SPECIALTY TRAINING CURRICULUM

FOR

MEDICAL ONCOLOGY
2017

Implementation date: 2 August 2017

Joint Royal Colleges of Physicians Training Board

5 St Andrews Place
Regent's Park
London NW1 4LB

Telephone: (020) 3075 1621
Email: ptb@jrcptb.org.uk
Website: www.jrcptb.org.uk

Table of Contents

1 Introduction

The origins of Medical Oncology lie in the haematological and paediatric malignancies. It began very much as a small research orientated specialty and clinical research remains an important feature of its activities. Over the last 20 years, enormous developments have taken place in the medical management of cancer and particularly in the development of orthodox therapies for the common solid tumours.

Today, Medical Oncology is a broad-based clinical specialty with the responsibility to ensure that state-of-the-art therapies of established efficacy for the common cancers are delivered on a national basis, within a framework of care for the patient as an individual. Medical oncologists nowadays with increasing frequency see patients at the outset of their disease for consideration of adjuvant and preoperative (neoadjuvant) therapies. They must therefore be trained to work as part of a multidisciplinary team, able to advise on all aspects of treatment including surgery and radiotherapy as well as having the skills in training to deliver specialist medical therapy.

Patients under the care of a consultant in Medical Oncology often have advanced, progressive, life-threatening disease for whom the focus of care is maximising their quality of life through expert symptom management, psychological, social and spiritual support as part of a multi-professional team. There are therefore close links with the specialty of Palliative Medicine and other specialist palliative care units.

2 Rationale

2.1 Purpose of the curriculum

The purpose of this curriculum is to define the process of training and the competencies needed for the award of a certificate of completion of training (CCT) and to be on the specialist register in Medical Oncology.

The curriculum covers training in all four nations of the UK.

2.2 Development

This curriculum was developed by the Specialty Advisory Committee for Medical Oncology with representation from the Association of Cancer Physicians under the direction of the Joint Royal Colleges of Physicians Training Board (JRCPTB). It replaces the previous version of the curriculum dated August 2010, with changes to ensure the curriculum meets GMC's standards for Curricula and Assessment, and to incorporate revisions to the content and delivery of the training programme. Major changes from the previous curriculum include the incorporation of Common, leadership and health inequalities competencies.

Contributors to the curriculum development include:

- Dr Graham Dark, Consultant Medical Oncologist, SAC Curriculum Lead
- Members of the Specialty Advisory Committee (SAC)
- Members of the Education Committee of the Association of Cancer Physicians
- Regional Speciality Advisors in Medical Oncology
- Trainee Members of Cancer Physicians in Training

2.3 Training Pathway

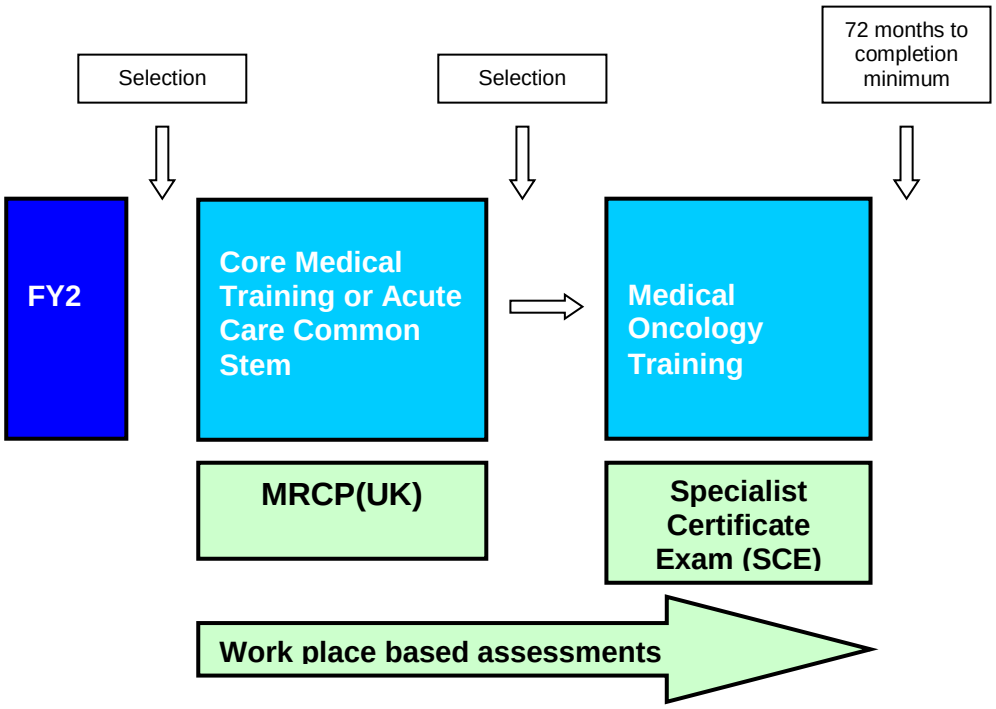
Specialty training in Medical Oncology consists of core and higher speciality training. Core training provides physicians with: the ability to investigate, treat and diagnose patients with acute and chronic medical symptoms; and with high quality review skills for managing inpatients and outpatients. Higher speciality training then builds on these core skills to develop the specific competencies required to practise independently as a Medical Oncologist.

Core training may be completed in either a Core Medical Training (CMT) or Acute Care Common Stem (ACCS) programme. The full curriculum for specialty training in Medical Oncology therefore consists of the curriculum for either CMT or ACCS plus this specialty training curriculum for Medical Oncology.

Core Medical training programmes are designed to deliver core training for specialty training by acquisition of knowledge and skills as assessed by the workplace based assessments and the MRCP. Programmes are usually for two years and are broad based consisting of four to six placements in medical specialties. These placements over the two years must include direct involvement in the acute medical take. Trainees are asked to document their record of workplace based assessments in an ePortfolio which will then be continued to document assessments in specialty training. Trainees completing core training will have a solid platform of common knowledge and skills from which to continue into Specialty Training at ST3, where these skills will be developed and combined with specialty knowledge and skills in order to award the trainee with a certificate of completion of training (CCT).

There are common competencies that should be acquired by all physicians during their training period starting within the undergraduate career and developed throughout the postgraduate career for example communication, examination and history taking skills. These are initially defined for CMT and then developed further in the specialty. This part of the curriculum supports the spiral nature of learning that underpins a trainee's continual development. It recognises that for many of the competences outlined there is a maturation process whereby practitioners become more adept and skilled as their career and experience progresses. It is intended that doctors should recognise that the acquisition of basic competences is often followed by an increasing sophistication and complexity of that competence throughout their career. This is reflected by increasing expertise in their chosen career pathway.

The approved curriculum for CMT is a sub-set of the Curriculum for General Internal Medicine (GIM). A "Framework for CMT" has been created for the convenience of trainees, supervisors, tutors and programme directors. The body of the Framework document has been extracted from the approved curriculum but only includes the syllabus requirements for CMT and not the further requirements for acquiring a CCT in GIM.



2.4 Enrolment with JRCPTB

Trainees are required to register for specialist training with JRCPTB at the start of their training programmes. Enrolment with JRCPTB, including the complete payment of enrolment fees, is required before JRCPTB will be able to recommend trainees for a CCT Trainees can enrol online at www.jrcptb.org.uk

2.5 Duration of training

Although this curriculum is competency based, the SAC has advised that training from ST1 will usually be completed in 6 (six) years in full time training (2 years core plus 4 years specialty training).

2.6 Less Than Full Time Training (LTFT)

Trainees who are unable to work full-time are entitled to opt for less than full time training programmes. EC Directive 2005/36/EC requires that:

- LTFT shall meet the same requirements as full-time training, from which it will differ only in the possibility of limiting participation in medical activities.
- The competent authorities shall ensure that the competencies achieved and the quality of part-time training are not less than those of full-time trainees.

The above provisions must be adhered to. LTFT 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.

EC Directive 2005/36/EC states that there is no longer a minimum time requirement on training for LTFT trainees. In the past, less than full time trainees were required to work a minimum of 50% of full time. With competence-based training, in order to retain competence, in addition to acquiring new skills, less than full time trainees would still normally be expected to work a minimum of 50% of full time. If you are returning or converting to training at less than full time please complete the LTFT application form on the JRCPTB website www.jrcptb.org.uk .

Funding for LTFT is from deaneries and these posts are not supernumerary. Ideally therefore 2 LTFT trainees should share one post to provide appropriate service cover.

Less than full time trainees should assume that their clinical training will be of a duration pro-rata with the time indicated/recommended, but this should be reviewed during annual appraisal by their TPD and chair of STC and Deanery Associate Dean for LTFT training. As long as the statutory European Minimum Training Time (if relevant), has been exceeded, then indicative training times as stated in curricula may be adjusted in line with the achievement of all stated competencies**.**

2.7 Dual CCT

Trainees who wish to achieve a CCT in Medical Oncology and another specialty must have applied for and successfully entered a training programme which was advertised openly as a dual training programme. Trainees will need to achieve the competencies, with assessment evidence, as described in both specialty curricula. Individual assessments may provide evidence towards competencies from both curricula. Postgraduate Deans wishing to advertise such programmes should ensure that they meet the requirements of both SACs.

3 Content of learning

3.1 Good Medical Practice

Good medical practice is the GMC's core guidance for doctors. It sets out the values and principles on which good practice is founded.

The guidance is divided into the following four domains:

1. Knowledge, skills and performance
2. Safety and quality
3. Communication, partnership and teamwork
4. Maintaining trust

Good medical practice is supported by a range of explanatory guidance. The 'GMP' column in the syllabus defines which of the four domains of Good Medical Practice are addressed by each competency.

4 Learning and Teaching

4.1 The training programme

The organisation and delivery of postgraduate training is the statutory responsibility of the General Medical Council (GMC) which devolves responsibility for the local organisation and delivery of training to the deaneries. Each deanery oversees a "School of Medicine" which is made up of the regional Specialty Training Committees (STCs) in each medical specialty. Responsibility for the organisation and delivery of specialty training in Medical Oncology in each deanery is, therefore, the remit of the regional Medical Oncology STC. Each STC has a Training Programme Director who coordinates the training programme in the specialty.

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 entire curriculum is covered and also that unnecessary duplication and educationally unrewarding experiences are avoided. However, the sequence of training should ideally be flexible enough to allow the trainee to develop a special interest.

