

Cardiology

This guidance is to help doctors who are applying for entry onto the Specialist Register with a CESR in Cardiology. You will also need to read the [Cardiology Curriculum documentation](#)

Can I get advice before I submit my application?

You can [contact us](#) and ask to speak to the Specialist Applications team for advice before you apply.

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

The indicative period of training for a CCT in Cardiology is seven years and few applicants would achieve the competencies required for a CCT in a shorter period of time.

The structure of the programme is an indicative two years in Core Medical Training or Acute Care Common Stem (ACCS) followed by an indicative five years of training in cardiology. Therefore applicants need to demonstrate that they have achieved the competencies in both of these areas.

This list is given for example purposes only and is not exhaustive – for a complete list refer to the [Cardiology Curriculum documentation](#).

Submitting your evidence

Do not submit original documents.

All your copies, 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](#).

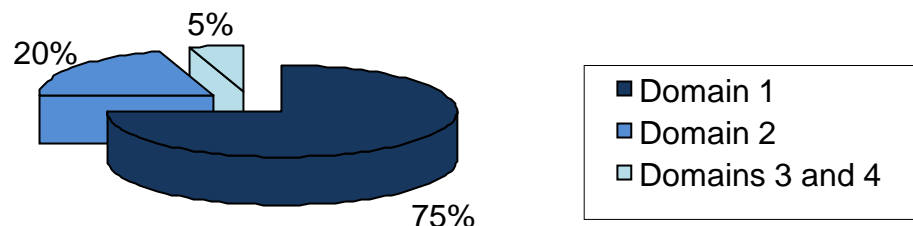
How much evidence to submit

This guidance on documents to supply is not exhaustive and you may have alternative evidence. We recognise that you may not have all the evidence listed here and you may wish to delay submitting an application until you are able to gather it.

Your evidence **must** cover the knowledge, skills and qualifications to demonstrate the required competencies in all areas of the [Cardiology Curriculum documentation](#). If evidence is missing from one area of the curriculum for example, then the application may fail.

If you have a piece of evidence that is relevant to more than one domain, do not include multiple copies in your bundle. Instead, include one copy and list it in your evidence list under each relevant area, stating that the document is located elsewhere. (For example you might state: "document included in teaching and training section, please cross-reference".)

Evidence breakdown



It will help us to deal with your application more quickly if you make sure that you send us only evidence that is directly relevant.

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.

Evidence that is more than five years old will be given less weight than more recent evidence, so you may not need to include it. As a general guide, we would usually expect to see around 800 - 1000 pages of evidence. **If you're submitting a lot more evidence than this, you're likely to be providing evidence that is repetitive and irrelevant, which will not enhance your chances of a successful application.**

Types of evidence are divided into four different domains. We recommend that you apportion the evidence you provide with your application as shown in the pie chart.

Domain 1: 75%

Domain 2: 20%

Domains 3 and 4: 5%

It is important to note that you will not be able to compensate for shortfalls in your evidence of training and experience in a particular area of the curriculum by providing extra evidence in other areas

A message from the Specialist Advisory Committee (SAC) in Cardiology

Before making your application for CESR in Cardiology you are encouraged to review this document in conjunction with the CCT curriculum in Cardiology. You will need to ensure, through the documentary evidence you provide, that you have demonstrated equivalence to the standards set out in the curriculum. In order to do this, you must use the appendices at the end of this document. You'll need to copy the relevant appendices in to an editable document so you can complete them in full. This will allow you to demonstrate to the evaluators where the evidence relating to each competence is located in your evidence bundle. With regards to advanced training, ensure you follow the guidance at the end of Appendix A to confirm the relevant appendices you'll need to complete.

Please provide the checklist with your CV at the beginning of your application evidence. The checklist is designed to help you increase your chances of a successful application by making it clear that you've adequately evidenced each competence. It's important you use the checklist as it will enable you to see where there might be gaps in your evidence and it allows you to indicate to the evaluators where they might find the relevant evidence.

Some of the common reasons why applications are unsuccessful include lack of:

- **Core medical training competencies:** CESR applications in Cardiology need to demonstrate core medical knowledge and an application of this knowledge in practice. MRCP (UK) is the most effective way to demonstrate core medical knowledge; however this alone is not sufficient to demonstrate the breadth of core

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competencies. In order to demonstrate core competencies applicants need to provide:

- MRCP (UK) and evidence showing the application of core skills. This evidence could include supervised learning events (SLEs)/workplace based assessments (WPBAs), multisource feedback (MSF), quality improvement projects and direct observation of procedures (DOPS).

Or

- Evidence of rigorous evaluation of core knowledge and clinical skills either by examination or suitable alternative assessment (to the same level as MRCP (UK) or above) and evidence showing the application of core skills. This evidence could include supervised learning events (SLEs)/workplace based assessments (WPBAs), multisource feedback (MSF), quality improvement projects and direct observation of procedures (DOPS).
- **Appraisals and assessments:** Evidence of on-going formal appraisal and assessment is essential to demonstrate the competencies outlined in the Cardiology CCT curriculum.
- **360 and MSF feedback:** You must ensure that your evidence in this section is recent.
- **Teaching feedback**
- **Audits:** You must show recent evidence of audits and ensure that it demonstrates completion of the audit loop (a re-audit). You should submit evidence of at least two completed audits.
- **Clarity in the presentation of your evidence** – it is vital that your evidence is well organised and clearly structured. You should clearly indicate where in your application the evidence referring to each particular curriculum competency can be found. You should complete the checklist in appendix A carefully and completely and submit it with your evidence.
- **Advanced training:** Please make sure that it is clear in your application which area or areas of advanced training you wish to have assessed, ensuring this reflects the modules outlined in the curriculum. You should complete the relevant appendices for your advanced area/s.

As per the Cardiology curriculum, candidates are expected to have undertaken advanced training in specialist area modules of their choice. CESR applicants should demonstrate competence in 4 or 5 'units' in order to demonstrate equivalent competence to CCT. The specialist areas and their modular weightings are as follows (select up to 5 units to be assessed):

Module	Description	Units
1a	Adolescent and Adult Congenital Heart Disease (Cardiologist with a special interest in ACHD) <i>Please complete appendix B.</i>	2
	Specialist ACHD Cardiologist	4
1b	Heart Disease in Pregnancy (must be attached to ACHD) <i>Please complete appendix C.</i>	1
2	Advanced Rhythm Management EP + Devices	4
	Advanced Rhythm Management Device Therapy <i>Please complete appendix D.</i>	2
3	Heart Failure	2

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	<i>Please complete appendix E.</i>	
4	Coronary Intervention <i>Please complete appendix F.</i>	4
5a	Advanced Echocardiography 1	2
5b	Advanced Echocardiography 2	4
5c	Nuclear Cardiology	2
5d	Cardiac MR	2
5e	Cardiac CT <i>For all Cardiac Imaging please complete appendix G.</i>	2
6	Core Skills in Inherited Cardiovascular Conditions <i>Please complete appendix H.</i>	1

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
- 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

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on our [website](#).

