

JRCPTB

Joint Royal Colleges of Physicians Training Board

Curriculum for Medical Oncology Training Implementation August 2021



ROYAL COLLEGE
of PHYSICIANS
of EDINBURGH



ROYAL COLLEGE OF
PHYSICIANS AND
SURGEONS OF GLASGOW



Royal College
of Physicians

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1. Introduction

The purpose of the medical oncology curriculum is to produce doctors with the generic professional and specialty specific capabilities needed to manage cancer patients. These capabilities should cover a comprehensive range of malignancies and manage the patient throughout the disease pathway, coordinating with a wide variety of professionals within multidisciplinary teams (e.g. clinical oncologists, surgeons, physicians, clinical nurse specialists, radiologists, pharmacists, pathologists, palliative care teams) to ensure the successful delivery of complex multi-modality management plans that address the holistic needs of the patient and are personalised to their co-morbidities and preferences. Medical oncology is a broad-based clinical specialty responsible for ensuring state of the art systemic therapies for cancer are delivered within a framework of care for the cancer patient as an individual. Medical oncologists are physicians who specialise in advising on all aspects of cancer treatment including surgery and radiotherapy, managing the cancer patient throughout the disease pathway, delivering and developing systemic anti-cancer therapies (SACT) and managing the acute complications of cancer and its treatment from diagnosis through to cure/survivorship and/or end of life care. As an academic specialty in a rapidly changing field, medical oncologists are trained to participate in clinical research, leading on the development and delivery of cancer trial protocols. Medical oncologists work closely with clinical oncology colleagues who have the unique expertise to plan and deliver radiation-based cancer treatments.

The curriculum provides training in the management of all types of cancer and the acute disease or treatment-related complications with the aim of producing pluripotent medical oncologists who at completion of training will have the transferable skills to manage any tumour type and the flexibility to work across differing locations and service models to adapt to the changing needs of the service.

2. Purpose

2.1 Purpose of the curriculum

The NHS Five Year Forward update plan published in 2017¹ identified improving cancer services and outcomes for patients as one of the four major priorities for the health service going forward. This national priority for improving cancer outcomes within the NHS is re-affirmed in the recently published NHS Long Term Plan². In line with this, several key reviews including the National Cancer Strategies of each of the 4 nations^{3,4,5,6} the Health Education England (HEE) Cancer Workforce Strategy Phase 1⁷ and the Cancer

¹ Next Steps on the NHS Five Year Forward View, March 2017

² NHS Long Term Plan, January 2019

³ Achieving World-Class Cancer Outcomes: a Strategy for England 2015-2020

⁴ Beating Cancer: Ambition and Action. March 2016

⁵ Cancer Delivery Plan for Wales 2016-2020. November 2016

⁶ National Cancer Strategy 2017-2026

⁷ HEE Cancer Workforce Plan Phase 1: Delivering the Cancer Strategy to 2021

Research UK workforce review⁸ have all clearly identified the need for more specialist oncologists to meet the anticipated increase in demand for non-surgical oncology services. Drivers for this increasing demand and key factors influencing its delivery from these reports are outlined below. These factors underpin the high-level outcomes of the medical oncology curriculum.

- Cancer is predominantly a disease of the elderly and as population life expectancy increases, so will the incidence and prevalence of malignant disease. One in two people born after 1960 will develop a malignancy during their lifetime. Elderly patients often have other comorbidities and social complexities which will greatly increase the support required to safely deliver all treatment modalities.
- With the commitment to facilitate the earlier diagnosis of cancer, there will be an increase in the number of patients presenting with localised disease, needing more combined modality therapy to achieve cure.
- More than half of those diagnosed with cancer will now survive their cancer for at least 10 years, placing an increased emphasis on survivorship, care in the community and the long-term management of the effects of cancer and its treatments.
- The development of acute oncology services (AOS) for the emergency management of patients presenting with problems directly related to treatment toxicities, disease progression or new diagnoses of malignant disease is ongoing. This development will ensure the most effective route to diagnosis and suitable treatment, including end of life care. This will lead to better support of, and a reduction in pressure on, more general acute medical services.
- The evidence-base and development pipeline for systemic anti-cancer therapies (SACT) will continue to evolve at a rapid pace. A significant proportion of agents in the current National Institute for Health and Care Excellence (NICE) are novel 'first in class' agents. The increase in SACT options means that more patients can be treated, and more lines of treatment offered to individual patients.
- Advances in radiotherapy techniques and artificial intelligence (AI) have also progressed rapidly over the past few years and will continue to do so requiring service development including quality assurance.
- Recent technological advances in cancer genomics and molecular diagnostics will drive personalised medicine with treatments being used increasingly more selectively for the specific patients most likely to benefit. The implementation of personalised medicine will place further demand on the oncologist workforce both in its requirement for a more in-depth understanding of the scientific basis of cancer and its treatments, the ability to communicate this to patients, carers and relatives, and in ensuring that all patients have access to the appropriate therapeutic options.
- Driving research across all disciplines will remain a key component of the medical oncology work-force both to improve patient outcomes (in terms of survival and quality of life) and to maximise resource utilisation. This requires specialist training in research methodology as well as the time and resources to implement clinical trials.

⁸ Full Team Ahead: Understanding the UK non-surgical cancer treatments workforce. Dec 2017

Scope of Practice

Medical oncologists and clinical oncologists work very closely together within MDTs to provide holistic care of the cancer patient and deliver elements of the non-surgical cancer treatments. Medical oncologists specialise particularly in the development, implementation and delivery of systemic anti-cancer therapies and routinely lead on delivering clinical research, with many extending this to active laboratory-based research, and involvement in the development as well as the delivery of clinical trials; clinical oncologists have a specific and unique remit for the development and delivery of radiotherapy treatments. The new curricular structure with the common oncology stem ST3 year means that trainees successfully completing ST3 in either Clinical and Medical oncology will have gained the necessary competencies to progress to ST4 in either specialty, subject to appointment to that specialty in open competition via national recruitment processes.

Systemic anti-cancer therapy (SACT) is a wide and expanding field of practice, which has moved far beyond traditional cytotoxic chemotherapy agents. Current modalities include biological agents, molecular targeted agents, immunotherapies, immune modulators and most recently individually modified immune cell therapies. The development and safe introduction of these therapies to treat solid tumours is a complex and highly specialised field of practice in which medical oncologists lead. Training and supervision of the broader healthcare community who deliver SACT once in routine use is also a key component of practice as a medical oncology consultant.

Medical oncologists contribute routinely to clinical research delivering all phases of clinical trials, acting at Principal Investigator level for local delivery of trials and contributing to the development of new trials to improve cancer patient treatments, outcomes and experiences. The curriculum will ensure that trainees achieving CCT have the requisite skills to actively participate in this crucial element of cancer care from the outset of their consultant practice, and throughout their career.

To deliver against this background, medical oncologists will be trained to share the generic professional capabilities expected of all doctors and have the specialist skills to deliver what cancer patients need throughout their disease pathway across disparate tumour types. They will be capable of leading and contributing to multidisciplinary team meetings across the breadth of cancer types, and across professional and care sector boundaries. They will take responsibility for developing comprehensive and complex management plans and have the communication skills necessary to discuss and explain these to patients in a way which places the patient at the centre of the decision-making process. They will be responsible for safely and efficiently delivering/overseeing the delivery of the systemic anti-cancer therapy elements of this plan and coordinating to ensure that the whole of the plan is efficiently carried out and managed. They will be capable of managing and developing Acute Oncology Services to manage the acute complications of cancer and its treatments and facilitate the rapid investigation and diagnosis of those presenting acutely with symptoms from a previously undiagnosed cancer. They will actively contribute to clinical research.

This purpose statement has been endorsed by the GMC’s Curriculum Oversight Group and confirmed as meeting the needs of the health services of the countries of the UK.

2.2 High level learning outcomes – capabilities in practice (CiPs)

The Medical Oncology capabilities in practice (CiPs) describe the professional tasks or work within the scope of the specialty. Each CiP has a set of descriptors associated with that activity or task. Descriptors are intended to help trainees and trainers recognise the minimum level of knowledge, skills and behaviours which should be demonstrated for an entrustment decision to be made. By the completion of training and award of a CCT, the doctors must demonstrate that they are capable of unsupervised practice in all CiPs. The CiPs have been mapped to the GPC domains and subsections to reflect the professional generic capabilities required to undertake the clinical tasks. Satisfactory sign off requires demonstration that, for each of the CiPs, the performance of the doctor in training meets or exceeds the minimum expected level for completion of training, as defined in the curriculum.

The Medical Oncology CiPs comprise six generic CiPs (shared across all physician specialties), seven oncology CiPs which are common to both Clinical and Medical Oncology and five CiPs specific to Medical Oncology.

Learning outcomes – capabilities in practice (CiPs)
Generic CiPs
<ol style="list-style-type: none"> 1. Able to successfully function 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 focused on patient safety and delivers effective quality improvement in patient care 5. Carrying out research and managing data appropriately 6. Acting as a clinical teacher and clinical supervisor
Oncology CiPs - Shared with Clinical Oncology
<ol style="list-style-type: none"> 7. Applying knowledge and understanding of the scientific principles that underpin malignancy for the provision of high quality and safe patient-centred care 8. Delivering the acute oncology take, manage oncological emergencies, provide advice to the other healthcare professionals as part of an Acute Oncology Service (AOS) and manage the AOS team and the palliative care/ end-of-life needs of those with advanced cancer 9. Providing continuity of care to oncology in-patients to include the effective management of disease and treatment-related complications, medical conditions, the acutely deteriorating patient

10. Working effectively within, and contribute expert opinion to the tumour-site specific multidisciplinary team meeting (MDT) to inform evidence-based management plans individualised to the needs of each patient, leading discussions where appropriate
11. Assessing patients at all stages of the cancer pathway, from diagnosis to end of life care, considering the holistic needs of individuals and the additional needs of vulnerable groups to formulate patient-centred management plans
12. Safely and effectively delivering, and managing patients receiving, standard systemic anticancer therapy (SACT) in the curative, neo-adjuvant, adjuvant and palliative settings
13. Acting as an advocate for health promotion and high-quality cancer survivorship, advise on cancer prevention, management of long-term treatment-related sequelae and patient self-management strategies

Medical Oncology CiPs

14. Safely and effectively deliver, and manage patients receiving, intensive complex systemic anti-cancer therapies
15. Developing guidelines and protocols to safely implement new and emerging diagnostic and systemic anticancer therapeutic approaches
16. Managing the training and supervision of non-medical prescribers of systemic anticancer therapies
17. Integrating biomarkers and genomic information to refine diagnosis and develop personalised treatment plans for cancer patients
18. Implement clinical trials of systemic anticancer treatments at investigator level for all phases, with the skills to lead late phase (Phase III) trials as Principal Investigator.

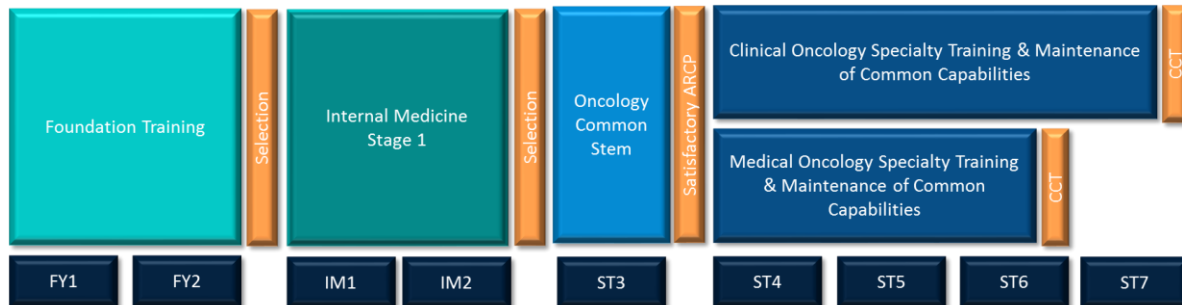
2.3 Training pathway

Trainees will be eligible to apply for higher specialty training in medical oncology having satisfactorily completed their foundation training programme and an indicative 2 years of Internal Medicine (IM) Stage 1 training or equivalent. The details of this early part of the training can be found in the IM Stage 1 curriculum and are not covered by this document. Trainees will need to have demonstrated the required level of performance in the high-level outcomes specified within that curriculum for moving beyond the critical progression point at the end of IM2. Trainees will also need to have acquired the full MRCP (UK) diploma or equivalent prior to programme entry. Trainees may have gained additional experience in other programmes before commencing higher training in either medical or clinical oncology.