What are the site-specific tumour types?
Each trainee will spend a period of time attached to a team that will have a specialist interest and furthermore, clinical attachments may be completed in a random order within a training programme or rotation. To achieve a Certificate of Completed Training (CCT) all required tumour types must have been assessed and the trainee certified as competent by a supervisor. By adopting a modular approach there is a different weighting of importance to each of the tumour types. These are:

Essential tumour types – all required for minimum 6 months WTE (Whole-Time Equivalent)
- Breast cancer
- Colorectal and anal cancer
- Lung cancer and thoracic malignancies
- Upper GI cancer and Hepatobiliary (oesophagus, gastric, liver, biliary, pancreas and neuroendocrine tumours)
- Intensive therapies (see below)

Essential tumour types – all required for minimum 4 months WTE
- Urological cancers (renal, bladder, prostate)
- Gynaecological cancer
- Skin (melanoma)

Intensive therapies – 6 months WTE made up from any combination of the following:
- Leukaemia
- Multiple myeloma
- Lymphoma
- Germ cell tumours
- Sarcoma (intensive therapies)
- High dose chemotherapy and bone-marrow transplantation

Optional tumour types:

- Immunosuppression-associated malignancies
- Head & neck cancer
- Central nervous system cancer
- Endocrine system tumours

How much time do trainees spend in each tumour type?
Firstly, it is important to emphasise that each tumour type may not necessarily correlate with a training post and sometimes posts are combined. For example, a trainee in a post that offers simultaneous training in lung and breast cancer will be required to undertake 12 months training in that post during their entire training programme (not necessarily continuous). All required tumour types must be completed to the defined level of competence.

Each trainee should spend the equivalent of 6 months full-time training in the essential tumour types. This will total 42 months of full-time training. The time in training is based upon satisfactory assessment of outcome by a supervisor. The remaining 6 months allows trainees flexibility to develop their experience in a particular area before CCT.

It is essential that trainees achieve competency in the required outcomes upon completion of a tumour type. For some trainees, they may be required to undertake additional periods of training to address identified deficiencies and to achieve competency.

What about time spent in a cancer unit?
Not all training programmes will be able to provide experience in a cancer unit, therefore this requirement is not mandatory but is strongly advised, particularly as most future consultant posts will incorporate time at a cancer unit and therefore, experience in such a setting is considered highly desirable but not mandatory.. The training provided at a cancer unit must include all of the features outlined in the section about full-time equivalent, as above.

What does this curriculum mean for a training rotation?
The curriculum defines the learning objectives and assessment methods for the knowledge, skills and behaviour required in each syllabus module. The choice of teaching or learning method will depend on the resources and facilities available within a specific hospital and the specific needs of the individual. By defining the objective, it is the outcome that is defined and not the method by which the trainee reaches their target.

A training programme is a combination of defined posts in order to deliver the learning objectives of the curriculum. This curriculum adopts a modular approach and these can be completed in any order and this provides flexibility for the rotation.

What about the optional tumour types?
The optional tumour types are designed to give experience in a range of malignancies, where some of the skills learnt can be extrapolated to other situations. These opportunities can be undertaken at the same time as the essential tumour types outlined above. In some centres, trainees may wish to formally rotate with trainees in Clinical Oncology or Haematology.

What does this mean for the rotation?
Some trainees may spend 42 months rotating through all the essential tumour types and then have 6 months remaining to complete the optional tumour types, possibly on attachment to Clinical Oncology or Haematology. Another trainee may complete 42 months of training which not only includes the essential but also the optional tumour types, as these can be double counted at the same time as the essential. This trainee will have completed their clinical modules in 42 months and can spend the remaining 6 months on targeted training, where they spend more time in an area in which they hope to specialise. Each of the tumour types will have been assessed by the end of the rotation, but will only be assessed when on attachment to an appropriate firm.

What about the longitudinal modules?
There are a number of other learning objectives that will be delivered continuously throughout the training programme. These are classified into a number of domains which are:

- Medical Leadership and Management
- Clinical Research, Ethics and Economics
- Scientific basis of malignancy
- Systemic anticancer therapies
- Acute Oncology
- Supportive Therapies and Palliative Care

Each of these domains should be assessed during the training programme and progress recorded every 6 months. Some aspects may carry more weighting than others and may required targeted training for some trainees. For example, if a trainee does not have adequate knowledge of the structure of the NHS in their first year of training, this is recorded in their training record, but just requires to be covered at a later date. If however, a trainee was identified as having deficiencies in their prescribing skills, this may require more immediate action to resolve the deficiencies. Therefore each of the longitudinal modules should be assessed every 6 months throughout the training period and personal targets for training identified to carry forwards into the next part of the training programme.

How rotations should be organised?
The curriculum is meant to introduce flexibility. To this end it does not matter in which order trainees complete their learning objectives, only that each is assessed and competency recorded in the e-portfolio. Therefore the training programme director should ensure that each objective is delivered and that appropriate methods for teaching and assessment are in place. Each trainee will require regular appraisal and this may be undertaken by the programme director or by individual educational supervisors.

Overall, the curriculum is designed to provide specialist training in both breadth and depth. Over the training period, individuals will gain breadth, by experience in a range of clinical tumour types. During each tumour type, there should also be a focus on the delivery of longitudinal learning objectives, which include experience in research, clinical trials, chemotherapy, acute oncology etc. The overall aim of a training programme is to produce specialists that have the required skills and competencies to provide a workforce that can adapt to changes in manpower and to deliver cancer treatments to the highest standards. The training programme must therefore concentrate on quality and not just quantity of training.

Acting up as a consultant (AUC)
"Acting up" provides doctors in training coming towards the end of their training with the experience of navigating the transition from junior doctor to consultant while maintaining an element of supervision.

Although acting up often fulfills a genuine service requirement, it is not the same as being a locum consultant. Doctors in training acting up will be carrying out a consultant's tasks but with the understanding that they will have a named supervisor at the hosting hospital and that the designated supervisor will always be available for support, including out of hours or during on-call work. Doctors in training will need to follow the rules laid down by the Deanery / LETB within which they work and also follow the JRCPTB rules which can be found on the JRCPTB website www.jrcptb.org.uk.

4.2 Teaching and learning methods

The curriculum will be delivered through a variety of learning experiences. Trainees will learn from practice, clinical skills appropriate to their level of training and to their attachment within the department.

Trainees will achieve the competencies described in the curriculum through a variety of learning methods. There will be a balance of different modes of learning from formal teaching programmes to experiential learning 'on the job'. The proportion of time allocated to different learning methods may vary depending on the nature of the attachment within a rotation.

This section identifies the types of situations in which a trainee will learn.

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. Examination preparation encourages the formation of self-help groups and learning sets.

Work-based Experiential Learning - The content of work-based experiential learning is decided by the local faculty for education but includes active participation in:

- Medical clinics including specialty clinics. After initial induction, trainees will review patients in outpatient clinics, under direct supervision. The degree of responsibility taken by the trainee will increase as competency increases. As experience and clinical competence increase trainees will assess 'new' and 'review' patients and present their findings to their clinical supervisor.
- Specialty-specific takes
- Post-take consultant ward-rounds
- Personal ward rounds and provision of ongoing clinical care on specialist medical ward attachments. Every patient seen, on the ward or in out-patients, provides a learning opportunity, which will be enhanced by following the patient through the course of their illness: the experience of the evolution of patients' problems over time is a critical part both of the diagnostic process as well as management. Patients seen should provide the basis for critical reading and reflection of clinical problems.
- Consultant-led ward rounds. Every time a trainee observes another doctor, consultant or fellow trainee, seeing a patient or their relatives there is an opportunity for learning. Ward rounds, including those post-take, should be led by a consultant and include feedback on clinical and decision-making skills.
- Multi-disciplinary team meetings. There are many situations where clinical problems are discussed with clinicians in other disciplines. These provide excellent opportunities for observation of clinical reasoning.

Trainees have supervised responsibility for the care of in-patients. This includes day-to-day review of clinical conditions, note keeping, and the initial management of the acutely ill patient with referral to and liaison with clinical colleagues as necessary. The degree of responsibility taken by the trainee will increase as competency increases. There should be appropriate levels of clinical supervision throughout training with increasing clinical independence and responsibility as learning outcomes are achieved (see Section 5: Feedback and Supervision).

Formal Postgraduate Teaching – The content of these sessions are determined by the local faculty of medical education and will be based on the curriculum. There are many opportunities throughout the year for formal teaching in the local postgraduate teaching sessions and at regional, national and international meetings. Many of these are organised by the Royal Colleges of Physicians.

Suggested activities include:

- A programme of formal bleep-free regular teaching sessions to cohorts of trainees (e.g. a weekly core training hour of teaching within a Trust)
- Case presentations

- Journal clubs
- Research and audit projects
- Lectures and small group teaching
- Grand Rounds
- Clinical skills demonstrations and teaching
- Critical appraisal and evidence based medicine and journal clubs
- Joint specialty meetings
- Attendance at training programmes organised on a deanery or regional basis, which are designed to cover aspects of the training programme outlined in this curriculum.

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
- Maintenance of personal portfolio (self-assessment, reflective learning, personal development plan)
- Audit and research projects
- Reading journals
- Achieving personal learning goals beyond the essential, core curriculum

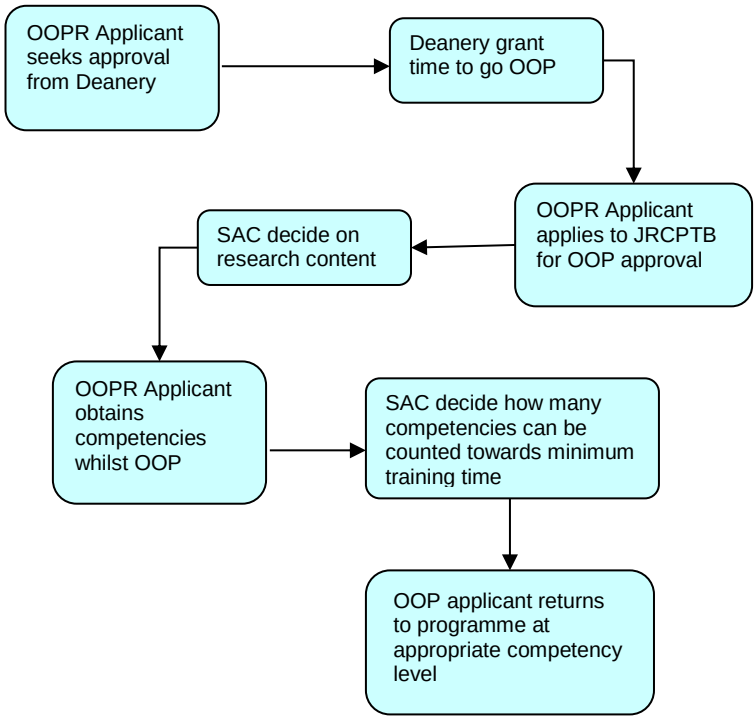
Formal Study Courses -. The training programme should deliver the learning outcomes of the curriculum, but how this is achieved is to be determined by the Training Programme Director for each rotation. For example, learning can be delivered by an internal course or by attendance at a more formal study course, such as modules on an MSc, management courses and communication skills courses. A course is one approach to achieving curriculum objectives and trainees should discuss with their educational supervisors what is best for them as an individual.

