suggested documentation:

- Reports from consultants who have worked with you, such as the Multiple Consultant Report (MCR), end of placement and appraisal reports
- Evidence of a case-based discussion with a consultant to assess professional judgement, such as a CbD
- Assessment of observed clinical skills, attitudes and behaviours, such as a Mini-CEX
- Feedback from a variety of clinical and non-clinical colleagues who have worked with you, such as the Multisource Feedback (MSF)
- Evidence of regional teaching
- Written reflections on learning and experience

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Specialty Specific CiPs

Applicants must demonstrate that they are currently practising at the level of 'entrusted to act independently' in all specialty CiPs. Further detail regarding the descriptors for the key skills in each specialty specific CiP can be found in the [curriculum](#).

Specialty CiP 1: Coronary disease and intervention: manage coronary artery disease and associated conditions

Key skills:

- Assess, investigate and instigate management in the patient presenting with symptoms suggestive of acute coronary syndromes including coordinating the primary percutaneous coronary intervention service and managing differential diagnoses
- Assess, investigate and instigate management in the patient presenting with symptoms suggestive of stable ischaemia including use of non-invasive investigations and management of differential diagnoses
- Appropriately prescribe anti-anginal, anti-platelet and anti-coagulant agents
- Appropriately manage patients before and after percutaneous coronary intervention
- Manage patients with angina and related conditions refractory to anti-anginal medication and revascularisation
- Manage presentations consistent with ischaemia with unobstructed coronary arteries
- Identify and treat risk factors for primary and secondary prevention of cardiovascular events, appropriately refer to and support the cardiac rehabilitation and inherited cardiac conditions/cardio-genetics services
- Provide advice to primary care on management of patients with known or suspected cardiac problems in the community. Recognise the interaction between other forms of physical and mental health and cardiac risk
- Provide cardiology advice on management of patients under other specialities including intensive care, cardiac and non-cardiac surgery
- Present and discuss patients with coronary artery disease and associated conditions at Heart Team and other multidisciplinary team meetings
- Perform invasive coronary angiography under supervision
- Insert arterial lines and central venous cannulae independently
- Recognise signs and symptoms and initiate treatment of coronary artery disease presenting in pregnancy

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Suggested documentation:

▪ Reports from consultants who have worked with you, such as the Multiple Consultant Report (MCR), end of placement and appraisal reports
▪ Procedural skills assessments such as DOPS in coronary angiography
▪ Assessments of acute care such as ACATs
▪ Evidence of participation in heart team or multidisciplinary team meetings
▪ Evidence of discussing reflecting on your professional judgement in a clinical case, such as a CbD
▪ Evidence of chronic disease management, such as CBDs, correspondence with primary care and rehabilitation services.
▪ Record of procedures and clinics undertaken such as a logbook
▪ Written reflections on learning and experience
▪ Evidence of simulation
▪ Evidence of attendance at formal teaching/CPD events
▪ British Association of Cardiopulmonary Rehabilitation (BACPR) online learning module

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Specialty CiP 2: Management of valvular heart disease, aortopathy and cardiac tumours

Key skills:

- Assess, investigate and instigate management in patients presenting with symptoms or signs suggestive of structural heart disease
- Manage the acutely unwell patient with structural heart disease including suspected and proven endocarditis
- Plan and conduct clinical follow up of patients with known structural heart disease, provide advice to patients and practitioners peri-procedurally for endocarditis prevention and management of anti-coagulation
- Manage patients with, or at risk of, aortopathy and recognise the need for pre-conceptual counselling and specialist care in pregnancy
- Appropriately refer to and support inherited cardiac conditions/cardio-genetics services for relevant patients with aortic and structural heart disease
- Identify, investigate and appropriately refer elective and emergency patients for valve surgery and catheter intervention including discussing patients at multidisciplinary team meetings
- Perform and report an echocardiogram independently across a full range of cardiac pathology
- Understand the indications and limitations of cardiac CT. Report CT coronary angiograms under direct supervision
- Refer appropriately for cardiac and vascular imaging modalities to assess structure, function, ischaemia, viability and infection

Suggested documentation:

- Reports from consultants who have worked with you, such as the Multiple Consultant Report (MCR), end of placement and appraisal reports
- Procedural skills assessments for transthoracic echocardiography and CT coronary angiography.