Clinical and medical oncologists work closely together as part of the wider cancer team to deliver the non-surgical components of cancer treatment plans. The curricula for medical and clinical oncology have been aligned to reflect this relationship and include aspects of common training that constitute the Oncology Common Stem (OCS). This will improve transferability and flexibility for trainees wishing to move between the two specialties. Any trainee wishing to transfer specialty between clinical and medical oncology would be required to do so in open competition, through the existing national recruitment process. This applies to trainees at any stage of training, including those at the end of OCS.

However, this training pathway promotes the recognition of capabilities, rather than simply time served, giving oncology trainees the confidence that were they to switch specialty there would be the appropriate acknowledgment of the relevance of their training to date.

Figure 1: Training pathway for clinical oncology and medical oncology



Medical oncology higher specialty training will be in total (including OCS) an indicative four-year clinical training programme leading to single accreditation in the specialty. There are no critical progression points during higher specialty medical oncology training, though trainees will be subject to an annual review of progress via the ARCP process and will have to complete all curriculum requirements including passing the medical oncology Specialty Certificate Examination (SCE) prior to obtaining CCT.

Medical oncologists will have the scientific understanding which underpins radiation-based cancer treatments. During the OCS training year, they will gain knowledge of radiotherapy planning and delivery. This will enable them to coordinate the care of cancer patients with the wider multidisciplinary team, managing patients throughout a multi-modality treatment pathway. However medical oncology trainees will not be expected to independently plan or deliver radiation-based cancer treatments.

2.4 Duration of training

OCS has an indicative duration of one year, during which the primary focus will be on the development of the common oncology capabilities relating to the key areas of overlap between the two specialties, as well as continuing to develop the generic capabilities expected of all doctors. Following successful completion of OCS, medical oncology trainees will complete a subsequent specialty specific programme with an indicative duration of three years, where the medical oncology-specific capabilities are acquired alongside consolidation and further development of the common oncology and generic capabilities. The training pathway diagram in section 2.3 (Figure 1) illustrates this structure based on a trainee meeting the minimum entry requirements detailed above.

There will be options for those trainees who demonstrate exceptionally rapid development and acquisition of capabilities to complete training more rapidly than the current indicative time although it is recognised that clinical experience is a fundamental aspect of

development as a good physician (guidance on completing training early will be available on the [JRCPTB website](#)). There may also be a small number of trainees who develop more slowly and will require an extension of training in line the Reference Guide for Postgraduate Specialty Training in the UK (The Gold Guide).

2.5 Flexibility and accreditation of transferable capabilities

The curriculum incorporates and emphasises the importance of the generic professional capabilities (GPCs). GPCs will promote flexibility in postgraduate training as these common capabilities can be transferred from specialty to specialty. The curriculum supports flexibility for trainees to move between these specialties without needing to repeat aspects of training. The curriculum supports the accreditation of transferrable competencies (using the Academy framework).

With the introduction of the Oncology Common Stem and alignment of common areas throughout the clinical oncology and medical oncology curricula, transferability between clinical oncology and medical oncology at any stage of training will be facilitated. At the end of the OCS year, any trainee who wishes to transfer from one speciality to the other will enter at ST4 level with full recognition of the competencies already achieved during that year. The classification of the CiPs as either shared oncology or specialty specific will facilitate transfer between specialities at any stage of training. To transfer from one specialty to the other, the trainee is required to make a new application through the national recruitment process and be appointed via open competition.

Ultimately, this training pathway promotes the recognition of capabilities, rather than simply time served, giving oncology trainees the confidence that, were they to switch specialty, there would be the appropriate acknowledgment of the relevance of their training thus far.

There is overlap between parts of the haematology, palliative medicine and other medical specialty curricula. The generic CiPs are consistent amongst all the JRCPTB specialities. The specialty specific CiPs were developed incorporating relevant elements of the Internal Medicine Stage 1 curriculum. This will facilitate transferability between medical oncology and other medical specialities.

2.6 Less than full time training

Trainees are entitled to opt for less than full time training within programmes. Less than full time trainees should undertake a pro rata share of the out-of-hours duties (including on-call and other out-of-hours commitments) required of their full-time colleagues in the same programme and at the equivalent stage.

Less than full time trainees should assume that their clinical training will be of an indicative duration pro-rata with that for a full-time trainee, but this should be reviewed in accordance with the Gold Guide.

2.7 Generic Professional Capabilities and Good Medical Practice

The GMC has developed the Generic professional capabilities (GPC) framework⁹ with the Academy of Medical Royal Colleges (AoMRC) to describe the fundamental, career-long, generic capabilities required of every doctor. The framework describes the requirement to develop and maintain key professional values and behaviours, knowledge, and skills, using a common language. GPCs also represent a system-wide, regulatory response to the most common contemporary concerns about patient safety and fitness to practise within the medical profession. The framework will be relevant at all stages of medical education, training and practice.

The nine domains of the GMC's Generic Professional Capabilities



Good medical practice (GMP)¹⁰ is embedded at the heart of the GPC framework. In describing the principles, duties and responsibilities of doctors the GPC framework articulates GMP as a series of achievable educational outcomes to enable curriculum design and assessment.

⁹ [Generic professional capabilities framework](#)

¹⁰ [Good Medical Practice](#)

The GPC framework describes nine domains with associated descriptor outlining the 'minimum common regulatory requirement' of performance and professional behaviour for those completing a CCT or its equivalent. These attributes are common, minimum and generic standards expected of all medical practitioners achieving a CCT or its equivalent.

The nine domains and subsections of the GPC framework are directly identifiable in the curriculum. They are mapped to each of the generic and specialty CiPs, which are in turn mapped to the assessment blueprints. This is to emphasise those core professional capabilities that are essential to safe clinical practice and that they must be demonstrated at every stage of training as part of the holistic development of responsible professionals.

This approach will allow early detection of issues most likely to be associated with fitness to practise and to minimise the possibility that any deficit is identified during the final phases of training.

3. Content of Learning

The curriculum is spiral, and topics and themes will be revisited to expand understanding and expertise. The level of entrustment for capabilities in practice (CiPs) will increase as an individual progresses from needing direct supervision to able to be entrusted to act unsupervised.

3.1 Capabilities in practice

CiPs describe the professional tasks or work within the scope of the specialty. CiPs are based on the concept of entrustable professional activities¹¹ which use the professional judgement of appropriately trained, expert assessors as a defensible way of forming global judgements of professional performance.

Each CiP has a set of descriptors associated with that activity or task. Descriptors are intended to help trainees and trainers recognise the knowledge, skills and attitudes which should be demonstrated. Doctors in training may use these capabilities to provide evidence of how their performance meets or exceeds the minimum expected level of performance for their year of training. The descriptors are not a comprehensive list and there are many more examples that would provide equally valid evidence of performance.

Many of the CiP descriptors refer to patient centred care and shared decision making. This is to emphasise the importance of patients being at the centre of decisions about their own treatment and care, by exploring care or treatment options and their risks and benefits and discussing choices available.

Additionally, the CiPs repeatedly refer to the need to demonstrate professional behaviour with regard to patients, carers, colleagues and others. Good doctors work in partnership with patients and respect their rights to privacy and dignity. They treat each patient as an

¹¹ [Nuts and bolts of entrustable professional activities](#)

individual. They do their best to make sure all patients receive good care and treatment that will support them to live as well as possible, whatever their illness or disability. Appropriate professional behaviour should reflect the principles of GMP and the GPC framework.

In order to complete training and be recommended to the GMC for the award of CCT and entry to the specialist register, the doctor must demonstrate that they are capable of unsupervised practice in all generic and specialty CiPs. Once a trainee has achieved level 4 sign off for a CiP it will not be necessary to repeat assessment of that CiP if capability is maintained (in line with standard professional conduct).

This section of the curriculum details the six generic CiPs, seven shared Oncology CiPs and five Medical Oncology specialty specific CiPs. The expected levels of performance, mapping to relevant GPCs and the evidence that may be used to make an entrustment decision are given for each CiP. The list of evidence for each CiP is not prescriptive and other types of evidence may be equally valid for that CiP.

3.2 Generic capabilities in practice

The six generic CiPs cover the universal requirements of all specialties as described in GMP and the GPC framework. Assessment of the generic CiPs will be underpinned by the descriptors for the nine GPC domains and evidenced against the performance and behaviour expected at that stage of training. Satisfactory sign off will indicate that there are no concerns. It will not be necessary to assign a level of supervision for these non-clinical CiPs.

In order to ensure consistency and transferability, the generic CiPs have been grouped under the GMP-aligned categories used in the Foundation Programme curriculum plus an additional category for wider professional practice:

- professional behaviour and trust
- communication, team-working and leadership
- safety and quality
- wider professional practice.

For each generic CiP there is a set of descriptors of the observable skills and behaviours which would demonstrate that a trainee has met the minimum level expected. The descriptors are not a comprehensive list and there may be more examples that would provide equally valid evidence of performance.

Generic capabilities in practice (CiPs)	
Category 1: Professional behaviour and trust	
1. Able to function successfully within NHS organisational and management systems	
Descriptors	• Aware of and adheres to the GMC professional requirements

	<ul style="list-style-type: none"> • Aware of public health issues including population health, social detriments of health and global health perspectives • Demonstrates effective clinical leadership • Demonstrates promotion of an open and transparent culture • Keeps practice up to date through learning and teaching • Demonstrates engagement in career planning • Demonstrates capabilities in dealing with complexity and uncertainty • Aware of the role of and processes for commissioning • Aware of the need to use resources wisely
GPCs	Domain 1: Professional values and behaviours Domain 3: Professional knowledge <ul style="list-style-type: none"> • professional requirements • national legislative requirements • the health service and healthcare systems in the four countries Domain 9: Capabilities in research and scholarship
Evidence to inform decision	MCR MSF Active role in governance structures Management course End of placement reports
2. Able to deal with ethical and legal issues related to clinical practice	
Descriptors	<ul style="list-style-type: none"> • 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 • Demonstrates ability to lead the clinical team in ensuring that medical legal factors are considered openly and consistently
GPCs	Domain 3: Professional knowledge <ul style="list-style-type: none"> • professional requirements • national legislative requirements • the health service and healthcare systems in the four countries Domain 4: Capabilities in health promotion and illness prevention Domain 7: Capabilities in safeguarding vulnerable groups Domain 8: Capabilities in education and training Domain 9: Capabilities in research and scholarship
Evidence to inform decision	MCR MSF CbD DOPS Mini-CEX ALS certificate End of life care and capacity assessment End of placement reports
Category 2: Communication, teamworking and leadership	