4.3 Research

Trainees who wish to acquire research competencies, in addition to those specified in their specialty curriculum, may undertake a research project as an ideal way of obtaining those competencies. For those in specialty training, one option to be considered is that of taking time out of programme to complete a specified project or research degree. Applications to research bodies, the deanery (via an OOPR form) and the JRCPTB (via a Research Application Form) are necessary steps, which are the responsibility of the trainee. The JRCPTB Research Application Form can be accessed via the JRCPTB website. It requires an estimate of the competencies that will be achieved and, once completed, it should be returned to JRCPTB together with a job description and an up to date CV. The JRCPTB will submit applications to the relevant SACs for review of the research content including an indicative assessment of the amount of clinical credit (competence acquisition) which might be achieved. This is likely to be influenced by the nature of the research (e.g. entirely laboratory-based or strong clinical commitment), as well as duration (e.g. 12 month Masters, 2-year MD, 3-Year PhD). On approval by the SAC, the JRCPTB will advise the trainee and the deanery of the decision. The deanery will make an application to the GMC for approval of the out of programme research. All applications for out of programme research must be prospectively approved.

Upon completion of the research period the competencies achieved will be agreed by the OOP Supervisor, Educational Supervisor and communicated to the SAC, accessing the facilities available on the JRCPTB ePortfolio. The competencies achieved will determine the trainee's position on return to programme; for example if an ST3 trainee obtains all ST4 competencies then 12 months will be recognised towards the minimum training time and the trainee will return to the programme at ST5. This would be corroborated by the subsequent ARCP.

This process is shown in the diagram below:



Funding will need to be identified for the duration of the research period. Trainees need not count research experience or its clinical component towards a CCT programme but must decide whether or not they wish it to be counted on application to the deanery and the JRCPTB.

A maximum period of 3 years out of programme is allowed and the SACs will recognise up to 12 months towards the minimum training times.

4.4 Academic Training

For those contemplating an academic career path, there are now well-defined posts at all levels in the Integrated Academic Training Pathway (IATP) involving the National Institute for Health Research (NIHR) and the Academy of Medical Sciences (AMS). For full details see http://www.nccrcd.nhs.uk/intetacatrain and http://www.academicmedicine.ac.uk/uploads/A-pocket-guide.pdf. Academic trainees may wish to focus on education or research and are united by the target of a consultant-level post in a university and/or teaching hospital, typically starting as a senior lecturer and aiming to progress to readership and professor. A postgraduate degree will usually be essential (see “out of programme experience”) and academic mentorship is advised (see section 6.1). Academic competencies have been defined by the JRCPTB in association with AMS and the Colleges and modes of assessment have been incorporated in the latest edition of the Gold Guide (section 7, see http://specialtytraining.hee.nhs.uk/files/2013/10/Gold-Guide-6th-Edition-February-2016.pdf).

Academic integrated pathways to CCT are a) considered fulltime CCTs as the default position and b) are run through in nature. The academic programmes are CCT programmes and the indicative time academic trainees to achieve the CCT is the same as the time set for non-academic trainees. If a trainee fails to achieve all the required competencies within the notional time period for the programme, this would be considered at the ARCP, and recommendations to allow completion of clinical training would be made (assuming other progress to be satisfactory). An academic trainee working in an entirely laboratory-based project would be likely to require additional clinical training, whereas a trainee whose project is strongly clinically oriented may complete within the “normal” time (see the guidelines for monitoring training and progress) http://www.academicmedicine.ac.uk/careersacademicmedicine.aspx. Extension of a CCT date will be in proportion depending upon the nature of the research and will ensure full capture of the specialty outcomes set down by the Royal College and approved by GMC.

All applications for research must be prospectively approved by the SAC and the regulator, see www.jrcptb.org.uk for details of the process.

5 Assessment

5.1 The assessment system

The purpose of the assessment system is to:

- enhance learning by providing formative assessment, enabling trainees to receive immediate feedback, measure 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;
- provide robust, summative evidence that trainees are meeting the curriculum standards during the training programme;
- ensure trainees are acquiring competencies within the domains of Good Medical Practice*;*
- assess trainees' actual performance in the workplace;
- ensure that trainees possess the essential underlying knowledge required for their specialty;
- inform the Annual Review of Competence Progression (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.

The integrated assessment system comprises of workplace-based assessments and knowledge – based assessments. Individual assessment methods are described in more detail below. Workplace-based assessments will take place throughout the training programme to allow trainees to continually gather evidence of learning and to provide trainees with formative feedback. They are not individually summative but overall outcomes from a number of such assessments provide evidence for summative decision making. 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.

5.2 Assessment Blueprint

In the syllabus (10) the "Assessment Methods" shown are those that are appropriate as **possible** methods that could be used to assess each competency. It is not expected that all competencies will be assessed and that where they are assessed not every method will be used.

5.3 Assessment methods

The following assessment methods are used in the integrated assessment system:

Examinations and certificates

- The Specialty Certificate Examination in Medical Oncology (SCE)

The Federation of Royal Colleges of Physicians of the UK, in association with the Association of Cancer Physicians has developed a Specialty Certificate Examination. The aim of this national assessment is to assess a trainee's knowledge and understanding of the clinical sciences relevant to specialist medical practice and of common or important disorders to a level appropriate for a newly appointed consultant. The Specialty Certificate Examination is a prerequisite for attainment of the CCT.

Information about the SCE, including guidance for candidates, is available on the MRCP(UK) website www.mrcpuk.org

Workplace-based assessments WPBAs

- Multi-Source Feedback (MSF)

- Multiple Consultant Report (MCR)
- mini-Clinical Evaluation Exercise (mini-CEX)
- Direct Observation of Procedural Skills (DOPS)
- Case-Based Discussion (CbD)
- Patient Survey (PS)
- Quality Improvement Project Assessment Tool (QIPAT)
- Audit Assessment (AA)
- Teaching Observation (TO)

These methods are described briefly below. More information about these methods including guidance for trainees and assessors is available in the ePortfolio and on the JRCPTB website www.jrcptb.org.uk. Workplace-based assessments should be recorded in the trainee's ePortfolio. The workplace-based assessment methods include feedback opportunities as an integral part of the assessment process, this is explained in the guidance notes provided for the techniques.

Multisource 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 objective 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, administration staff, and other allied professionals. The trainee will not see the individual responses by raters, feedback is given to the trainee by the Educational Supervisor.

Multiple Consultant Report (MCR)
The Multiple Consultant Report (MCR) captures the views of consultant supervisors on a trainee's clinical performance. The MCR year summary sheet summarises the feedback received, outcomes for clinical areas and comments which will give valuable insight to how well the trainee is performing, highlighting areas of excellence and areas of support required. MCR feedback will be available to the trainee and included in the educational supervisor's report.

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 Procedural Skills (DOPS)
A DOPS is an assessment tool designed to assess the performance of a trainee in undertaking a practical procedure, against a structured checklist. The trainee receives immediate feedback to identify strengths and areas for development.

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 include discussion about a written record (such as written case notes, out-patient letter, discharge summary). A typical encounter might be when presenting newly referred patients in the out-patient department.

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 Medical Take. Any doctor who has been responsible for the supervision of the Acute Medical Take can be the assessor for an ACAT.

Patient Survey (PS)
Patient Survey address issues, including behaviour of the doctor and effectiveness of the consultation, which are important to patients. It is intended to assess the trainee's performance in

areas such as interpersonal skills, communication skills and professionalism by concentrating solely on their performance during one consultation.

Quality Improvement Project Assessment Tool (QIPAT)
The Quality Improvement Project Assessment tool is designed to assess a trainee's competence in completing a quality improvement project. The Quality Improvement Project Assessment 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.

Audit Assessment Tool (AA)
The Audit Assessment Tool is designed to assess a trainee's competence in completing an audit. The Audit Assessment can be based on review of audit documentation OR on a presentation of the audit at a meeting. If possible the trainee should be assessed on the same audit by more than one assessor.

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

5.4 Decisions on progress (ARCP)

The Annual Review of Competence Progression (ARCP) is the formal method by which a trainee's progression through her/his training programme is monitored and recorded. ARCP is not an assessment – it is the review of evidence of training and assessment. The ARCP process is described in A Reference Guide for Postgraduate Specialty Training in the UK (the "Gold Guide" – available from specialtytraining.hee.nhs.uk). Deaneries are responsible for organising and conducting ARCPs. The evidence to be reviewed by ARCP panels should be collected in the trainee's ePortfolio.

The ARCP Decision Aid is included in section 5.5, giving details of the evidence required of trainees for submission to the ARCP panels.

5.5 Medical Oncology ARCP Decision Aid

The ARCP decision aid documents the targets to be achieved for satisfactory ARCP outcome at the end of each training level for trainees on the 2017 Medical Oncology curriculum. The most current version will be available on the JRCPTB website (www.jrcptb.org.uk)

- The ePortfolio curriculum record should be used to present evidence in an organised way to enable the educational supervisor and the ARCP panel to determine whether satisfactory progress with training is being made to proceed to the next phase of training.

- Evidence that may be linked to the competencies listed on the ePortfolio curriculum record include supervised learning events (SLEs) and other work place assessments (WPBAs), personal development plans (PDPs), reflective practice, audit or quality improvement projects, reports, feedback on teaching delivered and examination pass communications.

- A summary of clinical activities and teaching attendance can be recorded using the form available in the assessment section of the ePortfolio. A template is available for recording a logbook of procedures and outpatient clinics but is not mandatory.

- An educational supervisor report covering the whole training year is required before the ARCP. The ES will receive feedback on a trainee's clinical performance from other clinicians via the multiple consultant report (MCR) and multi-source feedback report (MSF).

- Great emphasis is placed on the ES confirming that satisfactory progress in the curriculum is being made compared to the level expected of a trainee at that stage of their training. This report should bring to the attention of the panel events that are causing concern e.g. patient safety issues, professional behaviour issues, poor performance in work-place based assessments, poor MSF report and issues reported by other clinicians. It is expected that serious events would trigger a deanery review even if an ARCP was not due.

- For each site-specific tumour type, trainees should consider all the outcomes outlined in section 1. Professional skills. Progression from one year to the next should be made with awareness of the outcomes in this section that have not been met and these should form the targets for training the following year.

- It is important to consider that these requirements are the minimum and for some trainees the ES or TPD/ARCP panel may recommend that additional assessment is undertaken and documented in the e-portfolio.

- To achieve CCT, ALL outcomes in the curriculum must be met by the end of ST6.