Domain 1 - Knowledge, skills and performance

Qualifications

<p>Primary medical qualification (PMQ)</p> <p>If you do not hold registration, please provide an authenticated copy of your PMQ.</p>	<p>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.</p>
<p>Specialist medical qualification(s)</p> <p>Please provide an authenticated copy of any specialist medical qualifications you hold.</p>	<p>For College examinations the College may confirm details of any examinations you have undertaken. Applicants must demonstrate an appropriate test of knowledge to that required for the CCT which is the Knowledge Based Assessment in Cardiology.</p> <p>The College has curricula and syllabi for the following:-</p> <p>A Competency Based Curriculum for Specialty Training in Cardiology</p> <p>If your Specialist qualification is covered by this document then curricula/syllabi do not need to be submitted with your application.</p> <p>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 therefore two applicants with the same qualifications but different training and/or experience may not receive the same decision.</p> <p>Please list unsuccessful attempts at examinations (where you have not subsequently been successful) in the application form.</p>
<p>Curriculum or syllabus (if undertaken outside the UK)</p>	<p>Please provide a copy of your curriculum or syllabus.</p> <p>This should include the requirements of the qualification and must relate to the specialty in which you are applying. The curriculum or syllabus (including assessment methods) must be the one 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>For qualifications, we will look to evaluate:</p> <ul style="list-style-type: none">• where the curriculum covers areas of the CCT curriculum• the complexity of the work undertaken• how examinations are evaluated or quality assured (external assessment).

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<p>Specialist registration outside the UK</p> <p>Please provide an authenticated copy of details of the registration requirements of that authority.</p>	<p>The JRCPTB does not currently have any of documents relating to overseas training programmes and therefore applicants must supply these.</p> <p>This will demonstrate what is expected of a registrant by that authority and how your application for registration was evaluated.</p>
<p>Honours and prizes</p>	<p>The JRCPTB does not currently have any of documents relating to specialist registration outside the UK and therefore applicants must supply these.</p> <p>Please provide copies of certificates or letters showing what the prize or honour was for, including the selection and eligibility criteria and pool of eligible individuals.</p> <p>Where you have not provided evidence of success in an examination that is a requirement of the CCT curriculum, evidence in this area may contribute to your demonstration of equivalent knowledge.</p>
<p>Other relevant qualifications and certificates</p>	<p>You should provide evidence of having attended the following mandatory courses:</p> <ul style="list-style-type: none"> • Advanced Life Support (ALS) (valid) • IRMER (valid) <p>ALS certificates are valid for four years; your certificate should be in date at the time of your application.</p> <p>Other examples of evidence in this area could be: degrees or diplomas in relevant areas such as management, business, IT, communication, education or law. Please provide copies of certificates, degrees or diplomas in relevant areas such as management, business, IT, communication, education or law.</p>

Assessments and appraisals

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<p>Appraisals and assessments</p>	<p>Appraisals</p> <p>All applicants must submit evidence of engagement with the appraisal process. For non-training posts you should provide evidence of ongoing evaluation of your performance.</p> <p>This may take the format of formal appraisals by the department head or line manager (clinical director, medical director, professor).</p> <p>In the UK, 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 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. Those working in a NHS or managed environment should submit evidence of annual appraisals. Where an applicant is not based in the UK alternative forms of appraisal are strongly advised.</p> <p>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 There are many different forms of assessment which form part of the various CCT curricula. Many of these tools are available for those not in training to use.</p> <p>Assessments</p> <p>Supervised learning events should be performed by a number of different assessors, across the breadth of the curriculum. This should include:</p> <ul style="list-style-type: none"> • 5 CbDs or mini-CEXs per year for the past five year • 2 ACATs per year, for the past five years, to cover advanced and core competencies which are listed in the ARCP decision aid. • A minimum of 3-6 DOPS per year for the past five years.
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<p>RITAs, ARCPs and training assessments</p>	<p>Formal records of assessment have been in place in the UK since 1996 (for posts of Registrar, Specialist Registrar, and Specialty Registrar). If you have undertaken training in the UK in these grades you should provide a copy of your formal records. In addition if you held any of these approved training posts (except locum posts), please provide evidence of your training number.</p> <p>If you have undertaken training outside the UK you must provide evidence of formal periodic assessment during your training, for each year of training undertaken. 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, you must provide the curriculum to demonstrate how you were assessed. A detailed letter of verification from an educational supervisor would satisfy this requirement.</p> <p>If that training was recognised by relevant authorities outside the UK please provide evidence and recognition standards.</p> <p>If areas for development were highlighted please provide evidence to demonstrate that you have subsequently addressed them There are many different forms of assessment which form part of the CCT curriculum. Many of these tools are available for those not in training to use, e.g. via e-portfolio use and structured educational supervisor reports</p>
<p>360° and multi-source feedback</p>	<p>You must supply recent feedback from colleagues of all levels (peers, nursing, auxiliary staff, patients, management) completed at the time. Ideally these would be in the form of multi-source feedback (MSF) assessment and patient surveys, which are available on the UK e-portfolio and may be in the format of letters, references for posts applied for etc.</p> <p>Template forms for MSF are available on the JRCPTB website document library - https://www.jrcptb.org.uk/document-library. Evidence from alternative systems used within the UK or overseas based on a similar methodology will be considered and evaluated individually.</p>
<p>Awards and discretionary points letters</p>	<p>You should provide copies of certificates/ letters.</p>
<p>Personal development plans (PDP)</p>	<p>For details of what to include please see NHS appraisal information</p> <p>You must also provide evidence of review of your PDP at appraisal. PDPs normally form part of your annual appraisal system and you should submit them with appraisal documentation.</p>

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Logbooks, records of daily clinical practice and portfolios

The evidence you supply here **must** demonstrate that you have achieved **all** the requirements and competencies as set down in the CCT curriculum for your specialty.

Where you have, for a substantial period of time, worked in a specialised area, you should submit evidence that at one stage in your career you achieved the requirements and competencies of the curriculum for your specialty and that have maintained these skills. You will also need to provide evidence that your current specialised practice allows you to meet all of the requirements of [Good Medical Practice](#).

Reports of individual cases undertaken in the lab, echocardiogram or other imaging reports, or clinic letters are not evidence of training or learning and submitting a large number of these will not help your application and may make it more difficult for assessors to find relevant evidence. **Such individual patient records should be used very sparingly and only to demonstrate your experience of unusual presentations or difficult procedures.**

Logbooks

All evidence in this area **must** be **anonymised** for individual patient data.

All patient names (first and last), contact details (including full address) and any patient ID numbers (such as NHS numbers or hospital numbers) must be removed from your evidence before you submit it to us.

Photocopies of operating lists and theatre record books are not satisfactory evidence of procedures. If you did not complete a logbook at the time you undertook the procedures, you should create a logbook from the information you have. It should contain the following information:

- only procedures that you were personally involved in
- age and gender
- date of the procedure
- full name of the procedure
- your role in the procedure (assisted, performed personally, performed under direct supervision of someone more senior, supervised a junior)
- any critical incidents
- name of the hospital or clinic where procedure was performed
- outcomes data.

For guidance on the most appropriate format for your logbook please refer to www.jrcptb.org.uk where you can obtain a copy of the electronic logbook.

Keeping a logbook as part of everyday practise is recommended.

For those who have not completed a log book as they have gone along (although this is not advisable), should provide educational supervisor reports, evidence of completed WPBAs and courses attended.