3. Communicates effectively and is able to share decision making, while maintaining appropriate situational awareness, professional behaviour and professional judgement	
Descriptors	<ul style="list-style-type: none"> • 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 (eg cognitive impairment, speech and hearing problems, capacity issues) • Demonstrates effective consultation skills including effective verbal and nonverbal interpersonal skills • Shares decision making by informing the patient, prioritising the patient's 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
GPCs	<p>Domain 2: Professional skills</p> <ul style="list-style-type: none"> • practical skills • communication and interpersonal skills • dealing with complexity and uncertainty • clinical skills (<i>history taking, diagnosis and medical management; consent; humane interventions; prescribing medicines safely; using medical devices safely; infection control and communicable disease</i>) <p>Domain 5: Capabilities in leadership and teamworking</p>
Evidence to inform decision	<p>MCR MSF PS End of placement reports ES report</p>
Category 3: Safety and quality	
4. Is focused on patient safety and delivers effective quality improvement in patient care	
Descriptors	<ul style="list-style-type: none"> • 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

	<ul style="list-style-type: none"> • Avoids organising unnecessary investigations or prescribing poorly evidenced treatments
GPCs	<p>Domain 1: Professional values and behaviours</p> <p>Domain 2: Professional skills</p> <ul style="list-style-type: none"> • practical skills • communication and interpersonal skills • dealing with complexity and uncertainty • clinical skills (<i>history taking, diagnosis and medical management; consent; humane interventions; prescribing medicines safely; using medical devices safely; infection control and communicable disease</i>) <p>Domain 3: Professional knowledge</p> <ul style="list-style-type: none"> • professional requirements • national legislative requirements • the health service and healthcare systems in the four countries <p>Domain 4: Capabilities in health promotion and illness prevention</p> <p>Domain 5: Capabilities in leadership and teamworking</p> <p>Domain 6: Capabilities in patient safety and quality improvement</p> <ul style="list-style-type: none"> • patient safety • quality improvement
Evidence to inform decision	<p>MCR</p> <p>MSF</p> <p>QIPAT</p> <p>End of placement reports</p>
Category 4: Wider professional practice	
5. Carrying out research and managing data appropriately	
Descriptors	<ul style="list-style-type: none"> • 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
GPCs	<p>Domain 3: Professional knowledge</p> <ul style="list-style-type: none"> • professional requirements • national legislative requirements • the health service and healthcare systems in the four countries

	Domain 7: Capabilities in safeguarding vulnerable groups Domain 9: Capabilities in research and scholarship
Evidence to inform decision	MCR MSF MRCP(UK) GCP certificate (if involved in clinical research) Evidence of literature search and critical appraisal of research Use of clinical guidelines Quality improvement and audit Evidence of research activity End of placement reports
6. Acting as a clinical teacher and clinical supervisor	
Descriptors	<ul style="list-style-type: none"> • Delivers effective teaching and training to medical students, junior doctors and other health care 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 a clinical supervisor to doctors in earlier stages of training
GPCs	Domain 1: Professional values and behaviours Domain 8: Capabilities in education and training
Evidence to inform decision	MCR MSF TO Relevant training course End of placement reports

3.3 Specialty capabilities in practice

The specialty CiPs describe the clinical tasks or activities which are essential to the practice of Medical Oncology. The CiPs have been mapped to the nine GPC domains to reflect the professional generic capabilities required to undertake the clinical tasks.

Satisfactory sign off will require educational supervisors to make entrustment decisions on the level of supervision required for each CiP and if this is satisfactory for the stage of training, the trainee can progress. More detail is provided in the programme of assessment section of the curriculum.

Oncology Capabilities in Practice (CiPs)	
7. Applying knowledge and understanding of the scientific principles that underpin malignancy for the provision of high-quality and safe patient-centred cancer care	
Descriptors	<ul style="list-style-type: none"> ▪ Demonstrates knowledge of cancer biology at a molecular and cellular level and understands how this translates into targets for systemic anti-cancer treatments

	<ul style="list-style-type: none"> ▪ Demonstrates knowledge of radiation biology and understands how this translates into acute and late radiotherapy reactions to underpin their safe and effective management ▪ Demonstrates knowledge and understanding of the clinical pharmacology of systemic anti-cancer therapies to underpin their safe and effective use and the appropriate management of complications ▪ Demonstrates knowledge and understanding of the physics relevant to radiotherapy ▪ Demonstrates knowledge and understanding of the design and organization of clinical trials and the relevant statistical methodology to correctly interpret results and critically appraise the evidence base ▪ Demonstrates knowledge and understanding of causation and risk factors for developing cancer to be able to advise on appropriate strategies to reduce these ▪ Demonstrates knowledge and understanding of the principles underpinning cancer screening programmes to be able to counsel patients appropriately
GPCs	<u>Domain 3: Professional knowledge</u> <ul style="list-style-type: none"> ▪ professional requirements ▪ national legislative requirements <u>Domain 4: Capabilities in health promotion and illness prevention</u>
Suggested evidence to inform decision	Attendance at an appropriate oncology course FRCR part 1/SCE examinations GCP certificate CbD Mini-CEX DOST DORPS End of placement report
8. Delivering the acute oncology take, managing oncological emergencies and providing oncology advice to other healthcare professionals as part of an Acute Oncology Service and managing the AOS team	
Descriptors	<ul style="list-style-type: none"> ▪ Safely assesses and manages the immediate and ongoing care of patients presenting acutely with complications of cancer and its treatment ▪ Manages targeted investigation and rapid triage of patients presenting with a possible new diagnosis of malignancy, malignancy of undefined origin (MUO) and carcinoma of unknown primary (CUP) ▪ Liaises effectively with other specialist services as appropriate, regarding ongoing management ▪ Assesses the appropriate ceiling of care taking the cancer context and the holistic patient assessment into account and sensitively discusses this with the patient and their advocates ▪ Participates effectively in decision-making with regard to resuscitation, including decisions not to attempt cardiopulmonary resuscitation (CPR), and communicates sensitively with patients and their advocates in regard to these decisions ▪ Ensures clear and adequate documentation of an acute event, appropriate follow up plans and clear and timely communication with community based teams and the responsible specialist team

	<ul style="list-style-type: none"> Understands the local and regional Acute Oncology Service and communicates effectively between the elements of the service, community based services, specialist teams and patients Leads the Acute Oncology team when appropriate to monitor, maintain and develop a high quality service
GPCs	<p><u>Domain 1:</u> Professional values and behaviours</p> <p><u>Domain 2:</u> Professional skills</p> <ul style="list-style-type: none"> practical skills communication and interpersonal skills dealing with complexity and uncertainty clinical skills <p><u>Domain 3:</u> Professional knowledge</p> <ul style="list-style-type: none"> professional requirements national legislative requirements <p><u>Domain 5:</u> Capabilities in leadership and team working</p>
Suggested evidence to inform decision	<p>Mini-CEX</p> <p>CbD</p> <p>MSF</p> <p>MCR</p> <p>ACAT</p> <p>End of placement report</p>
9. Providing continuity of care to oncology in-patients to include the effective management of disease and treatment-related complications, the acutely deteriorating patient and the palliative care/end-of-life needs of those with advanced cancer	
Descriptors	<ul style="list-style-type: none"> Ensures continuity of patient care through safe and effective handover to hospital and community-based teams Safely and effectively manages disease and treatment-related complications in oncology patients taking into consideration acute and chronic medical co-morbidities and liaising with relevant specialty services when required Promptly identifies the acutely deteriorating patient, institutes the appropriate initial medical management and seeks appropriate advice, including from other specialties Knows the prognoses and treatment options of different cancers and considers these, together with individual patient factors and wishes, to decide on an appropriate ceiling of care, including escalation to HDU/ITU Understands current guidance regarding CPR orders, participates in shared decision-making and involves other relevant professionals in complex cases Communicates and works effectively with relevant multi-professional teams to provide appropriate holistic in-patient care and safe and timely hospital discharge Effectively manages the common physical symptoms in patients with advanced cancer, recognising the role for pain management, supportive medications, palliative radiotherapy and other approaches. Liaises with specialist palliative care teams when required Recognises when a patient is approaching the end of life, communicates effectively and compassionately with patients and carers regarding advanced care planning and individualised end of life care plans
GPCs	<p><u>Domain 2:</u> professional skills</p> <ul style="list-style-type: none"> practical skills communication and interpersonal skills dealing with complexity and uncertainty

	<ul style="list-style-type: none"> ▪ clinical skills <p><u>Domain 5: capabilities in leadership and teamworking</u></p>
Suggested evidence to inform decision	<p>MSF CbD Mini-CEX ACAT MCR End of placement report</p>
10. Working effectively within and contributing expert opinion to the tumour site-specific multidisciplinary team (MDT) meeting to inform evidence-based management plans individualised to the needs of each patient, leading discussions where appropriate	
Descriptors	<ul style="list-style-type: none"> ▪ Presents new cases to the MDT in a clear and concise manner highlighting the relevant points and questions to be answered ▪ Understands the indications for all treatment options available for different types and stages of cancer within the tumour site, applying relevant guidelines and the most up-to-date evidence base to give an informed oncology opinion ▪ Assesses the risks and benefits of treatment options for each patient considering disease stage, tumour biology and individual patient factors to formulate an appropriate personalised management plan ▪ Recognises the limitations of clinical guidelines in cases of uncertainty or complexity ▪ Communicates views and recommendations clearly, promptly and effectively to all members of the MDT ▪ Respects the expertise, viewpoints and responsibilities of all MDT members and helps foster a supportive and collaborative environment for open discussion ▪ Understands the local, regional and supra-regional MDT network and communicates effectively between the elements of the service
GPCs	<p><u>Domain 3: Professional knowledge</u></p> <ul style="list-style-type: none"> ▪ professional requirements ▪ national legislative requirements ▪ the health service and healthcare system in the four countries <p><u>Domain 5: Capabilities in leadership and team working</u></p>
Suggested evidence to inform decision	<p>CbD Mini-CEX MSF MCR Patient feedback/survey End of placement report</p>
11. Assessing patients at all stages of the cancer pathway from diagnosis to end-of-life care, considering the holistic needs of individuals and the additional needs of vulnerable groups to formulate patient-centred management plans	
Descriptors	<ul style="list-style-type: none"> ▪ Formulates a holistic patient-centred diagnostic and management plan ▪ Determines when genetic testing and/or referral for genetic counselling is appropriate ▪ Correctly interprets the results of clinical, pathological, genomic and radiological investigations to accurately diagnose and stage cancer ▪ Accurately assesses the role of all treatment modalities relevant to the individual patient and ensures multidisciplinary team involvement ▪ Selects the most appropriate treatment regimen and associated supportive measures according to best available evidence, holistic patient assessment and patient preferences

	<ul style="list-style-type: none"> ▪ Applies evidence-based practice to management decisions ▪ Discusses prognosis and treatment aims with patients, giving due consideration to their values and priorities ▪ Understands and discusses the potential effects of treatment on fertility and pregnancy and where applicable refers for consideration of fertility preservation ▪ Ensures equitable patient access to relevant clinical trials ▪ Obtains informed consent, ensuring that patients have sufficient information and time to consider risks and benefits, including the possibility of no treatment ▪ Where patients lack capacity to give informed consent, make appropriate ‘best interest’ decisions, involving all relevant parties ▪ Recognises the psychological, financial and social impact of cancer on patients and their families and signpost to sources of ongoing support ▪ Recognises when further or continuing treatment is no longer appropriate and sensitively discusses this with patients and their advocates ▪ Recognises the need for tailored support for specific and/or vulnerable groups, showing sensitivity to issues of equality and diversity ▪ Recognises the limitations of clinical guidelines in certain complex situations
GPCs	<p><u>Domain 1</u>: Professional values and behaviours</p> <p><u>Domain 2</u>: Professional skills</p> <ul style="list-style-type: none"> ▪ practical skills ▪ communication and interpersonal skills ▪ dealing with complexity and uncertainty ▪ clinical skills <p><u>Domain 3</u>: Professional knowledge</p> <ul style="list-style-type: none"> ▪ professional requirements ▪ national legislative requirements <p><u>Domain 5</u>: Capabilities in leadership and team working</p> <p><u>Domain 7</u>: Capabilities in safeguarding vulnerable groups</p> <p><u>Domain 9</u>: Capabilities in research and scholarship</p>
Suggested evidence to inform decision	<p>CbD</p> <p>Mini-CEX</p> <p>DOST</p> <p>ACAT</p> <p>MSF</p> <p>MCR</p> <p>Patient feedback/survey</p> <p>FRCR/SCE examinations</p> <p>End of placement report</p>
12. Safely and effectively delivering, and managing patients receiving, standard systemic anticancer therapies (SACT) in the curative, neo-adjuvant, adjuvant and palliative settings	
Descriptors	<ul style="list-style-type: none"> ▪ Selects the most appropriate SACT regimen and associated supportive measures for the clinical situation according to available evidence, MDT discussion and holistic patient assessment ▪ Modifies approach to address the specific needs of individual patients, including vulnerable groups ▪ Clearly communicates the benefits and risks of available treatment options, including those available within clinical trials, to enable informed consent