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▪ Assessments of acute care such as ACATs
▪ Evidence of participation in heart team or multidisciplinary team meetings
▪ Evidence of discussing reflecting on your professional judgement in a clinical case, such as a CbD
▪ Evidence of chronic disease management, such as CBDs, correspondence with primary care and rehabilitation services.
▪ Evidence of consultation with other relevant specialties such as genetics, microbiology.
▪ Record of procedures and clinics undertaken such as a logbook
▪ Written reflections on learning and experience
▪ Evidence of simulation
▪ Evidence of attendance at formal teaching/CPD events
▪ Accreditation from the British Society of Echocardiography in transthoracic echocardiography
▪ BSCI/BSCCT level one accreditation in CT coronary angiography

Specialty CiP 3: Electrophysiology and devices: management of cardiac arrhythmias and cardiac implantable electronic devices

Key skills:

- Assess, investigate and instigate management in acutely unwell patients with arrhythmias
- Assess, investigate and instigate management in patients with suspected arrhythmia including syncope

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- Appropriately request and interpret non-invasive investigations for suspected arrhythmia
- Risk stratify and counsel patients at thrombo-embolic risk from arrhythmias, plan and prescribe anti-coagulation where appropriate
- Demonstrate theoretical knowledge of pathophysiology and pharmacology of arrhythmias, appropriately prescribe rate and rhythm control drugs, including in special circumstances such as pregnancy and breast feeding
- Assess, investigate and instigate management in asymptomatic and symptomatic patients at risk of arrhythmic events including identifying patients who may be indicated cardiovascular implanted electronic devices ('implantable devices') and electrophysiological study and ablation
- Advise patients with cardiac conditions on lifestyle and occupational considerations including safety and legality of driving and implications of pregnancy
- Recognise the psychological and socioeconomic implications of arrhythmias and related conditions on patients and families, act where possible to provide support and mitigate adverse effects
- Identify patients with or at risk of arrhythmias who will benefit from inherited cardiac conditions/cardio-genetics referral.
- Present and discuss patients at arrhythmia and device multidisciplinary team meetings
- Identify and instigate management in patients with complications of devices and ablation
- Perform basic interrogation and programming of implantable devices
- Implant a loop recorder independently
- Implant a transvenous pacemaker under supervision
- Perform temporary transvenous pacing independently
- Perform electrical cardioversion independently

Suggested documentation:

- Reports from consultants who have worked with you, such as the Multiple Consultant Report (MCR), end of placement and appraisal reports
- Procedural skills assessments such as DOPS in temporary pacing, permanent pacemaker implantation (under supervision), DC cardioversion and emergency interrogation of implantable devices

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▪ Assessments of acute care such as ACATs
▪ Evidence of participation in arrhythmia and device multidisciplinary team meetings
▪ Evidence of discussing reflecting on your professional judgement in a clinical case, such as a CbD
▪ Evidence of chronic disease management, such as CBDs, correspondence with primary care and rehabilitation services.
▪ Record of procedures and clinics undertaken such as a logbook
▪ Written reflections on learning and experience
▪ Evidence of simulation
▪ Evidence of attendance at formal teaching/CPD events

Specialty CiP 4: Adult Congenital Heart Disease: Management of adult congenital heart disease and heart disease in pregnancy

Key skills:

- Recognise signs and symptoms suggestive of congenital heart disease in adults
- Instigate appropriate investigation and management in patients with signs and symptoms of congenital heart disease
- Appropriately refer newly diagnosed adults with congenital heart disease to specialist services including inherited cardiac conditions/cardio-genetics where appropriate
- Initiate management in patients with known congenital heart disease during acute cardiac presentations
- Provide advice on patients with congenital heart disease undergoing non-cardiac treatment

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- Manage patients in adult congenital heart disease clinics under supervision
- Prepare and present patients at congenital heart disease multidisciplinary team meetings
- Apply knowledge of the epidemiology, anatomy and pathophysiology of common congenital heart abnormalities to practice
- Support patients transitioning from paediatric to young adult services under supervision
- Provide contraceptive advice and pre-pregnancy counselling for patients with congenital, inherited and acquired cardiac conditions under supervision
- Manage patients with congenital, acquired and inherited heart disease during pregnancy under supervision
- Investigate and instigate management in pregnant patients presenting with cardiac symptoms
- Safely prescribe in pregnant and breast-feeding patients

Suggested documentation:

▪ Reports from consultants who have worked with you, such as the Multiple Consultant Report (MCR), end of placement and appraisal reports
▪ Assessments of acute care such as ACATs
▪ Feedback from a variety of clinical and non-clinical colleagues who have worked with you, such as the Multisource Feedback (MSF)
▪ Evidence of familiarity with the breadth of conditions encountered such as the adult congenital heart disease curriculum tool and the inherited cardiac conditions curriculum tool
▪ Record of clinics undertaken such as a logbook
▪ Written reflections on learning and experience
▪ Evidence of simulation
▪ Evidence of attendance at formal teaching/CPD events

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Specialty CiP 5: Heart Failure: Managing disorders of the heart muscle, pericardium and pulmonary vasculature

Key skills:

- Assess, investigate and instigate management in patients presenting acutely with symptoms suggestive of heart failure
- Recognise, appropriately investigate and initiate treatment in patients presenting with heart failure in pregnancy, including referral for preconception counselling and ongoing management in pregnancy
- Investigate patients with heart failure to identify the underlying aetiology
- Optimise management in patients with established heart failure diagnoses, manage heart failure decompensation, and identify indications for device-based monitoring and therapy
- Manage patients with heart failure syndromes in collaboration with primary and intermediate care
- Appropriately refer to and support cardiac rehabilitation services.
- Identify and refer patients in need of specialist or advanced heart failure services
- Identify patients approaching end of life and collaborate with palliative care team
- Prepare and present cases at the heart failure multidisciplinary team meetings
- Interpret right heart catheterisation data
- Advise on heart failure patients undergoing treatment for non-cardiac conditions
- Apply knowledge of genetics and inherited cardiac conditions to diagnosis and management of patients. Prepare and present patients at inherited cardiac conditions/ cardio-genetics multidisciplinary team meetings. Counsel patients with inherited cardiac conditions under supervision
- Assess, investigate and instigate management in patients presenting with symptoms suggestive of pulmonary vascular disease. Manage patients with pulmonary hypertension and refer to specialist services where appropriate
- Manage patients with cardiac consequences of oncological disease and treatment including in the pre-assessment and late effects settings
- Participate in multi-speciality Cardio-Oncology multidisciplinary team meetings and appropriately refer to specialist Cardio-Oncology services.
- Assess, investigate and instigate management in patients with symptoms suggestive of pericardial disease
- Perform pericardiocentesis independently

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Suggested documentation:

▪ Reports from consultants who have worked with you, such as the Multiple Consultant Report (MCR), end of placement and appraisal reports
▪ Direct observation of procedural skills such as DOPS in pericardiocentesis
▪ Assessments of acute care such as ACATs
▪ Feedback from a variety of clinical and non-clinical colleagues who have worked with you, such as the Multisource Feedback (MSF)
▪ Evidence of understanding of right heart catheterisation data, such as CBD
▪ Evidence of understanding the genetic causes of heart failure such as the inherited cardiac conditions curriculum tool
▪ Evidence of experience in cardio-oncology services, such as logbooks, correspondence.
▪ Record of procedures and clinics undertaken such as a logbook
▪ Written reflections on learning and experience
▪ Evidence of simulation

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Specialty CiP Advanced Themes

Applicants must demonstrate that they are currently practising at the level of 'entrusted to act independently' in one specialty CiP advanced theme. Further detail regarding the descriptors for the key skills in each specialty CiP advanced themes can be found in the [curriculum](#). Only one advanced theme will be assessed, so applicants should select the advanced theme for which they can provide most evidence and not attempt to provide evidence for any other advanced theme.

Specialty CiP Advanced Theme 1: Lead a Coronary Intervention Service

Key skills:

- Use clinical factors and non-invasive investigations to assess ischaemia and viability and plan further management
- Lead multidisciplinary team meetings to discuss merits of medical therapy, percutaneous and surgical options for revascularisation
- Prepare patients to safely undergo invasive coronary investigation and treatment
- Perform left heart catheterisation independently, safely access the arterial system including use of ultrasound guidance, achieve haemostasis including use of closure devices. Safely perform diagnostic cardiac catheterisation and invasive assessment of coronary lesions to assess ischaemia and guide strategies for revascularisation in stable and acute coronary syndromes. Perform and interpret left ventriculography and pressure assessment.
- Independently perform simple percutaneous coronary intervention procedures in stable and acute coronary syndromes
- Independently perform primary percutaneous coronary intervention for acute myocardial infarction
- Perform complex percutaneous coronary intervention in anatomies such as bifurcation lesions, coronary bypass grafts and calcific disease, using appropriate adjunctive technology
- Perform emergency coronary angiography and intervention in shocked patients and after cardiac arrest.