Those that have been working less than full time should demonstrate (normally through their log book) that they have undertaken pro rata duties including on-call and other out of hours commitments) required of their full-time

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colleagues.

It is important that these cover the full range of the curriculum demonstrating the breadth and depth of the specialty. This may mean that you have to go back further than 5 years, though evidence within the past 5 years will be given more weight. **Please do not provide logbooks from more than 7 years ago.**

If your Advanced Specialist Areas include **Advanced Rhythm Training**, it is likely that in order to gain sufficient experience candidates would be expected to have performed:

Implantable Devices for Managing Arrhythmias:

- Implantation of 100 systems by the candidate
- 100 follow up patients requiring pacemaker interrogation and/or programming
- Implantation of 25 ICDs
- Supervision of 50 patients in programming clinics
- Implantation of 30 BiV devices and their programming and optimisation in a minimum of 30 patients with Heart failure using modern techniques such as tissue Doppler imaging (if module 5 completed).

Electrophysiology and Catheter Ablation:

- 100 radiofrequency ablation procedures
- 20 ventricular tachycardia programmed stimulation studies

If your Advanced Specialist Areas include **Interventional Cardiology** it is likely that in order to gain sufficient experience by the end of their training, the trainee will have performed at least 200 procedures as first or only operator.

If your Advanced Specialist Areas include **Cardiac Imaging** you should use the below as a guide:

Advanced Echocardiography 1 – Advance TTE (100 cases), Standard TOE (100 cases)

Advanced Echocardiography 2 – Advanced TOE (75 cases), Stress Echocardiography (100 cases)

Nuclear Cardiology:

- Stress, supervision of 150 stress tests, of which a minimum of 25 should be with each form of stress (exercise, vasodilator drug, inotropic drug). Tracer handling, calibration and injection of 50 perfusion tracer doses, of which at least 25 should have been during stress
- SPECT acquisition, acquisition of 100 SPECT scans, of which a minimum of 25 should be with gating
- SPECT processing, processing of 250 SPECT studies (i.e. patients)
- ERNV, performance of 25 ERNV studies, including blood pool labelling, acquisition, and processing

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	<ul style="list-style-type: none"> Reporting, 500 MPS studies (patients) should have been reported by the candidate, of which up to 250 may be archive cases. 25 ERNV studies should have been reported. Of the 500 MPS studies, there should be minimum numbers of cases from each of the following categories: normal with artifact (25), abnormal diagnostic (25), high risk prognostic (25), post MI (25), post CABG (25), pre noncardiac surgery (25), pre-revascularisation (10), hibernation (5), non-atheromatous cardiac disease (5) <p>Cardiac Magnetic Resonance - interpretation of a total of at least 300 CMR studies representing the range of abnormalities observed in practice, but to include substantial proportions (at least 50) of both cardiac and vascular studies. For at least 100 studies, the applicant must be present during the scan, ideally as the primary operator and should perform the analyses and make the initial interpretation.</p> <p>Cardiac Computed Tomography - logbook of your scanning activity should be included.</p> <p>If your Advanced Specialist Areas include Inherited Cardiovascular Conditions you should have a logbook to record patient interactions (inpatient or outpatient, including screening, invasive/non-invasive assessment) and a short description of the case and your reflection for a variety of ICCs. The log should also capture reports of the echocardiograms, advanced imaging (CTs, CMRs and TOEs), advanced arrhythmia testing (pharmacological provocation, invasive EP, signal averaged ECGs) performed on patients with known or suspected ICC.</p>
<p>Consolidation, cumulative data sheets, summary lists and annual caseload statistics</p> <p>All evidence in this area must be anonymised for individual patient data.</p>	<p>You should provide a summary of the total numbers for the various procedures listed in the logbook. This should be completed annually and include your role in the procedure.</p> <p>It is important that the logbooks cover the full range of the curriculum demonstrating the breadth and depth of the specialty. This may mean that you have to go back further than five years.</p>

<p>Medical reports</p> <p>All evidence in this area must and anonymised for individual patient data.</p>	<p>You should provide examples across the breadth of your practice following the Academy of Medical Royal Colleges and NHS agreed format:</p> <p>Standards for the clinical structure and content of patient records</p> <p>You can use these to demonstrate:</p> <ul style="list-style-type: none"> • your involvement or role in cases • the types and complexity of cases you are involved in • your handling of patient paperwork • your respect and protection of confidential information • triangulation with logbook information. <p>All evidence in this area must and anonymised for individual patient data.</p>
<p>Case histories</p> <p>All evidence in this area must be anonymised for individual patient data.</p>	<p>Case histories that you provide should include:</p> <ul style="list-style-type: none"> • dates • diagnosis • nature of your involvement in the management of the case • which curriculum competencies were involved. <p>You can use these to demonstrate:</p> <ul style="list-style-type: none"> • your involvement or role in cases • the types and complexity of cases you are involved in • your handling of patient paperwork • your respect and protection of confidential information • triangulation with logbook information.

<p>Referral letters discussing patient handling</p> <p>All evidence in this area must be anonymised for individual patient data.</p>	<p>Please provide a variety of copies of letters to cover all aspects of your work and to demonstrate the breadth of your practice. This may include examples of letters:</p> <ul style="list-style-type: none"> • requesting a second opinion • advising clinical colleagues or answering particular questions regarding patient management • from clinical colleagues regarding applicants involvement in patient management. <p>You can use these to demonstrate:</p> <ul style="list-style-type: none"> • your involvement or role in cases • the types and complexity of cases you are involved in • your relationship with your colleagues in other disciplines • your handling of patient paperwork • your recognition of the limits of your professional competence • your respect and protection of confidential information.
<p>Patient lists</p> <p>All evidence in this area must be anonymised for individual patient data.</p>	<p>You may wish to include copies of patient lists. You can use these to demonstrate:</p> <ul style="list-style-type: none"> • your involvement or role in cases • the types and complexity of cases you are involved in • your participation in teaching and training (where you are supervising a junior colleague) • the volume of cases you undertake • triangulation with rota, timetable and job plan information • triangulation with logbook information.
<p>Departmental (or trust) workload statistics and annual caseload statistics</p>	<p>You can use these to demonstrate:</p> <ul style="list-style-type: none"> • the size of the hospital in which you work • the volume of work undertaken within your trust and the percentage that you undertake • the range of work that you undertake and that is undertaken within your trust • triangulation with logbook information

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Rotas, timetables and job plans	<p>Where you have undertaken a number of roles provide details for each post or role. You can use these documents to demonstrate:</p> <ul style="list-style-type: none"> • details of clinical and non-clinical duties you undertake • your on-call commitment • your participation in meetings and teaching • triangulation with logbook information.
Courses relevant to curriculum	<p>You should provide evidence of having attended the following mandatory courses:</p> <ul style="list-style-type: none"> • Advanced Life Support (ALS) (valid) • IRMER (valid) <p>Time to be made available for formal courses is encouraged, subject to local conditions of service. Examples include management courses and teaching courses.</p> <p>Any overseas courses will be evaluated in line with UK courses.</p>
Portfolios (electronic or revalidation)	<p>. You need to separate the evidence in it and submit that under the correct headings as set out in this guidance.</p>