	<ul style="list-style-type: none"> ▪ Applies the knowledge of mechanisms of action and treatment toxicities to pre-empt, monitor and manage these in patients receiving SACT ▪ Co-ordinates the appropriate investigations, procedures and logistic arrangements required for SACT delivery ▪ Generates a SACT prescription that is safe and accurate ▪ Evaluates toxicity and response during treatment and adapts SACT/supportive measures accordingly, balancing treatment goals with patient safety and priorities ▪ Assesses and reports SACT toxicity according to regulatory and, where relevant, research governance processes ▪ Collaborates effectively with members of the multidisciplinary team when patients are receiving SACT as part of a multi-modality treatment pathway ▪ Proactively liaises with the relevant teams when SACT is completed or discontinued to enable co-ordinated ongoing management
GPCs	<p><u>Domain 1</u>: Professional values and behaviours</p> <p><u>Domain 2</u>: Professional skills</p> <ul style="list-style-type: none"> ▪ practical skills ▪ communication and interpersonal skills ▪ dealing with complexity and uncertainty ▪ clinical skills <p><u>Domain 3</u>: Professional knowledge</p> <ul style="list-style-type: none"> ▪ professional requirements ▪ national legislative requirements <p><u>Domain 5</u>: Capabilities in leadership and team working</p> <p><u>Domain 6</u>: Capabilities in patient safety and quality improvement</p> <p><u>Domain 9</u>: Capabilities in research and scholarship</p>
Suggested evidence to inform decision	<p>Mini-CEX</p> <p>CbD</p> <p>DOST</p> <p>ACAT</p> <p>MSF</p> <p>MCR</p> <p>End of placement report</p> <p>Local/national SACT competency assessment</p> <p>FRCR/SCE examinations</p>
13. Acting as an advocate for health promotion and high-quality cancer survivorship, advising on cancer prevention, management of long-term treatment-related sequelae and patient self-management strategies	
Descriptors	<ul style="list-style-type: none"> ▪ Recognises the factors affecting cancer health inequalities and the social determinants of health, including physical, economic and cultural factors, which impact on cancer risks ▪ Can give personalised risk reduction advice to patients taking into account lifestyle, environmental and genetic factors ▪ Is able to formulate a patient-centred follow up plan for patients who have completed a course of cancer treatment ▪ Promotes survivorship following cancer treatment ▪ Pro-actively manages and educates patients about the long-term sequelae of cancer treatments, in conjunction with other health professionals where relevant ▪ Provides specialist advice to other health professionals regarding cancer risks and appropriate investigation of patients following cancer treatment

<p>GPCs</p>	<p><u>Domain 1:</u> Professional values and behaviours</p> <p><u>Domain 2:</u> Professional skills</p> <ul style="list-style-type: none"> ▪ practical skills ▪ communication and interpersonal skills ▪ dealing with complexity and uncertainty ▪ clinical skills <p><u>Domain 3:</u> Professional knowledge</p> <ul style="list-style-type: none"> ▪ national legislative requirements <p><u>Domain 4:</u> Capabilities in health promotion and illness prevention</p> <p><u>Domain 5:</u> Capabilities in leadership and team working</p> <p><u>Domain 6:</u> Capabilities in patient safety and quality improvement</p> <ul style="list-style-type: none"> ▪ patient safety <p><u>Domain 7:</u> Capabilities in safeguarding vulnerable groups</p> <p><u>Domain 8:</u> Capabilities in education and training</p>
<p>Suggested evidence to inform decision</p>	<p>Mini-CEX</p> <p>CbD</p> <p>ACAT</p> <p>MSF</p> <p>MCR</p> <p>Patient feedback/survey</p> <p>End of placement report</p>
<p>Medical Oncology Capabilities in Practice (CIPs)</p>	
<p>14. Safely and effectively deliver, and manage patients receiving, intensive complex systemic anti-cancer therapies</p>	
<p>Descriptors</p>	<ul style="list-style-type: none"> • Selects the most appropriate intensive SACT regimen and associated supportive measures for the clinical situation according to best available evidence, holistic patient assessment and patient preferences • Clearly communicates the benefits and risks of available treatment options with patients and their advocates to enable informed consent • Co-ordinates the appropriate investigations, procedures and logistic arrangements required for intensive SACT delivery • Is able to safely deliver SACT in specific/ vulnerable patient groups. • Reviews patients at initiation of, and during SACT and identifies the role of SACT/ supportive measure modification, balancing treatment goals with patient safety and disease response according to updated holistic assessment • Recognises the importance of maintaining dose intensity in the context of intensive SACT and proactively employs supportive therapy strategies in order to facilitate this • Understands and discusses the potential effects of SACT on fertility and pregnancy, supporting the patient through fertility preservation options. • Collaborates effectively with members of the multidisciplinary team when patients are receiving SACT as part of a multi-modality treatment pathway • Generates a SACT prescription that is safe, accurate and meets local and national standards • Can recognize and manage pancytopenia and its sequelae related to intensive SACT, involving relevant specialist teams when required • Is able to apply the knowledge of mechanisms of action and drug toxicities to pre-empt, monitor and manage these in patients receiving intensive SACT regimens

	<ul style="list-style-type: none"> • Is able to apply knowledge of and pre-emptively manage the additional complications of stem cell transplant or other cellular therapies as part of an intensive SACT regimen • Recognises the need for prompt escalation of care and liaison with relevant teams when clinically indicated in patients receiving intensive SACT regimens • Recognises the social, financial and psychological effects of intensive SACT/prolonged hospital admission and involves appropriate teams to optimise patient care and support. • Proactively liaises with the relevant teams when SACT is completed or discontinued to enable co-ordinated ongoing management.
GPCs	<p><u>Domain 1:</u> Professional values and behaviours</p> <p><u>Domain 2:</u> Professional skills</p> <ul style="list-style-type: none"> ▪ Practical skills ▪ Communication and interpersonal skills ▪ Clinical skills <p><u>Domain 3:</u> Professional knowledge</p> <ul style="list-style-type: none"> ▪ Professional requirements ▪ National legislative requirements <p><u>Domain 4:</u> Capabilities in health promotion and illness prevention</p> <p><u>Domain 5:</u> Capabilities in leadership and team working</p> <p><u>Domain 6:</u> Capabilities in Patient safety and Quality improvement</p> <ul style="list-style-type: none"> • patient safety <p><u>Domain 7:</u> Capabilities in safeguarding vulnerable groups</p>
Suggested evidence to inform decision	<ul style="list-style-type: none"> • CBD • Mini-CEX • DOST • ACAT • MSF • MCR • SCE • End of placement report
15. Developing guidelines and protocols to safely implement diagnostic and systemic anticancer therapeutic (SACT) approaches	
Descriptors	<ul style="list-style-type: none"> • Understands the roles of regulatory agencies in the approval of novel therapeutic and diagnostic technologies for cancer treatment • Can evaluate key clinical data and resource implications relevant to emerging SACT regimens and can use this information to design clear guidance for appropriate use of the treatment

	<ul style="list-style-type: none"> • Able to collaborate and work effectively with other allied healthcare professionals, management teams and associated committee(s) to contribute to the development or renewal of guidelines and protocols. • Is familiar with the processes involved in the introduction and review of SACT approvals within their specific healthcare organization • Ensures availability of clear and comprehensive resources for patients in relation to new SACT protocols • Evaluates implemented SACT protocols using audit/quality improvement methodology and adapts in response to emerging data
GPCs	<p><u>Domain 1:</u> Professional values and behaviours</p> <p><u>Domain 2:</u> Professional skills</p> <ul style="list-style-type: none"> ▪ Practical skills ▪ Communication and interpersonal skills ▪ Clinical skills ▪ Dealing with complexity and uncertainty <p><u>Domain 3:</u> Professional knowledge</p> <ul style="list-style-type: none"> ▪ Professional requirements ▪ National legislative requirements <p><u>Domain 5:</u> Capabilities in leadership and team working</p> <p><u>Domain 6:</u> Capabilities in Patient safety and Quality improvement</p> <ul style="list-style-type: none"> • patient safety <p>quality improvement</p>
Suggested evidence to inform decision	<ul style="list-style-type: none"> • Mini-CEX • CBD • MCR • MSF • Audit/QiP assessment tool • End of placement report
16. Managing the training and supervision of non-medical prescribers of systemic anticancer therapies	
Descriptors	<ul style="list-style-type: none"> • Supports the training and supervision of NMPs in an environment that prioritises patient safety • Understands the governance structures, training pathway and assessments for NMP prescribing at local and national levels. • Creates effective learning opportunities for NMPs in training within their scope of practice. • Assesses the performance and competencies of NMPs, giving timely and appropriate feedback • Provides mentorship and support for NMPs during training and in practice • Promotes and participates in inter-professional learning

<p>GPCs</p>	<p><u>Domain 1:</u> Professional values and behaviours</p> <p><u>Domain 2:</u> Professional skills</p> <ul style="list-style-type: none"> ▪ Practical skills ▪ Communication and interpersonal skills ▪ Clinical skills <p><u>Domain 3:</u> Professional knowledge</p> <ul style="list-style-type: none"> ▪ Professional requirements ▪ National legislative requirements ▪ The Health Service and healthcare systems in the four countries <p><u>Domain 5:</u> Capabilities in leadership and team working</p> <p><u>Domain 6:</u> Capabilities in Patient safety and Quality improvement</p> <ul style="list-style-type: none"> ▪ patient safety ▪ quality improvement <p><u>Domain 8:</u> Capabilities in education and training</p>
<p>Suggested evidence to inform decision</p>	<ul style="list-style-type: none"> • MCR • MSF • End of placement report • Reflective practice
<p>17. Integrating biomarkers and genomic information to refine diagnosis and develop personalized treatment plans for cancer patients</p>	
<p>Descriptors</p>	<ul style="list-style-type: none"> • Understands the principles of precision oncology, stratified and personalised medicine. • Understands the principles of whole genome sequencing, gene expression and regulation in the context of cancer risk including inherited cancer predisposition syndromes and screening • Applies knowledge of the multi-factorial basis of malignancy to discuss cancer risk with patients and their carers, taking into account ethical and confidentiality considerations • Understands the role of genomics and biomarkers in the cancer diagnostic pathway • Understands the role of genomics and biomarkers in personalising therapeutic options and in the prediction and monitoring of response to SACT • Understands the ethical issues associated with whole genome sequencing and management of genomic data • Understands the basis for genomic profiling and biomarker utilisation in the design and delivery of clinical trials
<p>GPCs</p>	<p><u>Domain 1:</u> Professional values and behaviours</p> <p><u>Domain 2:</u> Professional skills</p>