	ST3	ST4	ST5 (=PYA)	ST6 (=CCT)
Site-Specific Tumour Type	2 mini-CEX satisfactorily completed (1 in each 6 month post), to include history taking from a new patient, clinical examination, patient counselling and education 2 CbD satisfactorily completed (1 in each 6 month post), to include review of presenting features, diagnostic reasoning, planning investigations, interpretation of clinical data and planning treatment or end of life care The CbD should be for different cases to the mini-CEX	2 mini-CEX satisfactorily completed (1 in each 6 month post), to include history taking from a new patient, clinical examination, patient counselling and education 2 CbD satisfactorily completed (1 in each 6 month post), to include review of presenting features, diagnostic reasoning, planning investigations, interpretation of clinical data and planning treatment or end of life care The CbD should be for different cases to the mini-CEX	2 mini-CEX satisfactorily completed (1 in each 6 month post), to include history taking from a new patient, clinical examination, patient counselling and education 2 CbD satisfactorily completed (1 in each 6 month post), to include review of presenting features, diagnostic reasoning, planning investigations, interpretation of clinical data and planning treatment or end of life care The CbD should be for different cases to the mini-CEX	2 mini-CEX satisfactorily completed (1 in each 6 month post), to include history taking from a new patient, clinical examination, patient counselling and education 2 CbD satisfactorily completed (1 in each 6 month post), to include review of presenting features, diagnostic reasoning, planning investigations, interpretation of clinical data and planning treatment or end of life care The CbD should be for different cases to the mini-CEX
Acute Oncology and Supportive Therapies	1 mini-CEX satisfactorily completed, to include elements of the management of acute toxicity, disease complication, oncological emergency, pain management 1 CbD satisfactorily completed, to include review of presenting features, diagnostic reasoning, planning investigations, interpretation of clinical data and planning treatment	1 mini-CEX satisfactorily completed, to include elements of the management of acute toxicity, disease complication, oncological emergency, pain management 1 CbD satisfactorily completed, to include review of presenting features, diagnostic reasoning, planning investigations, interpretation of clinical data and planning treatment	1 mini-CEX satisfactorily completed, to include elements of the management of acute toxicity, disease complication, oncological emergency, pain management 1 CbD satisfactorily completed, to include review of presenting features, diagnostic reasoning, planning investigations, interpretation of clinical data and planning treatment	1 mini-CEX satisfactorily completed, to include elements of the management of acute toxicity, disease complication, oncological emergency, pain management 1 CbD satisfactorily completed, to include review of presenting features, diagnostic reasoning, planning investigations, interpretation of clinical data and planning treatment

	ST3	ST4	ST5 (=PYA)	ST6 (=CCT)
	The CbD should be for a different case to the mini-CEX	The CbD should be for a different case to the mini-CEX	The CbD should be for a different case to the mini-CEX	The CbD should be for a different case to the mini-CEX
Systemic Anticancer Therapy Prescribing	1 mini-CEX satisfactorily completed, to include treatment choice discussion with patient, review of chemotherapy prescription, obtaining consent and review of toxicity and response 1 CbD satisfactorily completed, to include review of dose alteration for toxicity, age, co-morbidity, system impairment or adverse reaction The CbD should be for a different case to the mini-CEX Supervisors report documenting Level 4 competence in chemotherapy prescribing	1 mini-CEX satisfactorily completed, to include treatment choice discussion with patient, review of chemotherapy prescription, obtaining consent and review of toxicity and response 1 CbD satisfactorily completed, to include review of dose alteration for toxicity, age, co-morbidity, system impairment or adverse reaction The CbD should be for a different case to the mini-CEX Supervisors report documenting Level 4 competence in chemotherapy prescribing	1 mini-CEX satisfactorily completed, to include treatment choice discussion with patient, review of chemotherapy prescription, obtaining consent and review of toxicity and response 1 CbD satisfactorily completed, to include review of dose alteration for toxicity, age, co-morbidity, system impairment or adverse reaction The CbD should be for a different case to the mini-CEX Supervisors report documenting Level 4 competence in chemotherapy prescribing	1 mini-CEX satisfactorily completed, to include treatment choice discussion with patient, review of chemotherapy prescription, obtaining consent and review of toxicity and response 1 CbD satisfactorily completed, to include review of dose alteration for toxicity, age, co-morbidity, system impairment or adverse reaction The CbD should be for a different case to the mini-CEX Supervisors report documenting Level 5 competence in chemotherapy prescribing
Specialty Certificate Examination				Specialty Certificate Examination (SCE) passed in order to obtain CCT
MSF	1 satisfactorily completed with documented discussion in educational supervisors report		1 satisfactorily completed with documented discussion in educational supervisors report	
Patient Survey		1 satisfactorily completed		1 satisfactorily completed
MDT participation	Personal reflections on contributions to MDT meetings, such as; preparation, referral, presenting, educational benefit	Personal reflections on contributions to MDT meetings, such as; preparation, referral, presenting, educational benefit	Personal reflections on contributions to MDT meetings, such as; preparation, referral, presenting, educational benefit	Personal reflections on contributions to MDT meetings, such as; preparation, referral, presenting, educational

	ST3	ST4	ST5 (=PYA)	ST6 (=CCT)
	and inter-professional difficulties	and inter-professional difficulties	and inter-professional difficulties	benefit and inter-professional difficulties
Audit / Quality Improvement	1 audit or QI project satisfactorily completed Personal reflections relating to the audit or QIP such as; design, implementation, analysis, presentation of results and service development or guidelines that could result from the audit or QIP	1 audit or QI project satisfactorily completed Personal reflections relating to the audit or QIP such as; design, implementation, analysis, presentation of results and service development or guidelines that could result from the audit or QIP	1 audit or QI project satisfactorily completed Personal reflections relating to the audit or QIP such as; design, implementation, analysis, presentation of results and service development or guidelines that could result from the audit or QIP	1 audit or QI project satisfactorily completed Personal reflections relating to the audit or QIP such as; design, implementation, analysis, presentation of results and service development or guidelines that could result from the audit or QIP
Teaching observation	1 satisfactorily completed teaching evaluation Personal reflections on teaching such as; content development, delivery of teaching, evaluation or assessment, identifying areas of personal development and future targets	1 satisfactorily completed teaching evaluation Personal reflections on teaching such as; content development, delivery of teaching, evaluation or assessment, identifying areas of personal development and future targets	1 satisfactorily completed teaching evaluation Personal reflections on teaching such as; content development, delivery of teaching, evaluation or assessment, identifying areas of personal development and future targets	1 satisfactorily completed teaching evaluation Personal reflections on teaching such as; content development, delivery of teaching, evaluation or assessment, identifying areas of personal development and future targets
Clinical Research, Ethics and Economics	GCP training completed or maintained satisfactorily Personal reflections on contribution to clinical research, such as; recruitment, trial management, data analysis, presentation of data or project planning	GCP training completed or maintained satisfactorily Personal reflections on contribution to clinical research, such as; recruitment, trial management, data analysis, presentation of data or project planning	GCP training completed or maintained satisfactorily Personal reflections on contribution to clinical research, such as; recruitment, trial management, data analysis, presentation of data or project planning	GCP training completed or maintained satisfactorily Personal reflections on contribution to clinical research, such as; recruitment, trial management, data analysis, presentation of data or project planning
Multiple Consultant reports	4-6	4-6	4-6	4-6
Educational Supervisor's Report	Satisfactory – to include summary of MCR and any resulting action or targets for future training	Satisfactory – to include summary of MCR and any resulting action or targets for future training	Satisfactory – to include summary of MCR and any resulting action or targets for future training	Satisfactory – to include summary of MCR

	ST3	ST4	ST5 (=PYA)	ST6 (=CCT)
Medical Leadership, Management and Governance	Personal reflections relating to leadership and management such as; rota management; staff induction, departmental meetings	Personal reflections relating to leadership and management such as; rota management; staff induction, departmental meetings	Personal reflections relating to leadership and management such as; rota management; staff induction, departmental meetings, network meetings, tumour specific group activities, shadowing senior managers, recruitment, involvement in business cases, risk management, governance	Personal reflections relating to leadership and management such as; rota management; staff induction, departmental meetings, network meetings, tumour specific group activities, shadowing senior managers, recruitment, involvement in business cases, risk management, governance Portfolio evidence of completed management training at local level (e.g. Trust or Deanery)
Reflections on Practice	Trainees should record personal reflections on issues such as; difficult conversations, difficult or complex management decisions, critical incidents or other such matters, and identify the learning points and action points for personal development	Trainees should record personal reflections on issues such as; difficult conversations, difficult or complex management decisions, critical incidents or other such matters, and identify the learning points and action points for personal development	Trainees should record personal reflections on issues such as; difficult conversations, difficult or complex management decisions, critical incidents or other such matters, and identify the learning points and action points for personal development	Trainees should record personal reflections on issues such as; difficult conversations, difficult or complex management decisions, critical incidents or other such matters, and identify the learning points and action points for personal development

5.6 Penultimate Year Assessment (PYA)

The penultimate ARCP prior to the anticipated CCT date will include an external assessor from outside the training programme. JRCPTB and the deanery will coordinate the appointment of this assessor. This is known as “PYA”. Whilst the ARCP will be a review of evidence, it is considered good practice for the PYA to include a face to face component. .

5.7 Complaints and Appeals

The MRCP(UK) office has complaints procedures and appeals regulations documented in its website which apply to all examinations run by the Royal Colleges of Physicians including the Specialist Certificate Exams.

All WPBA method outcomes must be used to provide feedback to the trainee on the effectiveness of the education and training where consent from all interested parties has been given. If a trainee has a complaint about the outcome from a specific assessment this is their first opportunity to raise it.

Appeals against decisions concerning in-year assessments will be handled at deanery level and deaneries are responsible for setting up and reviewing suitable processes. If a formal complaint about assessment is to be pursued this should be referred in the first instance to the chair of the Specialty Training Committee who is accountable to the regional deanery. Continuing concerns should be referred to the Associate Dean.

6 Supervision and feedback

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 personally discuss all cases if required. As training progresses the trainee should have the opportunity for increasing autonomy, consistent with safe and effective care for the patient.

Trainees will at all times have a named Educational Supervisor and Clinical Supervisor, responsible for overseeing their education. Depending on local arrangements these roles may be combined into a single role of Educational Supervisor.

The responsibilities of supervisors have been defined by GMC in the document “Operational Guide for the GMC Quality Framework”. These definitions have been agreed with the National Association of Clinical Tutors, the Academy of Medical Royal Colleges and the Gold Guide team working within the Conference of Postgraduate Medical Deans and are reproduced below:

Educational supervisor
A trainer who is selected and appropriately trained to be responsible for the overall supervision and management of a specified trainee’s educational progress during a training placement or series of placements. The Educational Supervisor is responsible for the trainee’s Educational Agreement.

Clinical supervisor
A trainer who is selected and appropriately trained to be responsible for overseeing a specified trainee’s clinical work and providing constructive feedback during a training placement. Some training schemes appoint an Educational Supervisor for each placement. The roles of Clinical and Educational Supervisor may then be merged.

The Educational Supervisor, when meeting with the trainee, should discuss issues of clinical governance, risk management and any report of any untoward clinical incidents involving the trainee. The Educational Supervisor should be part of the clinical specialty team. Thus if the clinical directorate (clinical director) have any concerns about the performance of the trainee, or there were issues of doctor or patient safety, these would be discussed with the Educational Supervisor.