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- Manage haemodynamically unstable in patients before, during and after percutaneous coronary intervention including use of pharmacological and mechanical circulatory support
- Assist in percutaneous revascularisation for chronic total occlusion with understanding of when to refer patient for specialist techniques
- Contribute to pre-pregnancy counselling and pregnancy management of women with coronary artery disease in cooperation with a multidisciplinary specialist maternal cardiology service
- Identify appropriate patients to consider interventions for valvular or structural heart disease including indications and appropriate percutaneous techniques

Suggested documentation:

- | |
|---|
| <ul style="list-style-type: none"> ▪ An itemised logbook of procedures and specialist investigations with a summary sheet of outcomes and complications countersigned by appropriate supervisors as a true record. |
| <ul style="list-style-type: none"> ▪ Supervisor’s report confirming that the candidate is entrusted to act unsupervised in each of the key skills listed above |
| <ul style="list-style-type: none"> ▪ Evidence of recent participation in relevant CPD events. |

Specialty CiP Advanced Theme 2: Lead a Cardiac Imaging Service

Key skills:

- Provide expert advice on use of imaging techniques to manage patients in ischaemia and viability
- Provide expert advice on use of imaging techniques to manage patients with structural heart disease
- Provide expert advice on use of imaging techniques to manage patients with cardiomyopathies
- Provide expert advice on use of imaging techniques to manage patients at with or at risk of disease of the great vessels

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- Provide expert advice on the use of imaging techniques to investigate for potential cardiac infection
 - Provide expert advice on the use of imaging techniques in the investigation of cardiac tumours
 - Provide expert advice on the use of imaging techniques in the management of pericardial disease
 - Weigh the benefits of nuclear, MRI, echo and CT based techniques in clinical scenarios
 - Deliver imaging of patients with adult congenital heart disease in cooperation with ACHD specialists
 - Contribute to pre-pregnancy counselling and pregnancy management of women with acquired structural cardiovascular disease in cooperation with a multidisciplinary specialist maternal cardiology service
 - Identify novel imaging techniques and emerging evidence base or guidelines to apply to patient management
- Lead an imaging service through competence to perform, supervise and teach techniques in at least one and deliver a second out of nuclear, MRI, echo and CT
 - Supervise a nuclear imaging service encompassing assessment of ischaemia, viability, myocardial function and infection.
 - Supervise a cardiac MRI service encompassing ischaemia, viability and structural heart assessments
 - Supervise a cardiac CT service encompassing coronary imaging and structural heart assessment
 - Supervise an echo service encompassing transoesophageal echo, 3D echo techniques, LV strain assessment, stress echocardiography and contrast echo techniques

Suggested documentation:

- An itemised logbook of procedures and specialist investigations with a summary sheet of outcomes and complications countersigned by appropriate supervisors as a true record.
- Supervisor’s report confirming that the candidate is entrusted to act unsupervised in each of the key skills listed above
- Evidence of recent participation in relevant CPD events.
- Accreditation certificates from recognised specialist societies may be provided as supporting evidence

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- Administration of Radioactive Substances Advisory Committee (ARSAC) practitioner licence, if leading a nuclear medicine service

Specialty CiP Advanced Theme 3: Lead an Arrhythmia Management Service

Key skills:

- Provide expert management of patients suffering with or at risk from arrhythmia in general cardiology
- Provide expert input on patients suffering from or at risk of arrhythmia in the inherited cardiac conditions and adult congenital heart disease services
- Provide expert management of patients suffering from or at risk from arrhythmia in cardiac surgical patients
- Contribute to pre-pregnancy counselling and pregnancy management of women with implantable cardiac devices, arrhythmias or risk of arrhythmias in cooperation with a multidisciplinary specialist maternal cardiology service
- Interrogate and reprogram pacemakers and complex devices independently
- Provide expert management of patients with complications of device therapy including identifying indications for lead extraction
- Implant pacemakers independently
- Perform and interpret diagnostic electrophysiological studies under supervision
- Perform atrial flutter, slow pathway and accessory pathway ablation under supervision
- Assist in atrial fibrillation, atrial tachycardia and ventricular ablation
- Assist in implantation of implantable defibrillator and cardiac resynchronisation devices
- Assist in transvenous lead extraction
- Lead an arrhythmia service with full competence to perform and teach at least one of advanced device implantation or advanced ablation capabilities. **Either**
 - Provide expert management of arrhythmias in an ablation service with competence to perform independently and teach diagnostic electrophysiological studies, atrial flutter ablation, accessory pathway ablation, slow pathway ablation, atrial fibrillation ablation and electro anatomical mapping. Perform complex atrial and ventricular ablation under supervision. **Or**
 - Provide expert management of arrhythmias in a complex device implantation service with competence to independently perform and teach implantation of implantable defibrillator and cardiac resynchronisation devices. Advise on indications

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based on evidence base, guidelines and individual patient factors for emerging techniques including

leadless pacing, subcutaneous implantable defibrillator and his bundle pacing.