	<ul style="list-style-type: none"> ▪ Practical skills ▪ Communication and interpersonal skills ▪ Clinical skills <p><u>Domain 3: Professional knowledge</u></p> <ul style="list-style-type: none"> ▪ Professional requirements ▪ National legislative requirements <p><u>Domain 5: Capabilities in leadership and team working</u></p>
Suggested evidence to inform decision	<ul style="list-style-type: none"> • SCE • Mini CEX • CBD • DOST • MCR • End of placement report
18. Implement clinical trials of systemic anticancer treatments at investigator level for all phases, with the skills to lead late phase (Phase III) trials as Principal Investigator	
Descriptors	<ul style="list-style-type: none"> • Demonstrates knowledge of the ethical and legal issues related to clinical research applying Good Clinical Practice principles • Understands that patient safety is the overriding priority in the conduct of clinical trials • Understands the key processes for setting up a clinical trial at a new site • Understands the roles and responsibilities of Principal and Sub-Investigators • Able to participate in clinical research trials, including early phase trials (phase I/II), at Sub-Investigator level • Understands appropriate delegation of trial-related duties and the need for training, supervision and oversight of the research team in carrying out trial activities • Manages patients within a clinical trial from screening and eligibility assessment, through informed consent, to completion of trial related procedures • Follows regulatory and research governance requirements with respect to safety reporting within a clinical trial • Understands the particular regulatory issues regarding use of unlicensed agents within a clinical trial
GPCs	<p><u>Domain 1: Professional values and behaviours</u></p> <p><u>Domain 2: Professional skills</u></p> <ul style="list-style-type: none"> ▪ Practical skills ▪ Communication and interpersonal skills ▪ Clinical skills <p><u>Domain 3: Professional knowledge</u></p>

	<ul style="list-style-type: none"> ▪ Professional requirements ▪ National legislative requirements <p><u>Domain 4:</u> Capabilities in health promotion and illness prevention <u>Domain 5:</u> Capabilities in leadership and team working <u>Domain 6:</u> Capabilities in Patient safety and Quality improvement</p> <ul style="list-style-type: none"> • patient safety <p><u>Domain 9:</u> Capabilities in research and scholarship</p>
Suggested evidence to inform decision	<ul style="list-style-type: none"> • CBD • Mini-CEX • DOST • MCR • GCP Certificate • End of placement report

KEY

CbD	Case-based discussion	ACAT	Acute care assessment tool
GCP	Good Clinical Practice	SCE	Specialty Certificate Examination
Mini-CEX	Mini-clinical evaluation exercise	MCR	Multiple consultant report
MSF	Multi source feedback	PS	Patient survey
QIPAT	Quality improvement project assessment tool	TO	Teaching observation
DOST	Direct observation of systemic therapy	DORPS	Direct observation of radiotherapy prescribing skills

3.4 The scientific basis of cancer and its treatments

During the oncology common stem trainees should build an understanding of the scientific basis of cancer and its treatments, as this underpins all aspects of oncology practice. This should cover the following:

- normal and malignant cell and molecular biology, including genomics
- cancer causation, risk factors and screening
- radiation biology
- physics as applied to radiotherapy
- clinical pharmacology of systemic anti-cancer therapies
- clinical trials methodology and medical statistics.

3.5 Presentations and conditions

This section highlights the key conditions encountered by Medical Oncology, although the specialty is constantly evolving, and this is not an exhaustive list. Each of these should be

regarded as a clinical context in which trainees should be able to demonstrate CiPs and GPCs. In this spiral curriculum, trainees will expand and develop the knowledge, skills and attitudes around managing patients with these conditions and presentations. The patient should always be at the centre of knowledge, learning and care. This includes understanding the principles of caring for vulnerable groups of patients including the frail and elderly, patients with disability, teenage/young adults, and during pregnancy where appropriate.

Trainees must demonstrate core bedside skills, including information gathering through history and physical examination and information sharing with patients, families and colleagues.

Treatment care and strategy covers how a doctor selects drug treatments or interventions for a patient. It includes discussions and decisions as to whether care is focused mainly on curative intent or whether the main focus is on symptomatic relief. It also covers broader aspects of care, including involvement of other professionals or services.

3.5.1 Acute oncology presentations

Trainees need to be able to manage acute oncology services and to diagnose and manage acute presentations and conditions. Table 1 below outlines the patient groups covered by this service, together with examples of commonly associated acute conditions/presentations.

The range of possible presentations in these groups of patients covers the breadth of acute medicine and any attempt to comprehensively list all presentations and conditions would be extensive, but inevitably incomplete. The examples given are those which are cancer or cancer treatment-related, and either common or serious. Our approach is to provide guidance rather than exhaustive detail and this table should be interpreted with common sense.

Table 1: acute oncology patient groups and commonly associated presentations and conditions

Acute oncology	Commonly associated acute conditions/presentations
Acutely unwell adult patients who present as an emergency and have a suspected new diagnosis of cancer	<ul style="list-style-type: none"> ▪ Investigation of imaging suggestive of metastatic cancer ▪ Identification of the primary site of origin in those where metastatic cancer confirmed ▪ Management of metastatic cancer in those in whom a primary site of origin cannot be identified

<p>Acutely unwell adult patients who are currently receiving systemic anti-cancer treatment and/or radiotherapy.</p>	<ul style="list-style-type: none"> ▪ Infection in immuno-compromised patients ▪ Immune toxicities ▪ Specific-organ damage e.g. pneumonitis, nephropathy, hepatic failure, cardiotoxicity, ▪ Tumour lysis syndrome ▪ Acute radiation side effects e.g. mucositis, GI/GU effects, cutaneous toxicity
<p>Acutely unwell adult patients who have a known cancer diagnosis and may be suffering from acute complications of cancer</p>	<ul style="list-style-type: none"> • Pain • Malignant spinal cord compression • Superior vena cava obstruction • Cancer-related venous thromboembolism • Metabolic disorders e.g. hypercalcaemia, hyponatraemia • Seizures, reduced GCS • Para-neoplastic syndromes

3.5.2 Site-specific tumour types

For each tumour site, trainees will need to be familiar with such aspects as aetiology, epidemiology, clinical features, investigation, management and prognosis. Our approach is to provide general guidance and not exhaustive detail, which would inevitably become out of date.

Each trainee will spend a period of time attached to a team that will have a specialist interest and clinical attachments may be completed in any order within a training programme or rotation (for duration of training, see section 2.4). To achieve a Certificate of Completed Training (CCT) all required tumour types must have been assessed covered. These are:

Essential tumour types – indicative 6 months

- Breast cancer
- Colorectal and anal cancer
- Lung cancer and thoracic malignancies
- Upper GI cancer and Hepatobiliary (oesophagus, gastric, liver, biliary, pancreas and neuroendocrine tumours)
- Complex intensive therapies taken from any combination of the following:
 - Leukaemia
 - Multiple myeloma
 - Lymphoma
 - Germ cell tumours
 - Sarcoma (intensive therapies)
 - High dose chemotherapy and bone-marrow transplantation
 - Cellular therapies

Essential tumour types – indicative 4 months

- Urological cancers (renal, bladder, prostate)
- Gynaecological cancer
- Melanoma/skin

Cancer of Unknown Primary (CUP)

Management of patient with established CUP must be included alongside one of the above-listed essential tumour types.

Additional tumour types

It is expected that through their training, trainees will gain experience in a number of tumour types not included in the lists above.

4 Learning and Teaching

4.1 The training programme

The organisation and delivery of postgraduate training is the responsibility of the Health Education England (HEE), NHS Education for Scotland (NES), Health Education and Improvement Wales (HEIW) and the Northern Ireland Medical and Dental Training Agency (NIMDTA) – referred to from this point as ‘deaneries’. A training programme director (TPD) will be responsible for coordinating the specialty training programme. In England, the local organisation and delivery of training is overseen by a school of medicine.

Progression through the programme will be determined by the Annual Review of Competency Progression (ARCP) process and the training requirements for each indicative year of training are summarised in the ARCP decision aid (available on the [JRCPTB website](#)).

The sequence of training should ensure appropriate progression in experience and responsibility. The training to be provided at each training site is defined to ensure that, during the programme, the curriculum requirements are met and also that unnecessary duplication and educationally unrewarding experiences are avoided.

The following provides a guide on how training programmes should be focused in each training year in order for trainees to gain the experience and develop the capabilities to the level required.

Trainees will have an appropriate clinical supervisor and a named educational supervisor. The clinical supervisor and educational supervisor may be the same person.

Scientific Basis of Cancer

During the oncology common stem trainees should build an understanding of the scientific basis of cancer and its treatments, as this underpins all aspects of oncology practice. This

should be delivered through a formal programme of teaching comprising a minimum of 160 hours including lectures, tutorials and practical sessions.

Acute oncology

Training in acute oncology is a mandatory part of the curriculum for all trainees from ST3 to ST6 and trainees should develop capabilities in acute oncology longitudinally throughout training. It is not expected that trainees will develop the ability to practise independently in all aspects of this CiP in the OCS year alone.

Acute oncology service models vary according to regional service configurations and resources. They are delivered by multi-professional teams in a wide variety of settings from specialist teams in tertiary cancer centres, to supporting acute and general medical teams in district general hospitals. Acute oncology training may be delivered in this full range of settings, supervised and assessed by any appropriately qualified member of the acute oncology team. This is not limited to clinical oncology or medical oncology consultants provided that there are clear educational objectives linked to this CiP, effective feedback to trainees and opportunity for development in this area of practice.

Ring-fenced time for acute oncology training should be included in trainees' timetables. On call provision alone is not sufficient to constitute acute oncology training.

Further guidance on acute oncology training can be found on the JRCPTB website, along with links to national guidance on acute oncology services.

Tumour types

Tumour types in the OCS year

It is important to note that all of the CiPs are intended to be developed throughout higher specialty training. The focus in the OCS year is on the common oncology CiPs, (Section 3.3), but these will continue to be developed throughout higher training. As such, there is no content of the curriculum which is unique to the OCS year.

During this year, trainees should rotate through posts and tumour types that allow them to attain the required levels of progression for the common oncology CiPs, allowing broad exposure at an appropriate level to acute oncology, systemic anti-cancer treatments, radiation-based treatments and patients on clinical trials.

Tumour types in ST3-ST6

Trainees must complete posts covering acute oncology competencies and all mandatory tumour types by the end of ST6. There is no specific order in which this training needs to be completed.

Emerging technology

Trainees are expected to keep up to date with, embrace and evaluate emerging technologies, such as genomics and artificial intelligence (AI), and should be prepared to adapt these tools into clinical practice once validated.

4.2 Teaching and learning methods

The curriculum will be delivered through a variety of learning experiences and will allow trainees to achieve the capabilities described through a balanced range of learning methods. These have not changed from those detailed in the previous curriculum. The proportion of time allocated to different learning methods may vary depending on the nature of the attachment within a post and individual trainee learning need. Responsibility for delivering the training needed to meet the curriculum requirements rests with the individual training programmes under the oversight of the postgraduate deans. Training programmes will construct posts to enable trainees to experience the full range of educational and training opportunities available.

Clinical and educational supervisors are encouraged to identify learner-centred educational opportunities in the course of clinical work, maximising the wide variety of learning opportunities in the clinical oncology workplace. The range of learning opportunities available and educational approaches used includes:

Work-based experiential learning - attachments with appropriate levels of supervision according to competence;

- involvement in multidisciplinary team meetings
- on-call provision with appropriate levels of supervision by the consultant on-call
- acute oncology provision and management of oncological emergencies, under the supervision of appropriately qualified members of the multidisciplinary acute oncology team, with gradual increase in responsibility for managing the AOS team according to increasing competence
- out-patient oncology new patient, on-treatment and follow-up clinics
- care of oncology in-patients/review of oncology issues for in-patient under other teams
- radiotherapy planning and review
- work with clinical research teams managing patients on trials and participating in the management and administration associated with those trials.