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.

Academic trainees are encouraged to identify an academic mentor, who will not usually be their research supervisor and will often be from outside their geographical area. The Academy of Medical Sciences organises one such scheme (www.acmedsci.ac.uk) but there are others and inclusion in an organised scheme is not a pre-requisite. The Medical Research Society organises annual meetings for clinician scientists in training (www.medres.org.uk) and this type of meeting provides an excellent setting for trainees to meet colleagues and share experiences.

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.

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/clinical 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 mandatory (except 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/ clinical 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.

7 Managing curriculum implementation

7.1 Intended use of curriculum by trainers and trainees

This curriculum and ePortfolio are web-based documents which are available from the Joint Royal Colleges of Physicians Training Board (JRCPTB) website www.jrcptb.org.uk.

The educational supervisors and trainers can access the up-to-date curriculum from the JRCPTB website and will be expected to use this as the basis of their discussion with trainees. 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 a portfolio. The trainee will use the curriculum to develop learning objectives and reflect on learning experiences.

7.2 Recording progress

On enrolling with JRCPTB trainees will be given access to the ePortfolio for Medical Oncology. The ePortfolio 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 ePortfolio 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 ePortfolio 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.

8 Curriculum review and updating

The specialty curriculum will be reviewed and updated with minor changes on an annual basis. The curriculum should be regarded as a fluid, living document and the SAC will ensure to respond swiftly to new clinical and service developments. In addition, the curriculum will be subject to three-yearly formal review within the SAC. This will be informed by curriculum evaluation and monitoring. The SAC will have available:

- The trainees' survey, which will include questions pertaining to their specialty (GMC to provide)
- Specialty-specific questionnaires (if applicable)
- Reports from other sources such as educational supervisors, programme directors, specialty deans, service providers and patients.
- Trainee representation on the Deanery STC and the SAC of the JRCPTB
- Informal trainee feedback during appraisal.

Evaluation will address:

- The relevance of the learning outcomes to clinical practice
- The balance of work-based and off-the-job learning
- Quality of training in individual posts
- Feasibility and appropriateness of on-the-job assessments in the course of training programmes
- Availability and quality of research opportunities
- Current training affecting the service

Evaluation will be the responsibility of the JRCPTB and GMC. These bodies must approve any significant changes to the curriculum.

Interaction with the NHS will be particularly important to understand the performance of specialists within the NHS and feedback will be required as to the continuing needs for that specialty as defined by the curriculum. It is likely that the NHS will have a view as to the balance between generalist and specialist skills, the development of generic competencies and, looking to the future, the need for additional specialist competencies and curricula. In establishing specialty issues which could have implications for training, the SAC will produce a summary report to discuss with the NHS employers and ensure that conclusions are reflected in curriculum reviews.

Trainee contribution to curriculum review will be facilitated through the involvement of trainees in local faculties of education and through informal feedback during appraisal and College meetings.

The SAC will respond rapidly to changes in service delivery. Regular review will ensure the coming together of all the stakeholders needed to deliver an up-to-date, modern specialty curriculum. The curriculum will indicate the last date of formal review monitoring and document revision.

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. Accordingly, it warmly welcomes contributors and applicants from as diverse a population as possible, and actively seeks to recruit people to all its activities regardless of race, religion, ethnic origin, disability, age, gender or sexual orientation.

LETB quality assurance will ensure that each training programme complies with the equality and diversity standards in postgraduate medical training as set by GMC.

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;
- LETBs must ensure that educational supervisors have had equality and diversity training (for example, an e learning module) every 3 years
- LETBs must ensure that any specialist participating in trainee interview/appointments committees or processes has had equality and diversity training (at least as an e module) every 3 years.
- ensuring trainees have an appropriate, confidential and supportive route to report examples of inappropriate behaviour of a discriminatory nature. LETBs 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. LETBs must also ensure contingency mechanisms are in place if trainees feel unhappy with the response or uncomfortable with the contact individual.
- monitoring of College Examinations;
- ensuring all assessments discriminate on objective and appropriate criteria and do not unfairly disadvantage trainees because of gender, ethnicity, sexual orientation or disability (other than that which would make it impossible to practise safely as a physician). All efforts shall be made to ensure the participation of people with a disability in training.

10 Syllabus

In the tables below, the “Assessment Methods” shown are those that are appropriate as **possible** methods that could be used to assess each competency. It is not expected that all competencies will be assessed and that where they are assessed not every method will be used. See section 5.2 for more details.

The Medical Leadership Competency Framework, developed by the Academy of Medical Royal Colleges and the NHS Institute for Innovation and Improvement, has informed the inclusion of leadership competencies in this curriculum. The Framework identified possible assessment methods, but in reviewing these we identified a need for more specific methods. JRCPTB and the

RCP Education Department have established a working group to develop and evaluate leadership assessment methods. These may include variants of CbD and ACAT, as well as the Case Conference Assessment Tool currently being piloted.

“GMP” defines which of the 4 domains of the Good Medical Practice Framework for Appraisal and Assessment are addressed by each competency. See section 3.1 for more details.

Syllabus Contents

1. Professional skills

1.1 History taking

Take a relevant and detailed patient history, recognising significance of presenting symptoms and the underlying heritable predisposition, epidemiology and risk factors

Knowledge	Assessment Methods	GMP
Can describe the symptoms that can manifest in a patient suspected of having cancer as a direct or indirect result of the cancer and the variation of presentation in Teenage and Young Adults (TYA) and the older patient	CbD, SCE	1
Can define the disease aetiology, relationship with risk factors and disease prevention for a patient presenting with cancer	CbD, SCE	1
Can define the epidemiological principles of demography and biological variability of individual cancers, with application to the population of the UK, including cancers that present in Teenage and Young Adults (TYA) and in the older patient	CbD, SCE	1
Can define red flag symptoms and the common life-threatening situations that can present in a patient with cancer	MCR, mini-CEX	1,2
Skills and Behaviour		
Takes a focused history that covers all relevant aspects of patient history, including identification of risk factors, and can assimilate information from other sources including family members and healthcare professionals	MCR, mini-CEX	1,3
Demonstrates precise, perceptive, comprehensive and sensitive questioning of the patient using focused and open questions that elicit the relevant and related features of the case and considers the context of the age and state of the patient and multicultural factors	CbD, MCR, mini-CEX, MSF, PS	1,3
Demonstrates appropriate communication techniques such as; eliciting the patient agenda, clarifying, information chunking, facilitation, summarising and closure. Can supplement history with standardised instruments, such as a pain chart, or questionnaires when relevant	CbD, MCR, mini-CEX	1,3,4
Listens carefully, actively and appropriately to the patient, establishes rapport and encourages and enhances mutual understanding and can identify their ideas, concerns and expectations	MCR, mini-CEX, MSF, PS	1,3,4
Identifies and overcomes barriers to effective communication; including problems with cognition, language, age-related factors, culture and religion; and can manage conflicting views from family, carers, friends and members of the multi-professional team	MCR, mini-CEX, MSF, PS	1,3
Recognises and interpret appropriately the use of non verbal communication from patients and carers	MCR, mini-CEX, MSF	1,3
Recognises and evaluates sensitively the possible influence of; socio-economic status, household poverty, employment status and social capital in taking a medical history and their impact on cancer risk, stigmatising effects of some illnesses and tolerance of treatment	CbD, MCR, mini-CEX	1,3
Recognise that effective history taking in non-urgent cases may require several discussions with the patient and other parties, over time	MCR, mini-CEX	1,3
Writes clear, legible, structured and comprehensive documentation that is dated and signed and includes all relevant communications with patients, relatives and colleagues	CbD, mini-CEX, MSF, PS	1,2,3
Can obtain a detailed pain history from a patient, including the use of pain charts and scores	MCR, mini-CEX, MSF	1,3
Always considerate, polite and thoughtful of patients and colleagues and demonstrates respect and behaves in accordance with Good Medical Practice and safeguards confidentiality	MCR, mini-CEX, MSF, PS	1,3,4

1.2 Clinical examination and interpreting clinical features

Perform accurate clinical examination of a patient with cancer, recognising diagnostic features and complications of the disease and treatment

Knowledge	Assessment Methods	GMP
Can describe the clinical signs that can manifest in a patient suspected of having cancer as a direct or indirect result of the cancer and the variation of presentation in Teenage and Young Adults (TYA) and the older patient	CbD, SCE	1
Can define the clinical features that can identify the disease aetiology, natural history, complications of the disease, procedure, investigation or complications of anticancer therapy	CbD, SCE	1
Can define the relevance of positive and negative physical signs in determining a differential diagnosis and plan of investigation	CbD, SCE	1
Can describe the constraints to performing physical examination and the need for adjunctive forms of assessment to confirm diagnosis	CbD, SCE	1
Can define when the offer or use of a chaperone is appropriate or required	CbD, MCR, mini-CEX, SCE	1,2,4
Skills and Behaviour		
Performs clinical examination of the patient that is thorough, sensitive, focused and systematic in approach that is general and systems-based, that is relevant to the presentation and performed in a timely manner	CbD, MCR, mini-CEX, MSF	1
Elicits physical signs with accuracy and precision	CbD, mini-CEX, MSF, PS	1
Undertakes clinical examination that is appropriate for age, gender and state of the patient and can demonstrate technique to others	CbD, MCR, mini-CEX, MSF	1
Elicits physical signs with accuracy and precision, with appropriate interpretation to form an appropriate differential diagnosis	CbD, MCR, mini-CEX, MSF, PS	1
Recognises the clinical features that can identify the disease aetiology, complications of the disease, non-metastatic manifestations or complications of anticancer therapy	CbD, MCR, mini-CEX, MSF	1
Recognises life-threatening clinical features and demonstrates a calm, systematic approach and appropriate outcome following emergency situations	CbD, MCR, mini-CEX, MSF	1,2
Can perform an assessment of cognitive function and mental state	CbD, MCR, mini-CEX, MSF	1,2
Demonstrates consideration of the patients age, gender, status, ethnicity, spiritual, cultural and social circumstances when undertaking physical examination and make alternative arrangements where necessary	CbD, mini-CEX, MSF, PS	1,3
Writes clear, legible, structured and comprehensive documentation that is dated and signed and includes all relevant findings on general and systemic examination	CbD, MCR	1,3
Recognise the possibility of deliberate harm (both self harm and harm by others) in vulnerable patients and report to appropriate agencies	CbD, MCR, mini-CEX	1,2,4
Always considerate, polite and thoughtful of patients and colleagues and demonstrates respect and behaves in accordance with Good Medical Practice and safeguards confidentiality	MCR, mini-CEX, MSF, PS	1,3,4

See sections 1.6 and 5.2 for related competencies when assessing patients receiving systemic anticancer therapies

1.3 Planning diagnostic, prognostic investigations and interpretation of clinical data

Formulate an appropriate plan for cost-effective diagnostic and prognostic investigations, including staging