Details of posts and duties (including both training and experience posts)

Employment letters and contracts of employment	<p>The information in these letters and contracts must match your CV. They will confirm the following:</p> <ul style="list-style-type: none">• dates you were in post• post title, grade, training• type of employment: permanent, fixed term, or part time (including percentage of whole time equivalent) <p>The content should include evidence of the different work environments/settings defined in the curriculum.</p>
Job descriptions	<p>These must match the information in your CV. They will confirm the following:</p> <ul style="list-style-type: none">• your position within the structure of your department• your post title• your clinical and non-clinical commitment• your involvement in teaching or training. <p>The content should include evidence of the different work environments/settings defined in the curriculum.</p>

Job plans	<p>Where you have undertaken a number of roles, provide details for each post or role. You can use these documents to demonstrate:</p> <ul style="list-style-type: none">• the main duties and responsibilities of the post• your out of hours responsibilities, including rota commitments• that you have covered for colleagues' periods of leave• any professional supervision and management of junior medical staff that you have undertaken• your responsibilities for carrying out teaching, examination and accreditation duties• your contribution to postgraduate and continuing medical education activity, locally and nationally• any responsibilities you had that relate to a special interest• requirements to participate in medical audit and in continuing medical education• your involvement in research• your managerial, including budgetary, responsibilities where appropriate• your participation in administration and management duties.
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Research, publications and presentations

Research papers, grants, patent designs	<p>Please include any research relevant to your current practice.</p> <p>If the research is published - please submit the first page of the published paper.</p> <p>If the research is not published - please provide a summary or abstract of the research.</p> <p>Colleges may undertake web searches to check the information you provide.</p> <p>You can use these documents to demonstrate:</p> <ul style="list-style-type: none">• the types and complexity of cases you are involved in• triangulation with logbook information• training in research methodology and/or conduct research• working with colleagues (where research is joint or multi-disciplinary)• Continuing Professional Development (CPD). <p>Where you have not provided evidence of success in an examination that is a requirement of the CCT curriculum, evidence in this area may contribute to your demonstration of equivalent knowledge.</p>
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<p>Publications within specialty field</p>	<p>You should provide evidence of having contributed to the production of clinical guidelines (local or national) Include a copy of the front page of each publication. More weight is given where:</p> <ul style="list-style-type: none"> • the applicant is first author • the publication has a high impact factor. <p>You must not change the listing of the authors (the order in which the authors are listed) in papers where there is more than one author. Colleges may undertake web searches to check the information you provide. You can use these documents to demonstrate:</p> <ul style="list-style-type: none"> • the types and complexity of cases you are involved in • triangulation with logbook information • working with colleagues (where publications are joint or multi-disciplinary) • CPD. <p>Where you have not provided evidence of success in an examination that is a requirement of the CCT curriculum, evidence in this area may contribute to your demonstration of equivalent knowledge:</p>
<p>Presentations, poster presentations</p>	<p>You may wish to supply invitations to present at national or international meetings to demonstrate your recognition within your specialty. You may also supply feedback from presentations or meeting agendas or programmes that show your participation. You can use these documents to demonstrate:</p> <ul style="list-style-type: none"> • the types and complexity of cases you are involved in • triangulation with logbook information • CPD • teaching and training. <p>Where you have not provided evidence of success in an examination that is a requirement of the CCT curriculum, evidence in this area may contribute to your demonstration of equivalent knowledge.</p>

CPD and CME

<p>CPD record certificates, certificates of attendance, workshops and at local, national and international meetings or conferences</p>	<p>You should provide a variety of these to cover all aspects of your work and to demonstrate the breadth of your practice. Please provide details of the events you have attended describing the content. Support this with documentary evidence of your attendance (CPD certificates, etc.)</p> <p>See the JRCPTB guidelines at www.jrcptb.org.uk.</p>
<p>CPD registration points from UK Medical Royal College (or equivalent body overseas)</p>	<p>Please provide evidence of registration within a formal system. Royal Colleges or Faculties may confirm attainment of their requirements.</p> <p>CPD should include activities both within and outside the institution where you are employed.</p> <p>The Royal College of Physicians guidance on CPD credits confirms that a minimum of 50 CPD credits should be obtained per year, where one credit is based on one hour of educational activity. 25 credits must be from external CPD i.e. outside of the institution where you are working.</p>
<p>Membership of professional bodies and organisations</p>	<p>List the following for your current membership of professional bodies and organisations. Provide documentary evidence showing membership information:</p> <ul style="list-style-type: none">• organisation name• date of joining• status of membership (member, associate, etc.)• how membership is achieved (evaluation, examination, is membership restricted or open to all?) <p>Where membership has been attained through an evaluation or examination and you have not provided evidence of success in an examination that is a requirement of the CCT curriculum, evidence in this area may contribute to your demonstration of equivalent knowledge.</p> <p>See the JRCPTB guidelines at www.jrcptb.org.uk.</p>

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Teaching and training

Teaching timetables	<p>Where you have undertaken a number of roles provide details for each post or role, indicate the level of the teaching. Where teaching is not formal (timetabled) indicate how you participate in teaching.</p> <p>Where you have not provided evidence of success in an examination that is a requirement of the CCT curriculum, evidence in this area may contribute to your demonstration of equivalent knowledge.</p> <p>Timetables to include evidence of</p> <ul style="list-style-type: none">• participation in patient education collaboratively with other members of a multi-professional team;• participation in the teaching of allied health professional
Lectures	<p>Please include evidence showing the audience and topics covered, such as posters advertising event, educational timetable from trust education centre, letter from education centre indicating your involvement in specialty trainee formal education programme. This includes evidence of attendance or speaking at meetings of 'lay' patient support organisations</p> <p>You can use these documents to demonstrate:</p> <ul style="list-style-type: none">• the types and complexity of cases you are involved in• triangulation with logbook information• CPD• teaching and training• communication skills. <p>Where you have not provided evidence of success in an examination that is a requirement of the CCT curriculum, evidence in this area may contribute to your demonstration of equivalent knowledge.</p>

<p>Feedback or evaluation forms from those taught</p> <p>All evidence in this area must be anonymised for individual patient data.</p>	<p>You must provide copies of feedback from teaching events you have participated in. Teaching observation forms can be found on the JRCPTB website document library - https://www.jrcptb.org.uk/document-library. You should submit a minimum of two teaching observations.</p> <p>You can use these documents to demonstrate:</p> <ul style="list-style-type: none"> • the types and complexity of cases you are involved in • triangulation with logbook information • CPD • teaching and training • leadership • relationships with colleagues • communication skills.
<p>Letters from colleagues</p> <p>All evidence in this area must be anonymised for individual patient data.</p>	<p>You can use copies of letters from colleagues to demonstrate similar information to feedback forms (see above).</p>
<p>Attendance at teaching or appraisal courses</p>	<p>Please provide documentary evidence that you attended the courses and information on the content of the course including whether they were generic or aimed at medical professionals.</p>