Formal postgraduate teaching – This can take a variety of forms and may include

- a programme of formal, regular teaching sessions to cohorts of trainees
- case presentations, journal clubs, critical appraisal
- research, audit and quality improvement projects
- lectures and small group teaching
- grand rounds
- oncological skills demonstrations and teaching
- joint meetings with clinical specialties

- attendance at educational activities organised on a school, regional, national or international basis.

NB Formal postgraduate teaching on the scientific basis of cancer and its treatments- during the oncology common stem trainees should build an understanding of the scientific basis of cancer and its treatments, as this underpins all aspects of oncology practice. This should be delivered through a formal programme of teaching comprising a minimum of 160 hours including lectures, tutorials and practical sessions

Simulation - Simulation is recognised as a useful tool to supplement training in clinical situations. It provides experiential learning and an opportunity to reflect on and learn from mistakes in a safe environment. There are many scenarios in clinical oncology where simulation can play a useful role in supporting delivery of the curriculum and each training centre is encouraged to incorporate these techniques into the training programme wherever possible.

Formative assessments – a range of workplace based assessment is detailed in the curriculum

Formal professional development courses

Time to be made available for formal courses is encouraged, subject to local conditions of service. Examples include management and leadership courses and communication courses, which are particularly relevant to patient safety and experience.

Learning with peers There are many opportunities for trainees to learn with their peers. Local postgraduate teaching opportunities allow trainees of varied levels of experience to come together for small group sessions.

Independent self-directed learning Trainees will use this time in a variety of ways depending upon their stage of learning. Suggested activities include:

- reading, including web-based material such as e-Learning for Healthcare (e-LfH)
- maintenance of personal portfolio (self-assessment, reflective learning, personal development plan)
- audit, quality improvement and research projects
- reading journals
- achieving personal learning goals beyond the essential, core curriculum.

Specific trainer inputs - e.g. from a medical oncology supervisor for each attachment, a recognised specialist or structured teaching sessions

Oncology is a constantly evolving specialty and practice advances quickly. Trainees are expected to keep up to date with and to embrace emerging technologies, for example genomic and artificial intelligence tools are being developed to assist with diagnosis, treatment selection and patient management and trainees should be prepared to adopt these tools into clinical practice once validated.

4.3 Academic training

The four nations have different arrangements for academic training and doctors in training should consult the local deanery for further guidance.

Given the complexity of cancer treatments, the need to respond to frequent advances in treatment, and to deliver clinical trials, a thorough understanding of research methodology and techniques is needed by all trainees and a significant proportions will go on to academic consultant-level posts with associated basic science or translational laboratory programmes. Core requirements for all trainees are defined within this curriculum.

However, some trainees may choose to expand their research experiences and capabilities.

Trainees may train in academic medicine via appointment to a formal academic pathway such as an academic clinical fellow (ACF), academic clinical lecturer (ACL) or equivalent. Academic trainees can be recruited at any point in the training programme.

Some trainees may opt to do additional research leading to a higher degree without being appointed to a formal academic programme via time out of programme for research (OOPR). This new curriculum should not impact in any way on the facility to take OOPR. See Section 4.4 below for further information on taking time out of programme.

4.4 Taking time out of programme

There are a number of circumstances when a trainee may seek to spend some time out of specialty training, such as undertaking a period of research or taking up a fellowship post. All such requests must be agreed by the postgraduate dean in advance and trainees are advised to discuss their proposals as early as possible. Full guidance on taking time out of programme can be found in the Gold Guide.

4.5 Acting up as a consultant

A trainee coming towards the end of their training may spend up to three months “acting-up” as a consultant, provided that a consultant supervisor is identified for the post and satisfactory progress is made. As long as the trainee remains within an approved training programme, the GMC does not need to approve this period of “acting up” and their original CCT date will not be affected. More information on acting up as a consultant can be found in the Gold Guide.

5 Programme of Assessment

5.1 Purpose of assessment

The purpose of the programme of assessment is to:

- Assess trainees' actual performance in the workplace.
- Enhance learning by providing formative assessment, enabling trainees to receive immediate feedback, understand their own performance and identify areas for development.
- Drive learning and enhance the training process by making it clear what is required of trainees and motivating them to ensure they receive suitable training and experience.
- Demonstrate trainees have acquired the GPCs and meet the requirements of GMP.
- Ensure that trainees possess the essential underlying knowledge required for their specialty.
- Provide robust, summative evidence that trainees are meeting the curriculum standards during the training programme.
- Inform the ARCP, identifying any requirements for targeted or additional training where necessary and facilitating decisions regarding progression through the training programme.
- Identify trainees who should be advised to consider changes of career direction.

5.2 Programme of Assessment

Our programme of assessment refers to the integrated framework of the Medical Oncology SCE, assessments in the workplace and judgements made about a learner during their approved programme of training. The purpose of the programme of assessment is to robustly evidence, ensure and clearly communicate the expected levels of performance at critical progression points in, and to demonstrate satisfactory completion of training as required by the curriculum.

The programme of assessment is comprised of several different individual types of assessment. A range of assessments is needed to generate the necessary evidence required for global judgements to be made about satisfactory performance, progression in, and completion of, training. All assessments, including those conducted in the workplace, are linked to the relevant curricular learning outcomes (e.g. through the blueprinting of assessment system to the stated curricular outcomes).

The programme of assessment emphasises the importance and centrality of professional judgement in making sure learners have met the learning outcomes and expected levels of performance set out in the approved curricula. Assessors will make accountable, professional judgements. The programme of assessment includes how professional judgements are used and collated to support decisions on progression and satisfactory completion of training.

The assessments will be supported by structured feedback for trainees. Assessment tools will be both formative and summative and have been selected on the basis of their fitness for purpose.

Assessment will take place throughout the training programme to allow trainees continually to gather evidence of learning and to provide formative feedback. Those assessment tools which are not identified individually as summative will contribute to summative judgements about a trainee's progress as part of the programme of assessment. The number and range

of these will ensure a reliable assessment of the training relevant to their stage of training and achieve coverage of the curriculum.

Reflection and feedback should be an integral component to all SLEs and WBPAs. In order for trainees to maximise benefit, reflection and feedback should take place as soon as possible after an event. Every clinical encounter can provide a unique opportunity for reflection and feedback and this process should occur frequently. Feedback should be of high quality and should include an action plan for future development for the trainee. Both trainees and trainers should recognise and respect cultural differences when giving and receiving feedback.

5.3 Assessment of CiPs

Assessment of CiPs involves looking across a range of different skills and behaviours to make global decisions about a learner's suitability to take on particular responsibilities or tasks.

Clinical supervisors and others contributing to assessment will provide formative feedback to the trainee on their performance throughout the training year. This feedback will include a global rating in order to indicate to the trainee and their educational supervisor how they are progressing at that stage of training. To support this, workplace based assessments and multiple consultant reports will include global assessment anchor statements.

Global assessment anchor statements

- Below expectations for this year of training; may not meet the requirements for critical progression point
- Meeting expectations for this year of training; expected to progress to next stage of training
- Above expectations for this year of training; expected to progress to next stage of training

Towards the end of the training year, trainees will make a self-assessment of their progression for each CiP and record this in the ePortfolio with signposting to the evidence to support their rating.

The educational supervisor (ES) will review the evidence in the ePortfolio including workplace based assessments, feedback received from clinical supervisors (via the Multiple Consultant Report) and the trainee's self-assessment and record their judgement on the trainee's performance in the ES report, with commentary.

For **generic CiPs**, the ES will indicate whether the trainee is meeting expectations or not using the global anchor statements above. Trainees will need to be meeting expectations for the stage of training as a minimum to be judged satisfactory to progress to the next training year.

For **specialty CiPs**, the ES will make an entrustment decision for each CiP and record the indicative level of supervision required with detailed comments to justify their entrustment

decision. The ES will also indicate the most appropriate global anchor statement (see above) for overall performance.

Level descriptors for specialty CiPs

Level	Descriptor
Level 1	Entrusted to observe only – no provision of clinical care
Level 2	Entrusted to act with direct supervision: The trainee may provide clinical care, but the supervising physician is physically within the hospital or other site of patient care and is immediately available if required to provide direct bedside supervision
Level 3	Entrusted to act with indirect supervision: The trainee may provide clinical care when the supervising physician is not physically present within the hospital or other site of patient care, but is available by means of telephone and/or electronic media to provide advice, and can attend at the bedside if required to provide direct supervision
Level 4	Entrusted to act unsupervised

The ARCP will be informed by the ES report and the evidence presented in the ePortfolio. The ARCP panel will make the final summative judgement on whether the trainee has achieved the generic outcomes and the appropriate level of supervision for each CiP. The ARCP panel will determine whether the trainee can progress to the next year/level of training in accordance with the Gold Guide. ARCPs will be held for each training year. The final ARCP will ensure trainees have achieved level 4 in all CiPs for the critical progression point at completion of training.

5.4 Critical progression points

There will be key progression points on entry and on completion of specialty training. Trainees will be required to be entrusted at level 4 in all CiPs by the end of training in order to achieve an ARCP outcome 6 and be recommended for a CCT.

The educational supervisor report will make a recommendation to the ARCP panel as to whether the trainee has met the defined levels for the CiPs and acquired the procedural competence required for each year of training. The ARCP panel will make the final decision on whether the trainee can be signed off and progress to the next year/level of training [see section 5.6].

The outline grid below sets out the expected level of supervision and entrustment for the specialty CiPs and includes the critical progression points across the whole training programme.

Table 1: Outline grid of levels expected for Medical Oncology specialty CiPs

Levels to be achieved by the end of each training year for specialty CiPs

Level descriptors

Level 1: Entrusted to observe only – no clinical care

Level 2: Entrusted to act with direct supervision

Level 3: Entrusted to act with indirect supervision

Level 4: Entrusted to act unsupervised

Table 2: Progression grid for generic CiPs, showing minimum expected progress at the end of each stage of training

Oncology CiP	OCS	Medical Oncology Training				CCT
	ST3	ST4	ST5	ST6		
7. Applying knowledge and understanding of the scientific principles that underpin malignancy for the provision of high-quality and safe patient-centred cancer care.	2	3	3	4	CCT	
8. Delivering the acute oncology take, managing oncological emergencies and providing oncology advice to other healthcare professionals as part of an Acute Oncology Service and managing the AOS team	3	3	3	4		
9. Providing continuity of care to oncology in-patients to include the effective management of disease and treatment-related complications, the acutely deteriorating patient and the palliative care/end-of-life needs of those with advanced cancer	3	4	4	4		
10. Working effectively within and contributing expert opinion to the tumour site-specific multidisciplinary team (MDT) meeting to inform evidence-based management plans individualised to the needs of each patient, leading discussions where appropriate	2	3	3	4		

11. Assessing patients at all stages of the cancer pathway from diagnosis to end-of-life care, considering the holistic needs of individuals and the additional needs of vulnerable groups to formulate patient-centred management plans	2	3	3	4	
12. Safely and effectively delivering, and managing patients receiving, standard systemic anticancer therapies (SACT) in the curative, neo-adjuvant, adjuvant and palliative settings	2	3	3	4	
13. Acting as an advocate for health promotion and high-quality cancer survivorship, advising on cancer prevention, management of long-term treatment-related sequelae and patient self-management strategies	2	3	4	4	

Table 3: Progression grid for Medical oncology-specific CiPs, showing minimum expected progress at the end of each stage of training

	OCS	Medical Oncology Training			
Medical Oncology CiPs	ST3	ST4	ST5	ST6	CCT
14. Safely and effectively delivering, and managing patients receiving, intensive complex systemic anti-cancer therapies	2	2	3	4	
15. Developing guidelines and protocols to safely implement new and emerging diagnostic and systemic anticancer therapeutic approaches	2	2	3	4	
16. Managing the training and supervision of non-medical prescribers of systemic anticancer therapies	2	2	3	4	
17. Integrating biomarkers and genomic information to refine diagnosis and develop personalised treatment plans for cancer patients	2	2	3	4	
18. Implement clinical trials of systemic anticancer treatments at investigator level for all phases, with the skills to lead late phase (Phase III) trials as Principal Investigator.	2	2	3	4	

5.5 Evidence of progress

The following methods of assessment will provide evidence of progress in the integrated programme of assessment. The requirements for each training year/level are stipulated in the ARCP decision aid (www.jrcptb.org.uk).