Knowledge	Assessment Methods	GMP
Can define relative and absolute risk and how they are derived, the meaning of the terms predictive value, sensitivity and specificity in relation to diagnostic tests	SCE	1
Can define the staging system for the cancer under investigation	CbD, SCE	1
Can define the modalities of investigation to obtain a diagnosis or determine prognostic factors, including the procedures required to obtain appropriate material for investigation	CbD, SCE	1
Can define the indications, contraindications, complications and cost-benefit analysis of planned investigations	CbD, SCE	1
Can define the parameters that can influence the sensitivity, specificity, predictive value and accuracy of a test	CbD, SCE	1
Can discuss the role of immunohistochemistry and immunophenotyping on tissue and cellular samples in contributing to the diagnosis and importance of accurate histological assessment in the determination of prognosis	CbD, SCE	1
Can discuss the role of molecular diagnosis in relation to individual patients	CbD, SCE	1
Can define the role of tumour markers in the diagnosis, prognosis, and follow-up of patients	CbD, SCE	1
Can discuss the situations in which an error in the clinical data might be suspected and consider strategies to minimise such error	CbD, SCE	1,2
Can define the indications for endoscopy, surgery and imaging in the diagnosis and staging of cancer	CbD, SCE	1
Skills and Behaviour		
Generates a hypothesis within the context of clinical likelihood of a diagnosis and can test, refine and verify the diagnostic hypothesis	CbD, SCE, mini-CEX	1
Determines a plan of investigation that uses cost-effective investigations appropriate to the clinical situation and orders relevant investigations that follow local guidelines	CbD, mini-CEX, MSF	1
Determines and communicates to the patient the risk of the procedure or investigation, anticipating the likely complications and obtains appropriate informed consent	CbD, mini-CEX, MSF, PS	1,3
Interprets correctly a broad range of investigations, including laboratory-based and radiological investigations to confirm the diagnosis and stage the cancer	CbD, SCE	1
Explains the clinical reasoning behind the formulation of a differential diagnosis and plan of investigation	CbD, mini-CEX, MSF, PS	1,3
Writes clear, legible, structured and comprehensive documentation that is dated and signed and includes the plan of investigation, and outlines the relevant communications with patients, relatives and colleagues	CbD, mini-CEX, MSF, PS	1,3
Prepares the patient practically for an investigation or procedure, organises and coordinates other staff that may be involved in the test, or the care of the patient after the procedure is completed	CbD, mini-CEX, MSF, PS	1,2,3
Demonstrates an analytical and scientific approach to problem-solving and shows a range of problem-solving skills	CbD, MCR, mini-CEX, MSF	1

1.4 Germline and tumour genomics

Recommended resources:

- NHS Genetics for Healthcare www.geneticseducation.nhs.uk
- UK genetic testing network www.ukgtn.nhs.uk
- Course in Genomic Medicine www.futurelearn.com/course/the-genomics-era

Apply foundation understanding of genomics to the investigation of a patient with cancer		
Knowledge	**Assessment Methods**	**GMP**
Can define the structure, function and transmission of the genome	CbD, SCE	1
Can define the principles of gene expression and regulation through genetic and epigenetic mechanisms	CbD, SCE	1
Can define the Mendelian patterns of inheritance	CbD, SCE	1
Can describe the multi-factorial predisposition of cancer and interactions of environmental risk factors with random genetic events and low risk cancer predisposition gene variants	CbD, SCE	1
Can describe the pattern of malignancies and underlying gene mutations associated with the following high risk cancer predisposition syndromes: hereditary breast/ovarian cancer, hereditary colorectal cancer, Von Hippel–Lindau disease, Li–Fraumeni syndrome, multiple neuroendocrine neoplasia	CbD, SCE	1
Recognises that inherited cancer predisposition syndromes often require a multi-disciplinary approach to patient management including primary and secondary cancer prevention strategies	CbD, SCE	1
Can define the clinical features that may indicate an underlying inherited cancer predisposition syndrome	CbD, SCE	1
Can define the difference between germline and somatic mutations and their influence in cancer risk, development and progression	CbD, SCE	1
Can define the principles and underlying mechanisms of precision oncology and pharmacogenomics and their application to targeted therapies, particularly in the treatment of common malignancies	CbD, SCE	1
Can define the role, indications and limitations of; cytogenetic testing, single gene tests, panel gene testing, whole exome and genome sequencing, diagnostic and understand the clinical implications of a report of DNA variants of unknown significance	CbD, SCE	1
Can discuss the ethical issues associated with whole genome sequencing and management of genomic data	CbD	1,4
Can discuss national guidelines for screening of patients with a strong family history of breast or colorectal cancer but no known mutation in a high risk cancer predisposition gene	CbD, SCE	1
Can discuss national guidelines for genomic testing in patients with cancer	CbD, SCE	1
Can define the indications to seek advice from or make referral to the specialist Clinical Genetic Service	CbD, SCE	1
Skills and Behaviour		
Takes a detailed family history, recognising the clinical features that may indicate an underlying inherited cancer predisposition syndrome	CbD, mini-CEX	1,3
Estimates the genetic and cancer risk to family members of carriers of mutations in cancer predisposition genes	CbD, mini-CEX, SCE	1
Discusses value of increased screening for family members with strong	CbD, mini-CEX	1

family history of specific cancers in absence of known cancer predisposition gene mutation		
Reliably identifies patients that fulfil local criteria for germline and tumour genomic testing	CbD, mini-CEX	1
Obtains informed consent for genomic testing, outlining the potential benefits, impact and issues relating to such information	CbD, mini-CEX	1,3
Requests appropriate somatic genomic tests for new patients presenting with common malignancies e.g. breast, colorectal, ovary, lung, renal and melanoma	CbD, mini-CEX, SCE	1
Explains clearly the results of genomic testing to patients, conveying understanding and outlining the objective implications of the results, particularly the influence on subsequent therapeutic options	CbD, mini-CEX, PS	1,3
Appreciates the ethical and confidentiality issues which may arise in taking family histories and communicating results of genetic testing, including health insurance issues	CbD, mini-CEX, SCE	1,3,4
Demonstrates consideration and respect for the patient age, status, cultural and ethnic circumstances when discussing genetic issues	mini-CEX, PS	1,3,4
Demonstrates empathy and respect to patients during all communication and appreciates the physical and psychological impact of inherited cancer predisposition syndromes on patients and their families	CbD, mini-CEX, MSF, PS	1,3,4
Complies with guidelines on ethical conduct in research and consent for research	CbD, mini-CEX, MSF	1,3,4
Always considerate, polite and thoughtful of patients and colleagues and demonstrates respect and behaves in accordance with Good Medical Practice and safeguards confidentiality	MCR, mini-CEX, MSF, PS, SCE	3,4

1.5 Planning therapeutic intervention

Formulate a plan of management including anticancer therapy with consideration of the patients age, status, cultural and social circumstances		
Knowledge	**Assessment Methods**	**GMP**
Can define the indications and goals of systemic anticancer therapy in primary and metastatic cancer, including adjuvant, neoadjuvant and palliative intent treatments	CbD, SCE	1
Can define the indications for systemic anticancer therapy as a radiation sensitiser and situations in which chemoradiotherapy is indicated with curative intent in both an adjuvant and neoadjuvant setting	CbD, SCE	1
Can define the mechanisms of intrinsic and acquired drug resistance and possible strategies for its circumvention	CbD, SCE	1
Can define the role of dose-dense therapy and dose intensification, and indications, complications and adverse effects of such therapy	CbD, SCE	1
Can discuss the appropriate therapeutic management, including pharmacological and non-pharmacological interventions for the individual patient, demonstrating understanding of the indications, interactions, adverse effects and the implications for resource management and resource limitations	CbD, SCE	1
Can define the criteria for assessing the objective response to therapy (e.g. RECIST, WHO)	CbD, SCE	1
Can define methods for assessing the performance status of the patients	CbD, SCE	1
Can define methods for assessing quality of life using measurement instruments such as; HADS, Rotterdam Symptom check list and EORTC QLQC-30	CbD, SCE	1
Can define the impact on fertility by chemotherapy and other anticancer therapies, including the indications for fertility preservation and cryopreservation of semen and the developing technology and current limitations with respect to female gamete storage	CbD, SCE	1,3,4
Can define quantitative data of risks and benefits of therapeutic intervention applied to an individual patient	CbD, SCE	1
Can discuss search strategies of the medical literature to inform reasoning and decisions about intervention	AA, CbD, SCE	1
Can discuss situations when patient care decisions may be based upon parameters other than published evidence	CbD, SCE	1
Skills and Behaviour		
Makes decisions about treatment in partnership with colleagues and patients, recognising own level of responsibility, capability and limitations, usually seeks advice when needed	CbD, mini-CEX, MSF, PS	1,3
Assesses the impact of the patients age, co-morbid medical conditions, gender, fertility, status, religious, cultural and social circumstances when determining treatment and modifies the management plan accordingly	CbD, mini-CEX, MSF, PS	1,4
Determines and communicates to the patient the risk/benefit ratio of the planned treatment, anticipating the likely complications and obtains appropriate informed consent	MCR, mini-CEX, MSF	1,2,3
Writes clear, legible, structured and comprehensive documentation that is dated and signed and includes a clear plan of management that includes anticipation of toxicity, intended outcomes and planned assessment of response	CbD, MCR, mini-CEX, MSF	1,2,3
Explains the clinical reasoning behind the plan of management and delivers clarity and understanding to the patient, with reference to	CbD, MCR, mini-CEX, MSF, PS, SCE	1,3

published evidence, where appropriate, on which the decisions are made		
Always makes the appropriate choice of treatment, dosage, schedule and method and route of delivery for the diagnosis with compliance with local and national guidelines	CbD, mini-CEX, MSF, PS	1,3
Can discuss the management plan and institute appropriate therapy within the setting of a multidisciplinary team, particularly when the treatment may fall outside of local or national guidelines	CbD, mini-CEX, MSF	1,3
Takes responsibility, makes decisions or takes well-judged risks and exerts authority when appropriate	CbD, MCR, mini-CEX, MSF, PS	1
Recognises the need to determine the best value and most effective treatment both for the individual patient and for a patient cohort	CbD, MCR, mini-CEX	1,2
Willing to adapt and adjust approaches according to the beliefs and preferences of the patient and/or carers	CbD, MCR, mini-CEX	3,4
Respects patient autonomy and willing to facilitate patient choice	CbD, MCR, mini-CEX	3,4
Always considerate of the patients age, gender, status, ethnicity, spiritual, cultural and social circumstances when determining treatment, particularly for Teenager and Young Adults and the older patient	MSF, MCR, mini-CEX, MSF, PS	1,4
See sections 1.6 and 5.2 for related competencies when assessing patients receiving systemic anticancer therapies		