<p>Participation in assessment or appraisal and appointments processes</p>	<p>You may provide the following types of evidence to support this area:</p> <ul style="list-style-type: none">• copies of invitations to appraisals or assessments including attendance at appraisal/assessment courses• evidence of participation in the Deanery ARCP or RITA processes• evidence of participation in appointments for trainees (including invitations to participate and interview panel information, including attendance at interview and appointment related courses). <p>You can use these documents to demonstrate:</p> <ul style="list-style-type: none">• contribution to postgraduate and continuing medical education activity, locally and nationally• any responsibilities which relate to a special interest• participation in administration, management duties• participation in teaching and training• communication, partnership and teamwork• relationships with colleagues (including giving feedback)• leadership.
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Domain 2 – Safety and quality

Participation in audit, service improvement

Audits undertaken by applicant	<p>You must provide evidence that you have completed a minimum of two audits or quality improvement projects over the last five years. These should demonstrate completion of the audit loop (which includes a re-audit). You should provide evidence of the five stages of the audit process:</p> <ol style="list-style-type: none">1. Definition of criteria and standards2. Data collection3. Assessment of performance against criteria and standards4. Identification of changes (alterations to practice)5. Re-evaluation <p>Evidence you could supply includes:</p> <ul style="list-style-type: none">• audit reports (collections of data alone are not considered as a full clinical audit)• publications• submissions to ethics committee (not satisfactory alone)• presentations of audit work (see above for details required for presentations)• letter from audit or clinical governance lead confirming participation in audit or governance activities• guidelines produced to reflect lessons learned within audit• notes from self-reflective diaries.• evidence of a re-audit <p>You can use these documents to demonstrate:</p> <ul style="list-style-type: none">• the types and complexity of cases you are involved in• triangulation with logbook information CPD• communication, partnership and teamwork• relationships with colleagues, patients• leadership• multi-disciplinary working.
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<p>Reflective diaries</p>	<p>You can use this document to demonstrate</p> <ul style="list-style-type: none"> • triangulation with logbooks • relationships with colleagues • your recognition of the limits of your professional competence • handling of critical incidents or complaints • how you have changed your practice in the light of experiences (part of audit). <p>As this evidence is self-produced for its content to be given weight it must be supported or triangulated by other evidence.</p>
<p>Service Improvement and clinical governance meetings</p> <p>All evidence in this area must be anonymised for individual patient data.</p>	<p>This area could be demonstrated in a number of ways including:</p> <ul style="list-style-type: none"> • invitations to attend meetings • minutes of meetings demonstrating your attendance and participation in the meeting. <p>You can use these documents to demonstrate:</p> <ul style="list-style-type: none"> • communication, partnership and teamwork • relationships with colleagues • leadership • multi-disciplinary working • participation in audit or clinical governance.

Safety

Health and safety	<p>Please provide evidence to support awareness and following Health and Safety requirements.</p> <p>This can be demonstrated by:</p> <ul style="list-style-type: none">• declaration of health on your application form• attendance at appropriate course• involvement in infection control (membership of committees etc.)• logbook information on infections• audit on infections and subsequent changes in activity.• reflective diaries
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Domain 3 – Communication, partnership and teamwork

Communication

Colleagues	<p>Please provide evidence to support your communication with colleagues, both within your immediate team and the wider team (including non-clinical).</p> <p>This can be demonstrated by:</p> <ul style="list-style-type: none">• letters from colleagues (examples of shared cases or "To whom it may concern letters" or testimonials)• letters of correspondence between you and your colleagues, demonstrating collaboration over management of patient care across multidisciplinary teams• management – including organising staff rotas• presentations• copies of appraisals or references written for colleagues (these must be anonymised with relation to colleague data).• 360° feedback• Multiple consultant reports (MCR)• Reflections on working relationships with colleagues <p>You can use these documents to demonstrate:</p> <ul style="list-style-type: none">• communication, partnership and teamwork• relationships with colleagues• leadership• multi-disciplinary working• participation in directorate and management meetings• honesty and objectivity. <p>You should provide evidence of working with:</p> <ul style="list-style-type: none">• Wider healthcare team including Primary Care, intermediate and secondary care teams• Multidisciplinary teams• Community groups <p>These could be demonstrated using the following types of evidence:-</p>
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| | <ul style="list-style-type: none">• newspaper articles• local authority / government meeting minutes,• extracts from websites,• Job descriptions• Articles, publications |
|--|--|

Patients

All evidence in this area **must** be **anonymised** for individual patient data.

This area could be demonstrated in a number of ways including:

- thank you letters and cards from patients
- letters from colleagues (examples of cases shared or "To whom it may concern letters" / testimonials)
- complaints and responses to complaints.

This may include complaints received against your department or a colleague where you have been involved in the resolution. This is to demonstrate how you handle complaints. Having a complaint made against you will not adversely influence your application. **You must anonymise colleague information from this evidence.**

- patient feedback.

You can use these documents to demonstrate:

- communication
- relationships with patients
- honesty and integrity
- protecting patient confidentiality.

You should provide evidence of working with:

- Wider healthcare team including Primary Care, intermediate and secondary care teams
- Multidisciplinary teams
- Community groups

These could be demonstrated using the following types of evidence:-

- newspaper articles
- local authority / government meeting minutes,
- extracts from websites,
- Job descriptions
- Articles, publications

Partnership and teamwork

Working in multidisciplinary teams

All evidence in this area **must** be **anonymised** for individual patient data.

This area could be demonstrated in a number of ways including:

- invitations to attend meetings
- minutes of meetings demonstrating your attendance and participation in the meeting
- job plans which indicate this as a duty
- appraisals which include this information.

You can use these documents to demonstrate:

- communication, partnership and teamwork
- relationships with colleagues
- leadership
- multi-disciplinary working.

You should provide evidence of working with:

- Wider healthcare team including Primary Care, intermediate and secondary care teams
- Multidisciplinary teams
- Community groups

These could be demonstrated using the following types of evidence:-

- newspaper articles
- local authority / government meeting minutes,
- extracts from websites,
- Job descriptions
- Articles, publications

Management and leadership experience

All evidence in this area **must** be **anonymised** for individual patient data.

This area could be demonstrated in a number of ways including:

- invitations to attend meetings
- minutes of meetings demonstrating your attendance and participation in the meeting
- job plans which indicate this as a duty
- appraisals which include this information.
- 360° feedback
- Reflective diaries

You can use these documents to demonstrate:

- communication, partnership and teamwork
- relationships with colleagues
- leadership
- management skills.

You should demonstrate leadership and management in the following areas:

- Education and training of junior colleagues and other members of the healthcare team
- Managing or supporting colleagues in difficulty (e.g. stress, fatigue)
- Delivering high quality care
- Effective handover of care between shifts and teams

Chairing meetings and leading projects

All evidence in this area **must** be **anonymised** for individual patient data.

This area could be demonstrated in a number of ways including:

- invitations to attend meetings
- minutes of meetings demonstrating your attendance and participation in the meeting
- job plans which indicate this as a duty
- appraisals which include this information
- project reports
- letters from colleagues
- publications or presentations.

You can use these documents to demonstrate:

- communication, partnership and teamwork
- relationships with colleagues
- leadership
- multi-disciplinary working
- participation in directorate and management meetings
- CPD.

Where you have not provided evidence of success in an examination that is a requirement of the CCT curriculum, evidence in this area may contribute to your demonstration of equivalent knowledge.