Summative assessment

Examinations and certificates

- Medical Oncology Specialty Certificate Examination (SCE).
The Specialty Certificate Examination has been developed by the Federation of Royal Colleges of Physicians in conjunction with the Association of Cancer Physicians. The examination tests the extra knowledge base that trainees have acquired since taking the MRCP(UK) diploma. The knowledge base itself must be associated with adequate use of such knowledge and passing this examination must be combined with satisfactory progress in workplace based assessments for the trainee to successfully reach the end of training and be awarded the CCT in Medical Oncology. Information is available on the [MRCPUK website](http://www.mrcpuk.org).
- Good Clinical Practice Certificate

Workplace-based assessment (WPBA)

Formative assessment

Supervised Learning Events (SLEs)/WBPA

- Acute Care Assessment Tool (ACAT)
- Case-Based Discussions (CbD)
- mini-Clinical Evaluation Exercise (mini-CEX)
- Direct Observation of Systemic Therapy (DOST)
- Direct Observation of Radiotherapy Planning Skills (DORPS)
- Multi-Source Feedback (MSF)
- Patient Survey (PS)
- Quality Improvement Project Assessment Tool (QIPAT)
- Teaching Observation (TO).

Supervisor reports

- Multiple Consultant Report (MCR)
- Educational Supervisor Report (ESR).

These methods are described briefly below. More information and guidance for trainees and assessors are available in the ePortfolio and on the JRCPTB website (www.jrcptb.org.uk).

Assessment should be recorded in the trainee's ePortfolio. These methods include feedback opportunities as an integral part of the programme of assessment.

Acute Care Assessment Tool (ACAT)

The ACAT is designed to assess and facilitate feedback on a doctor's performance during their practice on the acute take. It is primarily for assessment of their ability to prioritise, to work efficiently, to work with and lead a team, and to interact effectively with nursing and other colleagues. It can also be used for assessment and feedback in relation to care of individual patients. Any doctor who has been responsible for the supervision of the acute take can be the assessor for an ACAT. This is clearly appropriate for assessing and facilitating feedback on practice in an acute oncology setting.

Case-based Discussion (CbD)

The CbD assesses the performance of a trainee in their management of a patient to provide an indication of competence in areas such as clinical reasoning, decision-making and application of medical knowledge in relation to patient care. It also serves as a method to document conversations about, and presentations of, cases by trainees. The CbD should focus on a written record (such as written case notes, out-patient letter, and discharge summary). A typical encounter might be when presenting newly referred patients in the out-patient department.

mini-Clinical Evaluation Exercise (mini-CEX)

This tool evaluates a clinical encounter with a patient to provide an indication of competence in skills essential for good clinical care such as history taking, examination and clinical reasoning. The trainee receives immediate feedback to aid learning. The mini-CEX can be used at any time and in any setting when there is a trainee and patient interaction and an assessor is available.

Direct Observation of Systemic Therapy (DOST)

The DOST is an assessment tool designed to assess the performance of a trainee in undertaking, authorising, prescribing and taking consent for systemic therapy, against a structured checklist. The trainee receives immediate feedback to identify strengths and areas for development.

Direct observation of radiotherapy planning skills (DORPS)

The DORPS is a structured checklist for assessing the performance of a trainee in undertaking radiotherapy planning. Assessors must be trained both in radiotherapy planning and feedback methodology. Trainees should agree the timing and assessor, although assessors may also carry out unscheduled assessments. Trainees should receive immediate feedback to identify strengths and areas for development.

Multi-source feedback (MSF)

This tool is a method of assessing generic skills such as communication, leadership, team working, reliability etc, across the domains of Good Medical Practice. This provides systematic collection and feedback of performance data on a trainee, derived from a number of colleagues. 'Raters' are individuals with whom the trainee works, and includes doctors, administrative staff, and other allied professionals. Raters should be agreed with

the educational supervisor at the start of the training year. The trainee will not see the individual responses by raters. Feedback is given to the trainee by the Educational Supervisor.

Patient Survey (PS)

A trainee's interaction with patients should be continually observed and assessed. The Patient Survey provides a tool to assess a trainee during a consultation period. The Patient Survey assesses the trainee's performance in areas such as interpersonal skills, communication skills and professionalism.

Quality Improvement Project Assessment Tool (QIPAT)

The QIPAT is designed to assess a trainee's competence in completing a quality improvement project. The QIPAT can be based on review of quality improvement project documentation or on a presentation of the quality improvement project at a meeting. If possible, the trainee should be assessed on the same quality improvement project by more than one assessor.

Teaching Observation (TO)

The TO form is designed to provide structured, formative feedback to trainees on their competence at teaching. The TO can be based on any instance of formalised teaching by the trainee which has been observed by the assessor. The process should be trainee-led (identifying appropriate teaching sessions and assessors).

Multiple Consultant Report (MCR)

The MCR captures the views of consultant supervisors based on observation on a trainee's performance in practice. The MCR feedback and comments received give valuable insight into how well the trainee is performing, highlighting areas of excellence and areas of support required. MCR feedback will be available to the trainee and contribute to the educational supervisor's report.

Educational supervisors report (ESR)

The ES will periodically (at least annually) record a longitudinal, global report of a trainee's progress based on a range of assessment, potentially including observations in practice or reflection on behaviour by those who have appropriate expertise and experience. The ESR can incorporate commentary or reports from longitudinal observations, such as from supervisors or formative assessments demonstrating progress over time.

5.6 Decisions on progress (ARCP)

The decisions made at regular review throughout, and upon completion of training should be clear and defensible. They must be fair and robust and make use of evidence from a range of assessments, potentially including exams and observations in practice or reflection on behaviour by those who have appropriate expertise or experience. They can also incorporate commentary or reports from longitudinal observations, such as from supervisors or formative assessments demonstrating progress over time.

Periodic (at least annual) review should be used to collate and systematically review evidence about a doctor's performance and progress in a holistic way and make decisions about their progression in training. The annual review of progression (ARCP) process supports the collation and integration of evidence to make decisions about the achievement of expected outcomes.

Assessment of CiPs involves looking across a range of different skills and behaviours to make global decisions about a learner's suitability to take on particular responsibilities or tasks, as do decisions about the satisfactory completion of presentations/conditions and procedural skills set out in this curriculum. The outline grid in section 5.4 sets out the level of supervision expected for each of the clinical and specialty CiPs. The requirements for each year of training are set out in the ARCP decision aid (www.jrcptb.org.uk).

The ARCP process is described in the Gold Guide. Deaneries are responsible for organising and conducting ARCPs. The evidence to be reviewed by ARCP panels should be collected in the trainee's ePortfolio.

As a precursor to ARCPs, JRCPTB strongly recommend that trainees have an informal ePortfolio review either with their educational supervisor or arranged by the local school of medicine. These provide opportunities for early detection of trainees who are failing to gather the required evidence for ARCP.

The penultimate ARCP prior to the anticipated CCT date will include an external assessor from outside the training programme. This is known as a Penultimate Year Assessment (PYA) and will identify any outstanding targets that the trainee will need to complete to meet all the learning outcomes.

The penultimate ARCP prior to the anticipated CCT date will include an external assessor from outside the training programme. This is known as a Penultimate Year Assessment (PYA) and will identify any outstanding targets that the trainee will need to complete to meet all the learning outcomes

In order to guide trainees, supervisors and the ARCP panel, JRCPTB has produced an ARCP decision aid which sets out the requirements for a satisfactory ARCP outcome at the end of each training year and critical progression point. The ARCP decision aid is available on the JRCPTB website www.jrcptb.org.uk.

Poor performance should be managed in line with the Gold Guide.

5.7 Assessment blueprint

The table below show the possible methods of assessment for each CiP. It is not expected that every method will be used for each competency and additional evidence may be used to help make a judgement on capability.

Blueprint for WPBAs mapped to CiPs

Learning outcomes	ACAT	CbD	MCR	Mini -CEX	MISF	PS	QIPAT	TO	DOST	DORPS	SCE
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 focused on patient safety and delivers effective quality improvement in patient care	√	√	√	√	√		√		√	√	√
5.Carrying out research and managing data appropriately			√		√		√	√			√
6.Acting as a clinical teacher and clinical supervisor			√		√			√			
Oncology CiPs											
7.Applying knowledge and understanding of the scientific principles that underpin malignancy for the provision of high-quality and safe patient-centred cancer care	√	√	√	√					√	√	√
8.Delivering the acute oncology take, managing oncological emergencies and providing oncology advice to other healthcare professionals as part of an Acute Oncology Service and managing the AOS team	√	√	√	√	√		√			√	√
9.Providing continuity of care to oncology in-patients to include the effective management of disease and treatment-related complications, the acutely deteriorating patient and the palliative care/end-of-life needs of those with advanced cancer	√	√	√	√	√				√	√	√
10.Working effectively within and contributing expert opinion to the tumour site-specific multidisciplinary team (MDT) meeting to inform evidence-based management plans individualised to the needs of each patient, leading discussions where appropriate	√	√	√	√	√	√				√	√

Learning outcomes	ACAT	CbD	MCR	Mini-CEX	MSF	PS	QIPAT	TO	DOST	DORPS	SCE
11. Assessing patients at all stages of the cancer pathway from diagnosis to end-of-life care, considering the holistic needs of individuals and the additional needs of vulnerable groups to formulate patient-centred management plans	√	√	√	√	√				√	√	√
12. Safely and effectively delivering, and managing patients receiving, standard systemic anticancer therapies (SACT) in the curative, neo-adjuvant, adjuvant and palliative settings	√	√	√	√	√				√	√	√
13. Acting as an advocate for health promotion and high-quality cancer survivorship, advising on cancer prevention, management of long-term treatment-related sequelae and patient self-management strategies	√	√	√	√	√	√	√		√		
Medical Oncology CiPs											
14. Safely and effectively deliver, and manage patients receiving, intensive complex systemic anti-cancer therapies	√	√	√	√	√				√		√
15. Developing guidelines and protocols to safely implement new and emerging diagnostic and systemic anticancer therapeutic approaches		√	√	√	√		√				
16. Managing the training and supervision of non-medical prescribers of systemic anticancer therapies			√		√	√		√			
17. Integrating biomarkers and genomic information to refine diagnosis and develop personalised treatment plans for cancer patients		√	√	√					√		√
18. Implement clinical trials of systemic anticancer treatments at investigator level for all phases, with the skills to lead late phase (Phase III) trials as Principal Investigator		√	√	√					√		√

6 Supervision and feedback

This section of the curriculum describes how trainees will be supervised, and how they will receive feedback on performance. For further information please refer to the AoMRC guidance on Improving feedback and reflection to improve learning¹².