1.6 Special considerations in TYA, older patients and pregnancy

Review and modify the plan of investigation or management based upon consideration of the patients age, co-morbidity or special situations such as pregnancy		
Knowledge	**Assessment Methods**	**GMP**
Can define the cancers that may be paediatric with late onset or adult with early onset and those that can occur at any age	CbD, SCE	1
Can define the late toxicity related to a planned treatment in adolescents	CbD, SCE	1
Can define the impact of age, gender, pregnancy and co-morbidity on the epidemiology and clinical presentation of cancers in such patients	CbD, SCE	1
Can define the impact of age, gender, pregnancy and co-morbidity on the pitfalls or barriers to investigation and diagnosis of cancer in such patients	CbD, SCE	1
Can define the impact of age, gender, pregnancy and co-morbidity on the pharmacokinetics, drug-drug interactions, efficacy and toxicity of treatment in patients with cancer	CbD, SCE	1
Can discuss the issues of fertility preservation and contraception during cancer treatment	CbD, SCE	1
Can define the potential adverse effects of treatment in early pregnancy and neonatal risks of early delivery	CbD, SCE	1
Can define the different domains of geriatric assessment such as; social status/support, nutritional status, functional status, fatigue, co-morbidity, cognition, mental health, and geriatric syndromes such as falls, incontinence and delirium	CbD, SCE	1
Can discuss the requirement for polypharmacy evaluation and assessment of drug compliance	CbD, SCE	1
Can define the alteration in tumour biology in younger or older patients and how this may impact on therapy	CbD, SCE	1
Can define how cancer therapy can exacerbate the co-morbidity during or after completion of therapy	CbD, SCE	1
Can define the utility and limitations of tools to assess the impact of co-morbid medical conditions on outcomes in cancer patients	CbD, SCE	1
Skills and Behaviour		
Assesses the impact of age, gender, pregnancy and co-morbidity in patients presenting with cancer and adapts the plan of investigation accordingly	CbD, MCR, mini-CEX, MSF	1,2
Assesses the impact of age, gender, pregnancy and co-morbidity on the planned treatment, anticipating modifications to dose, schedule, route of delivery in order to optimise the treatment for the individual patient	CbD, MCR, mini-CEX, MSF	1,2
Performs a geriatric assessment including; social status/support, nutritional status, functional status, fatigue, co-morbidity, cognition, mental health, and risk of geriatric syndromes such as falls, incontinence and delirium	CbD, MCR, mini-CEX, MSF	1,2
Writes clear, legible, structured and comprehensive documentation that is dated and signed and includes a clear plan of management with explanation of all modifications, that includes anticipation of toxicity, intended outcomes and planned assessment of response	CbD, MCR, mini-CEX, MSF	1,2,3
Explains the clinical reasoning behind the modifications to the plan of management and delivers clarity and understanding to the patient, with reference to published evidence, where appropriate, on which the decisions are made	CbD, MCR, mini-CEX, MSF, PS, SCE	1,3

1.7 Obtaining valid consent

Obtain valid consent from a patient for a planned treatment or investigation including a clinical trial		
Knowledge	**Assessment Methods**	**GMP**
Can define the components necessary for informed consent and the GMC guidance on consent	CbD, SCE	1,3,4
Can discuss the value and limitations of promotion of autonomy in medicine	CbD, SCE	1,3,4
Can define the tests for assessing capacity to give consent	CbD, SCE	1,3,4
Can discuss the need to respect competent refusal	CbD, SCE	1,3,4
Can define the principles and implications of the Mental Capacity Act, advanced refusals, enduring power of attorney, independent mental capacity advocates	CbD, SCE	1,2,4
Can define the procedures for seeking patient consent for disclosure of information and situations where consent while desirable is not obligatory	CbD, SCE	1,3
Can discuss the problems posed by disclosure in the public interest, without patient's consent	CbD, SCE	1,3,4
Can define the legal and ethical aspects of consent for Teenage and Young Adult and older patients with impaired abilities	CbD, SCE	1
Skills and Behaviour		
Provides the patient and carers with appropriate information and time required to make an informed decision	MCR, mini-CEX, MSF, PS	1,3
Gives clear explanations and uses language effectively and appropriately	MCR, mini-CEX, MSF, PS	1,3
Provides a balanced and objective view of treatment options	MCR, mini-CEX, MSF, PS	1,3
Accurately describes the intended benefits and likely adverse effects of a planned treatment	MCR, mini-CEX, MSF, PS	1,3
Assesses a patients capacity and understands the legal and moral implications of its presence and absence and supports decision-making on behalf of those not competent to make decisions about their own care	MCR, mini-CEX, MSF, PS	3,4
Demonstrates respect for the patient's right to autonomy	MCR, mini-CEX, MSF, PS	1,3,4
Completes the consent form accurately with the patient and records the consent process in the medical record	CbD, MCR, mini-CEX	1,2,3,4
Apply the principles of the Mental Capacity Act in promoting, assessing and contextualising the patient's capacity in discerning his/her best interest	MCR, mini-CEX	1,2,3,4
Treats patients with respect and without discrimination, is polite, considerate and honest, and shows respect for dignity and privacy	MCR, mini-CEX, MSF, PS	1,3,4
Demonstrates willingness to seek advice or offer the patient a second opinion where appropriate	MCR, mini-CEX, MSF, PS	1,3,4
Follows guidelines on ethical conduct in research and consent for research	MCR, mini-CEX, MSF	1,3,4

1.8 Patient education in a structured interview

Communicate information to patients and their carers relating to the diagnosis (including breaking bad news), explaining clinical data and future plans		
Knowledge	**Assessment Methods**	**GMP**
Can define the influence of correct environment on providing patient information and education	CbD, SCE	1,3
Can discuss the importance of the patient perspective when explaining a diagnosis or treatment plan	CbD, SCE	1,3,4
Can define the influence of patient age, culture and religion on the understanding of a cancer diagnosis, impact of breaking bad news and approaches to communicating the information with clarity and understanding	CbD, SCE	1,3,4
Can define common terms as alternatives for the technical language used in the reporting of clinical data	CbD, SCE	1,3
Can discuss of local and national support groups and agencies that provide information and support to patients with cancer, including those for Teenage and Young Adult patients	CbD, SCE	1,3,4
Can discuss that every patient may desire different levels of explanation and have different responses to bad news and that how bad news is delivered irretrievably affects the subsequent relationship with the patient	CbD, SCE	1,4
Skills and Behaviour		
Selects the correct environment and setting for patient education including; setting aside sufficient uninterrupted time, chooses an appropriate private environment, provides sufficient information regarding prognosis and treatment, ensures the individual has appropriate support if desired, delivers a structured interview, is honest, factual, realistic and empathic	MCR, mini-CEX, MSF, PS	1,3,4
Assesses the needs of the patient and their expectations and to impart knowledge and patient education appropriate to the clinical situation	MCR, mini-CEX, MSF, PS	1,3,4
Gives clear explanations and uses language effectively and appropriately	MCR, mini-CEX, MSF, PS	1,3,4
Communicates clearly, honestly and using language effectively and appropriately, easily establishes rapport with the patient and encourages mutual understanding	MCR, mini-CEX, MSF, PS	1,3,4
Assesses the patients understanding of their condition and encourages questioning	MCR, mini-CEX, PS	1,3
Responds to the emotions of the patient and imparts knowledge to the patient in a sensitive and appropriate approach	MCR, mini-CEX, MSF, PS	1,3,4
Listens carefully, actively and appropriately to the patient and their concerns, ideas and expectations and checks their understanding, inspires confidence and allays the patients fears	MCR, mini-CEX, MSF, PS	1,3,4
Contributes to discussions on decisions not to resuscitate with patient, carers, family and colleagues appropriately and sensitively ensuring patients interests are paramount	CbD, MCR, mini-CEX	1,3,4
Recognises and responds appropriately to sources of information accessed by patients	MCR, mini-CEX, MSF, PS	1,3,4
Can mediate, negotiate and deal appropriately with complaints	CbD, MCR, mini-CEX, MSF, PS	1,3,4
Recognises that bad news is confidential but the patient may wish to be accompanied and involve carers in decisions regarding their future management	CbD, MCR, mini-CEX, MSF, PS	1,3,4

Recognises the impact of the bad news on the patient, carer, supporters, staff members and self and that bad news may be expected or unexpected and it cannot always be predicted	CbD, MCR, MSF	1,3,4
Responds to verbal and visual cues from patients and relatives	CbD, MCR, mini-CEX, MSF	1,3
Acts with empathy, honesty and sensitivity avoiding undue optimism or pessimism	CbD, MCR, mini-CEX, MSF	1,3
Inspires confidence and trust with the patient and allays the patients fears	MSF, PS	1,3,4
Always safeguards confidentiality and has excellent knowledge of the data protection act	CbD, mini-CEX, MSF, PS	3,4
Demonstrates empathy and respect to patients during all communication	mini-CEX, MSF, PS	1,3,4

1.9 Psychological aspects of cancer

Assess and manage the psychosocial aspects of cancer and the impact of the diagnosis on patients, their relatives and on health care professionals involved in the care of patients with cancer		
Knowledge	**Assessment Methods**	**GMP**
Can discuss the variety of coping mechanisms for patients and families within the context of the clinical diagnosis of cancer and relating to end-of-life care and death	CbD, SCE	1
Can discuss the sources of anxiety and concern and the indications and complications of using antidepressant or psychotropic medication in patients with malignancy	CbD, SCE	1
Can discuss the impact of cancer in patients with dementia or pre-existing psychological or psychiatric illness	CbD, SCE	1
Can discuss the influence of age, status, religion, culture and social circumstance on the symptoms associated with the patients diagnosis and treatment	CbD, SCE	1
Can discuss the needs and processes distinct to Teenage and Young Adult patients in relation to; physical, psychological and social development, independence and autonomy, concordance and risk-taking, education and work	CbD, SCE	1,2
Can discuss the responses and needs of children and adults with learning difficulties	CbD, SCE	1
Can define the process of grief and impact of bereavement, the preparation of carers and children for bereavement and discuss the support available for the acutely grieving individual or family	CbD, SCE	1
Can discuss the impact of cancer on role, sexuality, body image and interpersonal relationships	CbD, SCE	1
Can define the role of the psychological or psychiatric services, including the clinical psychologist	CbD, SCE	1
Can discuss approaches to deal with violent or suicidal patients and the use of compulsory treatment (Mental Health Act)	CbD, SCE	1,2,4
Can discuss the psychological impact of pain and intractable symptoms	CbD, SCE	1
Can describe responses to uncertainty and loss at different stages in the natural history of cancer as an illness	CbD, SCE	1
Skills and Behaviour		
Recognises and addresses the social, biological, environmental and spiritual determinants of health (the bio-psycho- social model or the bio-socio- psycho-existentialist model), and collaborate with other professionals and agencies to improve health and wellbeing	CbD, MCR	1,3
Determines the patient's experience of previous management, in terms of success and failure as well as physical and psychological impact	CbD, MCR, mini-CEX, MSF	1,3
Assesses the response to illness and expectations in the patient and among family members and recognises family dynamics	MCR, mini-CEX	1,3
Identifies the physical manifestations of psychological impact on an individual of a disease or therapy	CbD, mini-CEX, MSF, PS	1
Assess the patient's ability to access various services in the health and social system and offer appropriate assistance	CbD, MCR, mini-CEX	1,2,3
Empowers patients and negotiate complex systems to improve health and welfare including where appropriate the right to work	CbD, MCR, mini-CEX	1,2,3
Aware of transference and counter-transference in professional relationships with patients and family members	CbD, MCR, SCE	1,3