Domain 4 – Maintaining trust

Acting with honesty and integrity

Honesty and integrity	You can demonstrate this with: <ul style="list-style-type: none">• the declarations on your application form• statements from your referees• appraisal forms• having no restrictions on your registration (UK based doctors)• Certificate of Good Standing (overseas based doctors).
Equality and human rights (including disability, human rights, race, religion and ethnicity awareness and equal opportunities)	You can demonstrate this with: <ul style="list-style-type: none">• evidence of attendance at relevant courses (please provide details of course content)• feedback from patients and colleagues• statements from your referees• testimonials.
Data protection	You can demonstrate this with: <ul style="list-style-type: none">• attendance at relevant courses (please provide details of course content)• feedback from patients and colleagues• your application and evidence being appropriately anonymised.

Relationships with patients

<p>Testimonials and letters from colleagues</p> <p>All evidence in this area must be anonymised for individual patient data.</p>	<p>You may include "To whom it may concern letters".</p>
<p>Thank you letters, cards from colleagues and patients</p> <p>Please ensure that these are anonymised (for individual patient data).</p>	<p>Please provide copies of thank you cards. We cannot accept original cards.</p>
<p>Complaints and responses to complaints</p> <p>All evidence in this area relating to the patient must be anonymised as well as any of your colleagues details who are named on the complaint.</p>	<p>This is to demonstrate how you handle complaints. Having a complaint made against you will not adversely influence your application.</p> <p>You may include complaints received against the department within which you worked or one against a colleague where you have been involved in the resolution.</p> <p>You may provide a reflective diary of how you would handle a hypothetical complaint.</p>

Appendices

When submitting your application you need to demonstrate that you have achieved competence in all the areas of the latest curriculum in Cardiology. These appendices are designed to help you demonstrate this as well as help the assessors evaluate your application. You'll need to copy the relevant appendices into an editable document and complete the second column, and then submit a copy of the completed appendices with your application. These need to be submitted with your CV in your evidence. You also need to ensure you have met the logbook requirements noted in 'logbooks' above.

Column 1 Lists the competence required in the curriculum, which you need to provide evidence for

Column 2 In this column you must give examples of evidence you've provided and write which section in your application this evidence can be found. Evidence relevant to more than one competency doesn't need to be provided twice but you must clearly cross reference this in the appendices.

Examples of the information you should provide in Column 2 are: '*DOPS for cardiac catheterisation performed on xxx date*', or '*clinic letter discussing management of a patient with xxx condition written on xxx date*'

Appendix A

a) General medicine competencies relevant to Cardiology

Curriculum competency	Examples of evidence provided and which section of your application this is located in
Chest pain	
Breathlessness	
Syncope and pre-syncope	
Palpitation	
Blackout/collapse	
Shocked patient	
Unconscious patient	
GI bleeding	
Acute confusion	
Medical complications during acute illness and following surgical procedures	

b) Cardiology Core Clinical Syllabus

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Curriculum competency	Examples of evidence provided and which section of your application this is located in
Chest pain	
Stable angina	
Acute coronary syndromes and myocardial infarction	
Acute breathlessness	
Chronic breathlessness	
Heart failure	
Cardiomyopathy	
Patients with valvular heart disease	
Pre-syncope and syncope	
Arrhythmias	
Atrial fibrillation	
Pericardial disease	
Primary and secondary prevention of cardiovascular disease	
Hypertension	
Lipid disorders	
Adult congenital heart disease	
The prevention and management of endocarditis	
Diseases of the aorta and cardiac trauma	
Cardiac tumours	
Cardiac rehabilitation	
Arrhythmias	
Atrial fibrillation	
Pericardial disease	
Primary and secondary prevention of cardiovascular disease	
Hypertension	
Lipid disorders	
Adult congenital heart disease	
The prevention and management of endocarditis	
Diseases of the aorta and cardiac trauma	

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Cardiac tumours	
Cardiac rehabilitation	
Assessment of patients with CV disease prior to non-cardiac surgery	
Assessments of patients prior to cardiac surgery	
Care of patients following cardiac surgery	
Management of critically ill patients with haemodynamic disturbances	
Heart disease in pregnancy	
Resuscitation – basic and advanced life support	
Radiation use and safety	
Community cardiology	
Pulmonary arterial hypertension	
Clinical genetics and inherited cardiovascular conditions	

c) Core Procedures and Investigations

Curriculum competency	Examples of evidence provided and which section of your application this is located in
Basic investigations: ECG, Ambulatory ECG and BP, Exercise Testing, CXR	
Echocardiography	
Nuclear Cardiology	
Cardiac Magnetic Resonance	
Cardiac CT	
Heart Rhythm Training	
Invasive and interventional cardiology	

d) Advanced Specialist Area Modules

Please see the information in the SAC statement at the beginning of this guidance. As per the Cardiology curriculum, candidates are expected to have undertaken advanced training in specialist area modules of their choice. CESR applicants should demonstrate competence in 4 or 5 'units' in order to demonstrate equivalent competence to CCT.

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Appendix B - Adult Congenital Heart Disease

Knowledge

Curriculum competency	Examples of evidence provided and which section of your application this is located in
The anatomy of the heart and great vessels	
Cardiac embryology and development	
Common and rare congenital defects, their morphology and nomenclature	
CHD as a continuum from foetal life to childhood to adult life	
The natural and unnatural (operated) history of simple and complex CHD	
The psycho-social as well as physical impact of CHD on the patient and their family	
The process of transition from childhood and paediatric services to adulthood and adult services	
The ways in which CHD may impact on patient's lifestyle	
How to investigate patients with CHD including the use and interpretation of non-invasive investigations such as echo and CMR, and invasive investigations such as cardiac catheterization and TOE	
The extended role of CMR in the management of patients with ACHD	
Specific arrhythmias associated with congenital cardiac lesions and previous surgery	
The indications for first time and repeated cardiac surgery for ACHD	
Potential complications faced by patients with CHD undergoing non-cardiac surgery	
Patent foramen ovale and secundum ASD defect may not	

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exist in isolation. Know that both are associated with other lesions that may need simultaneous device closure or may make the index defect unsuitable for device closure	
The severity of coexistent acquired lesions such as mitral valve disease may be underestimated in the presence of ASD	
The different types of interatrial communication	
Take a relevant history and perform an appropriate examination?	
Interpret paediatric, and to perform and interpret adult congenital echocardiograms?	
Use echo to analyse the morphology and physiology of simple and complex CHD?	
Interface with paediatric team in the handover of patients from paediatric to adult services?	
Educate adolescents and young adults about their condition and its impact on their life?	
Communicate with the parents and carers of adolescents and young adults, whilst respecting patient confidentiality?	
Communicate effectively within a multi-disciplinary team?	
Communicate sensitively with adolescents and young adults?	
Explain the impact of CHD on adolescent and young adults' leisure and work activities?	
Perform and interpret echocardiograms, including TOE, of patients with ACHD?	
Be able to interpret cardiac MR images?	
Undertake diagnostic cardiac catheterisations in patients with CHD?	
Manage patients with arrhythmias and CHD?	
Recognise the arrhythmias that are peculiar to some forms of CHD and to evaluate patients at particular risk	

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from arrhythmia?	
Explain how patient education can empower young adults to take responsibility for their health?	
Oversee the peri-operative care of patients having surgical correction of CHD and recognise the post-operative and iatrogenic complications faced by patients with complex disease?	
Assess the risk of non-cardiac surgery and provide appropriate advice on peri-operative management to avoid complications; especially the special risks faced by patients with complex disease?	
Perform and analyse TOE to identify different types of ASD and assess suitability for closure?	
Identify contraindications to device closure and evaluate MV disease in the presence of ASD?	
Assess pulmonary vascular resistance in the presence of a shunt and interpret pulmonary haemodynamic data in evaluating the suitability of an intracardiac repair?	