Access to high quality, supportive and constructive feedback is essential for the professional development of the trainee. Trainee reflection is an important part of the feedback process and exploration of that reflection with the trainer should ideally be a two way dialogue. Effective feedback is known to enhance learning and combining self-reflection to feedback promotes deeper learning.

Trainers should be supported to deliver valuable and high quality feedback. This can be by providing face to face training to trainers. Trainees would also benefit from such training as they frequently act as assessors to junior doctors, and all involved could also be shown how best to carry out and record reflection.

6.1 Supervision

All elements of work in training posts must be supervised with the level of supervision varying depending on the experience of the trainee and the clinical exposure and case mix undertaken. Outpatient and referral supervision must routinely include the opportunity to discuss all cases with a supervisor if appropriate. As training progresses the trainee should have the opportunity for increasing autonomy, consistent with safe and effective care for the patient.

Organisations must make sure that each doctor in training has access to a named clinical supervisor and a named educational supervisor. Depending on local arrangements these roles may be combined into a single role of educational supervisor. However, it is preferred that a trainee has a single named educational supervisor for (at least) a full training year, in which case the clinical supervisor is likely to be a different consultant during some placements.

The role and responsibilities of supervisors have been defined by the GMC in their standards for medical education and training¹³.

Educational supervisor

The educational supervisor is responsible for the overall supervision and management of a doctor's educational progress during a placement or a series of placements. The educational supervisor regularly meets with the doctor in training to help plan their training, review progress and achieve agreed learning outcomes. The educational supervisor is responsible for the educational agreement, and for bringing together all relevant evidence to form a summative judgement about progression at the end of the placement or a series of placements.

¹² [Improving feedback and reflection to improve learning. A practical guide for trainees and trainers](#)

¹³ [Promoting excellence: standards for medical education and training](#)

Clinical supervisor

Consultants responsible for patients that a trainee looks after provide clinical supervision for that trainee and thereby contribute to their training; they may also contribute to assessment of their performance by completing a 'Multiple Consultant Report (MCR)' and other WPBAs. A trainee may also be allocated (for instance, if they are not working with their educational supervisor in a particular placement) a named clinical supervisor, who is responsible for reviewing the trainee's training and progress during a particular placement. It is expected that a named clinical supervisor will provide a MCR for the trainee to inform the Educational Supervisor's report.

The educational and (if relevant) clinical supervisors, when meeting with the trainee, should discuss issues of clinical governance, risk management and any report of any untoward clinical incidents involving the trainee. If the service lead (clinical director) has any concerns about the performance of the trainee, or there are issues of doctor or patient safety, these would be discussed with the clinical and educational supervisors (as well as the trainee). These processes, which are integral to trainee development, must not detract from the statutory duty of the trust to deliver effective clinical governance through its management systems.

Educational and clinical supervisors need to be formally recognised by the GMC to carry out their roles¹⁴. It is essential that training in assessment is provided for trainers and trainees in order to ensure that there is complete understanding of the assessment system, assessment methods, their purposes and use. Training will ensure a shared understanding and a consistency in the use of the WPBAs and the application of standards.

Opportunities for feedback to trainees about their performance will arise through the use of the workplace based assessments, regular appraisal meetings with supervisors, other meetings and discussions with supervisors and colleagues, and feedback from ARCP.

Trainees

Trainees should make the safety of patients their first priority and they should not be practising in clinical scenarios which are beyond their experiences and competencies without supervision. Trainees should actively devise individual learning goals in discussion with their trainers and should subsequently identify the appropriate opportunities to achieve said learning goals. Trainees would need to plan their WPBAs accordingly to enable their WPBAs to collectively provide a picture of their development during a training period. Trainees should actively seek guidance from their trainers in order to identify the appropriate learning opportunities and plan the appropriate frequencies and types of WPBAs according to their individual learning needs. It is the responsibility of trainees to seek feedback following learning opportunities and WPBAs. Trainees should self-reflect and self-evaluate regularly with the aid of feedback. Furthermore, trainees should formulate action plans with further learning goals in discussion with their trainers.

¹⁴ [Recognition and approval of trainers](#)

6.2 Appraisal

A formal process of appraisals and reviews underpins training. This process ensures adequate supervision during training, provides continuity between posts and different supervisors and is one of the main ways of providing feedback to trainees. All appraisals should be recorded in the ePortfolio

Induction Appraisal

The trainee and educational supervisor should have an appraisal meeting at the beginning of each post to review the trainee's progress so far, agree learning objectives for the post ahead and identify the learning opportunities presented by the post. Reviewing progress through the curriculum will help trainees to compile an effective Personal Development Plan (PDP) of objectives for the upcoming post. This PDP should be agreed during the Induction Appraisal. The trainee and supervisor should also both sign the educational agreement in the e-portfolio at this time, recording their commitment to the training process.

Mid-point Review

This meeting between trainee and educational supervisor is not mandatory (particularly when an attachment is shorter than 6 months) but is encouraged particularly if either the trainee or educational or clinical supervisor has training concerns or the trainee has been set specific targeted training objectives at their ARCP). At this meeting trainees should review their PDP with their supervisor using evidence from the e-portfolio. Workplace based assessments and progress through the curriculum can be reviewed to ensure trainees are progressing satisfactorily, and attendance at educational events should also be reviewed. The PDP can be amended at this review.

End of Attachment Appraisal

Trainees should review the PDP and curriculum progress with their educational supervisor using evidence from the e-portfolio. Specific concerns may be highlighted from this appraisal. The end of attachment appraisal form should record the areas where further work is required to overcome any shortcomings. Further evidence of competence in certain areas may be needed, such as planned workplace based assessments, and this should be recorded. If there are significant concerns following the end of attachment appraisal then the programme director should be informed. Supervisors should also identify areas where a trainee has performed about the level expected and highlight successes.

7 Quality Management

The organisation of training programs is the responsibility of the deaneries. The deaneries will oversee programmes for postgraduate medical training in their regions. The Schools of Medicine in England, Wales and Northern Ireland and the Medical Specialty Training Board in Scotland will undertake the following roles:

- oversee recruitment and induction of trainees into the specialty
- allocate trainees into particular rotations appropriate to their training needs
- oversee the quality of training posts provided locally
- ensure adequate provision of appropriate educational events
- ensure curricula implementation across training programmes

- oversee the workplace-based assessment process within programmes
- coordinate the ARCP process for trainees
- provide adequate and appropriate career advice
- provide systems to identify and assist doctors with training difficulties
- provide flexible training.

Educational programmes to train educational supervisors and assessors in workplace based assessment may be delivered by deaneries or by the colleges or both.

Development, implementation, monitoring and review of the curriculum are the responsibility of the JRCPTB and the SAC. The committee will be formally constituted with representatives from each health region in England, from the devolved nations and with trainee and lay representation. It will be the responsibility of the JRCPTB to ensure that curriculum developments are communicated to heads of school, regional specialty training committees and TPDs.

The JRCPTB has a role in quality management by monitoring and driving improvement in the standard of all medical specialties on behalf of the three Royal Colleges of Physicians in Edinburgh, Glasgow and London. The SACs are actively involved in assisting and supporting deaneries to manage and improve the quality of education within each of their approved training locations. They are tasked with activities central to assuring the quality of medical education such as writing the curriculum and assessment systems, reviewing applications for new posts and programmes, provision of external advisors to deaneries and recommending trainees eligible for CCT or Certificate of Eligibility for Specialist Registration (CESR).

JRCPTB uses data from six quality datasets across its specialties and subspecialties to provide meaningful quality management. The datasets include the GMC national Training Survey (NTS) data, ARCP outcomes, examination outcomes, new consultant survey, penultimate year assessments (PYA)/external advisor reports and the monitoring visit reports.

Quality criteria have been developed to drive up the quality of training environments and ultimately improve patient safety and experience. These are monitored and reviewed by JRCPTB to improve the provision of training and ensure enhanced educational experiences.

8 Intended use of curriculum by trainers and trainees

This curriculum and ARCP decision aid are available from the Joint Royal Colleges of Physicians Training Board (JRCPTB) via the website www.jrcptb.org.uk.

Clinical and educational supervisors should use the curriculum and decision aid as the basis of their discussion with trainees, particularly during the appraisal process. Both trainers and trainees are expected to have a good knowledge of the curriculum and should use it as a guide for their training programme.

Each trainee will engage with the curriculum by maintaining an ePortfolio. The trainee will use the curriculum to develop learning objectives and reflect on learning experiences.

Recording progress in the ePortfolio

On enrolling with JRCPTB trainees will be given access to the ePortfolio which allows evidence to be built up to inform decisions on a trainee's progress and provides tools to support trainees' education and development.

The trainee's main responsibilities are to ensure the it is kept up to date, arrange assessments and ensure they are recorded, prepare drafts of appraisal forms, maintain their personal development plan, record their reflections on learning and record their progress through the curriculum.

The supervisor's main responsibilities are to use it evidence such as outcomes of assessments, reflections and personal development plans to inform appraisal meetings. They are also expected to update the trainee's record of progress through the curriculum, write end-of-attachment appraisals and supervisor's reports.

Deaneries, training programme directors, college tutors and ARCP panels may use it to monitor the progress of trainees for whom they are responsible.

JRCPTB will use summarised, anonymous ePortfolio data to support its work in quality assurance.

All appraisal meetings, personal development plans and workplace based assessments (including MSF) should be recorded in the ePortfolio. Trainees are encouraged to reflect on their learning experiences and to record these. Reflections can be kept private or shared with supervisors.

Reflections, assessments and other ePortfolio content should be used to provide evidence towards acquisition of curriculum capabilities. Trainees should add their own self-assessment ratings to record their view of their progress. The aims of the self-assessment are:

- To provide the means for reflection and evaluation of current practice.
- To inform discussions with supervisors to help both gain insight and assists in developing personal development plans.
- To identify shortcomings between experience, competency and areas defined in the curriculum so as to guide future clinical exposure and learning.

Supervisors can sign-off and comment on curriculum capabilities to build up a picture of progression and to inform ARCP panels.

9 Equality and diversity

The Royal Colleges of Physicians will comply, and ensure compliance, with the requirements of equality and diversity legislation set out in the Equality Act 2010.

The Federation of the Royal Colleges of Physicians believes that equality of opportunity is fundamental to the many and varied ways in which individuals become involved with the Colleges, either as members of staff and Officers; as advisers from the medical profession; as members of the Colleges' professional bodies or as doctors in training and examination candidates.

Deaneries quality assurance will ensure that each training programme complies with the equality and diversity standards in postgraduate medical training as set by GMC. They should provide access to a professional support unit or equivalent for trainees requiring additional support.

Compliance with anti-discriminatory practice will be assured through:

- monitoring of recruitment processes
- ensuring all College representatives and Programme Directors have attended appropriate training sessions prior to appointment or within 12 months of taking up post
- Deaneries ensuring that educational supervisors have had equality and diversity training (for example, an e-learning module) every three years
- Deaneries ensuring that any specialist participating in trainee interview/appointments committees or processes has had equality and diversity training (at least as an e-module) every three years
- ensuring trainees have an appropriate, confidential and supportive route to report examples of inappropriate behaviour of a discriminatory nature. Deaneries and Programme Directors must ensure that on appointment trainees are made aware of the route in which inappropriate or discriminatory behaviour can be reported and supplied with contact names and numbers. Deaneries must also ensure contingency mechanisms are in place if trainees feel unhappy with the response or uncomfortable with the contact individual
- providing resources to trainees needing support (for example, through the provision of a professional support unit or equivalent)
- monitoring of College Examinations
- ensuring all assessments discriminate on objective and appropriate criteria and do not unfairly advantage or disadvantage a trainee with any of the Equality Act 2010 protected characteristics. All efforts shall be made to ensure the participation of people with a disability in training through reasonable adjustments.

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