Suggested documentation:

- An itemised logbook of procedures and specialist investigations with a summary sheet of outcomes and complications countersigned by appropriate supervisors as a true record.
- Supervisor's report confirming that the candidate is entrusted to act unsupervised in each of the key skills listed above
- Evidence of recent participation in relevant CPD events.

Specialty CiP Advanced Theme 4: Lead an Adult Congenital Heart Disease service

Key skills:

- Diagnose, assess and manage adults presenting with new diagnoses of congenital heart disease
- Manage patients with known congenital heart disease transitioning from paediatric to adult care
- Perform transthoracic echocardiography in adults with congenital heart disease and interpret results to manage care
- Perform transoesophageal echocardiography in adults with congenital heart disease and interpret results to manage care
- Understand indications and interpret MRI to investigate adults with congenital heart disease in conjunction with imaging specialists
- Understand indications and interpret CT to investigate adults with congenital heart disease in conjunction with imaging specialists

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- Manage heart failure in adults with congenital heart disease patients
 - Manage arrhythmias in adults with congenital heart disease
 - Manage pulmonary hypertension in adults with congenital heart disease patients in collaboration with National PH Centres
 - Lead the Adult Congenital Heart Disease multidisciplinary team
 - Identify, investigate, counsel and refer patients appropriately for surgical and catheter interventions
 - Contribute to the care of the peri-operative adult patients with congenital heart disease in theatre, intensive care and the ward
 - Manage adult patients with congenital heart disease patients after interventional procedures, in conjunction with the procedural team
- Identify adult patients with congenital heart disease with indications for cardiac transplantation. Investigate, counsel and refer patients appropriately
 - Diagnose and manage the long-term sequelae of native, repaired and palliated congenital heart disease lesions
 - Identify adults with congenital heart disease who would benefit from supportive and palliative care, refer and share care appropriately
 - Contribute to pre-pregnancy counselling and pregnancy management of women with congenital heart disease in cooperation with a multidisciplinary specialist maternal cardiology service
 - Assist with diagnostic catheterisation and intervention in the adults with congenital heart disease

Suggested documentation:

An itemised logbook of procedures and specialist investigations with a summary sheet of outcomes and complications countersigned by appropriate supervisors as a true record.

- Supervisor's report confirming that the candidate is entrusted to act unsupervised in each of the key skills listed above
- Evidence of recent participation in relevant CPD events.

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Specialty CiP Advanced Theme 5: Lead a Heart Failure Service

Key skills:

- Provides expert management of inpatients with heart failure both as primary responsible physician and through consultation
- Provides expert leadership of an outpatient service for heart failure assessment and management across community, secondary and tertiary care.
- Is an expert in the diagnosis and management of heart failure syndromes including rare causes of heart failure
- Manages heart failure patients with co-morbidity and frailty in conjunction with the multidisciplinary team
- Assess and refers suitable heart failure patients for transplantation and mechanical support, manages patients post heart transplantation or with mechanical support in conjunction with specialist services
- Investigates and manages patients with heart failure and related problems due to cancer or cancer therapy
- Investigates and treats patients with heart failure and pulmonary hypertension; refers to, and manages in conjunction with, specialist services
- Manages patients with hereditary heart failure conditions in conjunction with the Inherited Cardiac Conditions service
- Contribute to pre-pregnancy counselling and pregnancy management of women with or at risk of heart failure in cooperation with a multidisciplinary specialist maternal cardiology service
- Assesses prognosis in heart failure, communicates effectively with patients and family including breaking bad news. Recognises and manages patients requiring end of life care collaborating with palliative care team.
- Is an expert in interpretation of transthoracic echocardiography in heart failure
- Understands and can interpret the reports of Cardiovascular MRI, nuclear and Cardiac CT scans in heart failure
- Interpret cardio-pulmonary exercise test data to guide heart failure management
- Interprets right heart catheterisation independently
- Interprets heart failure diagnostics on implantable devices to help in patient management.

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Suggested documentation:

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