Behaviours

Curriculum competency	Examples of evidence provided and which section of your application this is located in
Appreciation of the importance of empathetic management of patients during the transition from paediatric to adult services?	
Recognition of the importance of a multidisciplinary team in the managements of adolescents and young adults?	
Recognition of how CHD develops and may become modified throughout life through attendance at paediatric and adult CHD clinics?	
Recognition of which patients with CHD need lifelong specialist follow up?	
Appreciation of the psychological impact of ACHD on patients and their families?	

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Appreciation of the complex relationships that sometimes exist between patients with ACHD and their parents or carers?	
Recognition of the different and complementary contributions of different imaging modalities in the assessment of individual congenital cardiac lesions?	
Recognition of the urgency of treatment of arrhythmia in some patients with ACHD?	
Recognition of the need for first time and repeat operations in ACHD?	
Appreciation of the need for effective communication with healthcare professionals involved in the care of ACHD patients undergoing non-cardiac surgery?	
Recognition of the need to audit all CHD activity?	
Recognition of the need to contribute data on all CHD interventions to the national CHD database?	
Recognition of the desirability of a team approach to complex CHD interventions?	
Recognition of the need for continuous TOE or intracardiac echo monitoring during device closure of cardiac defects?	

Appendix C – Heart Disease in Pregnancy

Curriculum competency	Examples of evidence provided and which section of your application this is located in
Corrected and uncorrected congenital heart disease	
Ventricular dysfunction	
Pulmonary hypertension	
Rheumatic heart disease	
Ischaemic heart disease	
Marfan's syndrome and other aortopathies	
Artificial heart valves	
Arrhythmias	

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Contraceptive advice to women with cardiac disease	
Treatment of women with pregnancy-induced cardiac disease	

Appendix D – Advanced Rhythm – Device Therapy (2 units), EP/Ablation Therapy & Devices (4 units)

Pacemaker Implantation and Programming

Curriculum competency	Examples of evidence provided and which section of your application this is located in
Understanding of the basic principles of pacing including electrical parameters and the engineering involved.	
Understanding of pacemaker lead characteristics	
Understanding of published guidelines for implantations of pacemakers and clinical indications	
Understanding of the implantation procedure and cardiac and thoracic anatomy	
Mastery of safe sterile technique for all procedures	
Detailed knowledge of the programming of pacemakers following implantation, including troubleshooting	

ICD Implantation and Programming

Curriculum competency	Examples of evidence provided and which section of your application this is located in
Understanding of the principles and guidelines for ICDs	
Carrying out specialist investigations and treatment for patients who may benefit from ICD implantation	
Understanding of the implantation procedure, the cardiac and thoracic anatomy and safe sterile technique for the procedure	
The ability to implant single and dual chamber ICDs, and recognise and treat complications which may occur	
To be able to program ICD's appropriately including troubleshooting	

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The Mechanisms of Arrhythmias, Complex Electrocardiology and the Principles of Intracardiac Electrophysiology

Curriculum competency	Examples of evidence provided and which section of your application this is located in
The Mechanisms of Arrhythmias, Complex Electrocardiology and the Principles of Intracardiac Electrophysiology	

Intracardiac Electrophysiology Techniques

Curriculum competency	Examples of evidence provided and which section of your application this is located in
Evaluation of a patient presenting with a sustained narrow complex tachycardia and identification of all possible electrophysiological mechanisms	
Ability to elicit key factors in the history to help to distinguish between different SVTs	
Understanding of and the ability to direct autonomic manoeuvres in a clinic setting	
Ability to select appropriate investigations to help diagnose the presenting arrhythmia	
Selection of patients appropriate for electrophysiological studies and catheter ablation	
Ability to safely and competently carry out an invasive electrophysiological study and interpret the findings	
Ability to perform curative catheter ablation procedures	
Ability to safely and competently manage all drug therapy associated with care of the patient	

Multi-site Ventricular Pacing for Cardiac Resynchronisation

Curriculum competency	Examples of evidence provided and which section of your application this is located in
Appreciation of the role CRT plays in the management of patients with CHF	
Ability to undertake implantation of CRT devices with a	

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high probability of success	
Ability to recognize and deal with complications of implant or device behaviour	
Ability to be able to optimize therapy delivery	

Pacing/ICD Lead Extraction Techniques

Curriculum competency	Examples of evidence provided and which section of your application this is located in
Understanding of the engineering of endocardial leads	
Use of safe sterile techniques for all procedures	
Ability to select appropriate cases for endocardial lead extraction	
Ability to safely extract pacing leads using all available technology	
Ability to foster a team approach to lead extraction including a close relationship with cardiac surgeons	

Ablation of SVT, Typical Atrial Flutter and Normal Heart Ventricular Tachycardia

Curriculum competency	Examples of evidence provided and which section of your application this is located in
Understanding of the principles and practical aspects of the use of conventional intracardiac recording to define the mechanism and precise site of origin of clinical cardiac arrhythmias	
Understanding of the principles and practical aspects of the use of complex electroanatomic mapping tools (e.g. NavX/ESI, Carto) to define the mechanism and precise site of origin of clinical cardiac arrhythmias.	
Mastery of catheter ablation techniques for the treatment of arrhythmias	

Catheter Ablation for AF/AT & Non-Isthmus Dependent Atrial Flutter

Curriculum competency	Examples of evidence provided and which section of your application this is located in
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Ability to select appropriate patients for catheter ablation treatment for atrial fibrillation and complex atrial arrhythmias such as atypical atrial flutter	
A comprehensive understanding of the anatomy and electrophysiology of the atria	
Ability to use all available imaging and mapping systems to undertake safe and effective catheter ablation for these arrhythmias	
Safe, effective management of appropriate patients with AF, AT, atypical Afl with suitable acknowledgement of this as an emerging and developing technique requiring regular audit and objective review	

Catheter Ablation for Ventricular Tachycardia

Curriculum competency	Examples of evidence provided and which section of your application this is located in
Understanding of the role of VT ablation in the overall management of patients with VT	
Ability to participate in ablation of normal heart VT	
Ability to recognize and deal with VT storms	
Ability to participate in ablation of scar-related VT	

Trans-Septal Puncture and Catheterisation

Curriculum competency	Examples of evidence provided and which section of your application this is located in
Ability to undertake transseptal catheterisation (TSP) safely for access to the left atrium/ventricle during interventional electrophysiological studies and interventions	
To manage the risks of TSP throughout any period of access to the left atrium/ventricle	

Advanced Assessment of the Risk of Life-Threatening Arrhythmias or Sudden Cardiac Death (SCD), both Inherited and Acquired

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Curriculum competency	Examples of evidence provided and which section of your application this is located in
Ability to successfully identify patients at high risk of life threatening arrhythmias and SCD using evidence based protocols and awareness of risk in some hereditary cardiac conditions	
Ability to identify adults with poor LV function after myocardial infarction who are candidates for an ICD in keeping with the results of large randomized controlled trials	
Ability to identify young adults at risk of SCD by assessing symptomatic patients for the presence of a structural cardiac abnormality e.g. HOCM, or a primary electrical disease that confers high-risk e.g. Long QT syndrome or Brugada syndrome	
Understanding of the use and applicability of non-invasive, invasive and genetic testing effectively to screen family members of those who have suffered life-threatening arrhythmias or SCD for evidence of risk that might lead to preventative treatments	

Management of Cardiac Arrhythmias in Patients with Adult Congenital Heart Diseases (ACHD)

Curriculum competency	Examples of evidence provided and which section of your application this is located in
Appreciation of the role of arrhythmogenesis in the morbidity and mortality of the various conditions in patients with palliated or “corrected” congenital heart disease	
Ability to interpret cardiac arrhythmias and undertake risk stratification of identified arrhythmias in this patient population	
Ability to undertake sudden cardiac death risk stratification	
Ability to undertake complex interventions in this patient group, including device implantation and ablation of	

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arrhythmia mechanisms	
Ability to undertake management strategies which will determine long term outcome in respect of physiological monitoring and prevention of sudden cardiac death	
Ability to undertake long term follow up of patients with arrhythmias and ACHD	

Appendix E – Heart Failure

Curriculum competency	Examples of evidence provided and which section of your application this is located in
Has received training in a centre with established multidisciplinary heart failure services/networks	
Exposure to cardiac transplantation (usually spending at least one month in a transplant centre)	
Ability to function as a specialist in the diagnosis of heart failure with expert knowledge of heart failure; its causes, natural history and treatment.	
Ability to undertake specialist investigation of the underlying cause/causes of heart failure	
Ability to provide specialist treatment of the underlying aetiologies of heart failure	
Ability to deliver specialist medical treatment of heart failure	
Ability to advise on appropriate device treatment of heart failure	
Ability to select patients for advanced heart failure therapies (cardiac transplantation and left ventricular assist devices)	
Ability to function as part of and manage a multi-professional team	
Aptitude to function as Clinical Lead for Heart Failure in a Trust	

Appendix F – Interventional Cardiology

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Clinical care of PCI patients

Curriculum competency	Examples of evidence provided and which section of your application this is located in
To understand the indications for objective tests for ischaemia	
To be able to explain results of tests, particularly angiogram, with patient and relatives	
To understand the principles of risk assessment and clinical features of high risk	
To understand methods for minimising risk	
To be able to anticipate, diagnose and treat complications appropriately	
To be able to communicate risk of procedure with patient	
To provide continuity of care to patients undergoing PCI	
To maintain a database of clinical activity including outcome audit for PCI procedures	

Basic PCI

Curriculum competency	Examples of evidence provided and which section of your application this is located in
To acquire skilful and robust interpretation of angiography, with particular attention to the need for tailored views of stenosis	
To be able to employ techniques designed to assess angiographically equivocal lesions including pressure wire and IVUS	
To have more than 1 arterial access option (i.e. femoral and radial)	
To apply appropriately adjuvant therapy including clopidogrel, glycoprotein IIb/IIIa inhibitors and bivalirudin	
To be proficient in the application of an IABP	

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Advanced PCI

Curriculum competency	Examples of evidence provided and which section of your application this is located in
To be able to competently perform PCI on more complex lesions including bifurcations, vein grafts, chronic total occlusions, left main, ostial disease	
To be able to perform PCI in high risk patients including acute MI, cardiogenic shock, rescue, advanced co-morbidities and inoperable patients	
To be able to develop strategies for PCI in patients with multivessel disease	
To be able to interact with other specialists in patients who need revascularisation prior to non-cardiac surgery such as patients with cancer, orthopaedic conditions and aortic aneurysms	
To maintain keen interest in the evidence base and new technologies and to exhibit a pioneering interest in new developments	
To engage cardiac surgical colleagues in discussion about potential "cover" for high risk complex cases	
To recognise the importance of concentrating specialist skills and to work in partnership with colleagues where necessary	

Operational Interventions

Curriculum competency	Examples of evidence provided and which section of your application this is located in
To acquire competence in the performance of mitral balloon valvuloplasty	
To acquire competence in the performance of rotablation	
To acquire competence in the performance of complex PCI from the radial approach	
To acquire competence in performance of carotid artery or renal stenting	

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To acquire competence in the closure of ASD or PFO	
To acquire competence in the technique for alcohol septal ablation in HOCM	

Appendix G – Cardiac Imaging

Advanced Echocardiography 1

Curriculum competency	Examples of evidence provided and which section of your application this is located in
Advanced skills and competence in transthoracic echocardiography.	
Ability to perform and report complex transthoracic studies	
Ability to perform and interpret transoesophageal echocardiograms (TOE)	

Advanced Echocardiography 2

Curriculum competency	Examples of evidence provided and which section of your application this is located in
Ability to run a transthoracic echocardiography service including the quality assurance and training of other practitioners.	
Advanced skills and competence in transoesophageal echocardiography.	
Ability to perform and report complex transoesophageal studies.	
Ability to run a TOE service including the quality assurance and training of other practitioners	
Advanced skills and competence in stress echocardiography.	
Ability to perform and report stress echocardiograms.	
Ability to run a stress echocardiogram service including the quality assurance and training of other practitioners.	

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Nuclear Cardiology

Curriculum competency	Examples of evidence provided and which section of your application this is located in
Ability to stress patients safely and effectively using dynamic exercise and pharmacological stress	
Ability to work with nuclear cardiology radiopharmaceuticals safely	
Ability to acquire and process nuclear cardiology studies	
Ability to report nuclear Cardiology studies	
Ability to advise cardiologists and other specialists on the appropriate use of nuclear Cardiology techniques in different clinical situations	

Cardiac Magnetic Resonance

Curriculum competency	Examples of evidence provided and which section of your application this is located in
To be able to run a cardiac magnetic resonance unit including the quality assurance and training of other practitioners	

Cardiac Computed Tomography

Curriculum competency	Examples of evidence provided and which section of your application this is located in
To be able to independently perform and interpret cardiac CT	
To be able to run a cardiac CT unit including the quality assurance and training of other practitioners.	

Appendix H – Inherited Cardiovascular Conditions

Curriculum competency	Examples of evidence provided and which section of your application this is located in
Ability to diagnose common ICCs	

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Ability to construct and interpret a family pedigree	
Ability to conduct family screening and genetic evaluation	
Ability to interpret cardiovascular imaging	
Ability to interpret pharmacological provocation EP testing	
Understanding of sudden death prevention in ICC patients.	
Ability to interact with paediatric cardiologists and develop interfaces for family screening and transition	
Diagnosis and management of inflammatory heart disease	
Knowledge of the indications for invasive diagnostics and therapies	
Ability to function as part of a multidisciplinary team.	
Delivery of teaching on ICCs	