Manages the tensions that may arise when there are conflicts of interest between members of families and what implications this has for professional duties across multidisciplinary teams	MCR, mini-CEX, MSF, PS	1,2,3,4
Identifies and alleviates the anxieties and concerns of the patient and their relatives	CbD, mini-CEX, MSF, PS	1
Identifies the coping mechanisms within a family environment, including the influence cultural and spiritual issues	CbD, mini-CEX, MSF, PS	1,4
Assesses the impact of the diagnosis on the patient and their relatives and to provide appropriate support	CbD, mini-CEX, MSF, PS	1,4
Prescribes medication appropriate to the clinical situation	CbD, mini-CEX, MSF	1
Assesses the impact of the diagnosis on individual health care professions involved in the care of patients and the impact on the structure and functions of a team	MCR, MSF	1,3
Selects and provides appropriate support for colleagues and other staff in the work place	MCR, MSF	1,3
Can deal with situations that involve; anger and strong emotions; anxious preoccupation, transference, collusion and conspiracy of silence, denial	MCR, mini-CEX, MSF, PS	1,2,3
Identifies psychological responses as a source of additional problems for patient and family and as potentially obstructing the goals of care	CbD, MCR, mini-CEX, MSF	1,3
Be inclusive and makes people from diverse backgrounds to feel at ease in discussing sensitive or painful issues	CbD, mini-CEX, MCR, MSF	1,3,4

1.10 Surveillance, screening and survivorship

Formulate an appropriate plan for follow up, surveillance, screening and survivorship		
Knowledge	**Assessment Methods**	**GMP**
Can discuss national guidelines for population-based screening of patients, including those with a strong family history of cancer but no known mutation in a high risk cancer predisposition gene	CbD, SCE	1
Can define the sensitivity, specificity and cost-benefit and concept of bias in the interpretation of screening programmes and the limitations of investigations	CbD, SCE	1
Can define the application of well-defined screening role (e.g., PAP smear) and situations in which the role of screening is unclear or not defined (e.g., PSA, ovarian cancer)	CbD, SCE	1
Can define the risk factors that predispose to subsequent malignancy including: genetic, dietary, occupational, environmental, previous malignancy and previous therapy	CbD, SCE	1
Can define the principles of disease surveillance and screening, disease prevention (including the role of vaccination in the prevention of cancer), health promotion and the requirements to perform a health needs assessment	CbD, SCE	1
Can define the parameters that can influence the sensitivity, specificity, predictive value and accuracy of a test and determine the risks and benefits of screening or surveillance investigations	CbD, SCE	1
Can define the role of screening for cancer recurrence, second primary cancers and long-term and late adverse effects of therapy	CbD, SCE	1
Can define the clinical symptoms and signs of cancer recurrence or treatment-related side effects	CbD, SCE	1
Skills and Behaviour		
Performs a health needs assessment and actively develops measures to extend the application of such approaches to the surrounding population	MCR, mini-CEX, MSF	1
Listens carefully, actively and appropriately to the patient and their concerns, ideas and expectations and checks their understanding, inspires confidence and allays the patients fears	MCR, mini-CEX, MSF, PS	1,3
Determines and communicates to the patient the risk/benefit ratio of the planned screening or surveillance, anticipating any likely complications and obtains appropriate informed consent	MCR, mini-CEX, MSF	1,2
Assesses the impact of the patients age, co-morbid medical conditions, gender, fertility, status, religious, cultural and social circumstances when determining surveillance or screening strategies and modifies the plan accordingly	MCR, mini-CEX, MSF, PS	1,4
Explains the clinical reasoning behind the plan of screening or surveillance and delivers clarity and understanding to the patient, with reference to published evidence, where appropriate, on which the decisions are made	MCR, mini-CEX, MSF, PS, SCE	1,3
Writes clear, legible, structured and comprehensive documentation that is dated and signed and includes a clear plan of screening or surveillance	CbD, MCR, mini-CEX, MSF	1,2
Manages follow-up effectively and safely utilising a variety of methods (e.g. phone call, email, letter)	CbD, MCR, mini-CEX, MSF	1

1.11 End of life care

Recommended resources:

- End of Life Care www.e-lfh.org.uk/projects/end-of-life-care/

Work within a multi-disciplinary team to manage patients requiring palliative and end of life care and to support patients whilst facilitating End of Life choices including advance care planning		
Knowledge	**Assessment Methods**	**GMP**
Can describe different disease trajectories and prognostic indicators and the signs that a patient is dying	CbD, SCE	1
Can discuss the spectrum of professional and complementary therapies available, e.g. palliative medicine, hospice and community services, nutritional support, pain relief, psychology of dying	CbD, mini-CEX, SCE	1,3
Can define the pharmacology of major drug classes used in palliative care, including opioids, NSAIDS, agents for neuropathic pain, bisphosphonates, laxatives, anxiolytics, and antiemetic medication. Can describe common side effects of drugs commonly used	CbD, SCE	1
Can define the analgesic ladder, role of radiotherapy, surgery and other non-pharmacological treatments	CbD, SCE	1
Can define advance care planning and describe Advance Care Planning documentation and End of Life Integrated Care Pathway documentation	CbD, SCE	1
Can discuss the use of syringe drivers, including their advantages and limitations	CbD, mini-CEX, SCE	1
Can define the major cultural and religious practices relevant to the care of dying people and demonstrating ability to support patients in choices relating to these and when to refer	CbD, SCE	1
Can describe the role of the coroner and when to refer to them and discuss when a post mortem examination may be required and recognise what this involves	CbD, mini-CEX	1,3,4
Can define the local organ retrieval process and identify when this may apply in a patient that has died of cancer	CbD, SCE	1,4
Can discuss the issues arising when dealing with End of Life care in Teenage and Young Adult patients	CbD, mini-CEX, SCE	1
Skills and Behaviour		
Identifies accurately when a patient may be in the last days / weeks of life	CbD, mini-CEX	1
Takes an accurate pain history, recognising that patients may have multiple pains and causes of pain	CbD, mini-CEX	1,3
Prescribes opioids correctly and safely using appropriate routes of administration	CbD, mini-CEX	1,2
Assesses response to analgesia and recognise medication side effects or toxicity	CbD, mini-CEX	1,2
Assesses and manages other symptom control problems including nausea and vomiting, constipation, breathlessness, excess respiratory tract secretions, agitation, anxiety and depression	CbD, mini-CEX	1
Delivers effective pain relief, symptom control (including for agitation, excessive respiratory secretions, nausea & vomiting, breathlessness), spiritual, social and psychological management	MCR, mini-CEX, MSF	1
Identifies that the terminally ill often present with problems with multi-factorial causes some of which may be reversible	CbD, mini-CEX	1
Communicates honestly and sensitively with the patient (and carers),	CbD, mini-CEX	1,3,4

about the benefits and disadvantages of treatment and appropriate management plan, allowing the patient to guide the conversation. Can elicit understanding and concerns		
Writes a clear record of the issues and views that have been considered, the decision reached and the reasoning in complex end of life decisions and communicates relevant parts to other involved carers appropriately	CbD, mini-CEX	1,3
Demonstrates clear and logical thinking around legal and ethical issues at the end of life or related to the discontinuation of treatment	CbD, mini-CEX	1,3
Completes death certificates and cremation forms correctly	CbD, mini-CEX	1
Co-ordinates care within teams, between teams and between care settings, including referral to specialist palliative care services when recognising that care is complex	CbD, mini-CEX	1,2,3
Shows willingness to seek the opinion of others when making decisions about resuscitation status, and withholding or withdrawing treatment	CbD, mini-CEX, MSF	1,3
Supports the decision making around end of life issues, including those who are not competent to make decisions about their own care	mini-CEX, MSF	1,3
Manages the physical, emotional, social and psychological well-being of the patient in the final hours of life	CbD, mini-CEX, MSF, PS	1,4
Provides support to relatives and other health care professionals during the grieving process	CbD, mini-CEX, MSF, PS	1,4

2. Medical Leadership and Management

2.1 Personal qualities

Identify own strengths, limitations and the impact of their behaviour and can change their behaviour in light of feedback and reflection		
Knowledge	**Assessment Methods**	**GMP**
Can discuss different methods of obtaining feedback		1
Can discuss personal values and principles and how these may differ from those of other individuals and groups	CbD, MSF	1,3,4
Can discuss the importance of best practice transparency and consistency		1
Skills and Behaviour		
Demonstrates routine practice of critical self awareness, including discussing strengths and weaknesses with supervisor and recognising external influences and changing behaviour accordingly		1
Uses assessment, appraisal, complaints and other feedback to discuss and develop an understanding of own development needs		1.3
Can mediate, negotiate and deal appropriately with complaints	CbD, MCR, MSF, PS	1,2
Identifies own strengths and weaknesses	MCR, MSF	1,3
Organises and manage workload effectively and flexibly		1,3
Recognises and demonstrates respect for diversity and differences in others	MCR, MSF	1
Shows commitment to continuing professional development which involves seeking training and self development opportunities, learning from colleagues and accepting criticism	MCR, MSF	1,3
Demonstrates self management: organising and managing themselves while taking account of the needs and priorities of others	MCR, MSF	3
Can be left to deal with routine admin, well prepared and organised, competent at completing routine and complex admin tasks	MCR, MSF	1
Can juggle a large number of demands that are potentially conflicting or unpredictable, by setting priorities and planning effectively	MCR, MSF	1
Dependable, conscientious and does not need reminding	MCR, MSF	1
Demonstrates an analytical and scientific approach to problem-solving and shows a range of problem-solving skills	MCR, MSF	1
Can identify one's own biases and inconsistencies in clinical reasoning	MCR, MSF	1,3
Demonstrates empathy and respect towards patients and colleagues	MCR, MSF, PS	1,4
Always demonstrates a calm, systematic approach and achieves appropriate outcomes following interactions with patients and staff	MCR, MSF, PS	1
Works within a multidisciplinary team and always recognises the need and makes appropriate referrals to other health care professionals	MCR, MSF	1,3
Always has a calm, systematic approach and appropriate outcome following emergency situations	MSF, PS	1
Recognise the difficulties in predicting occurrence of future events	CbD, MCR, mini-CEX	1

2.2 Working with others

Adopt a team approach, acknowledging and appreciating efforts, contributions and compromises. Can recognise the common purpose of the team and respect their decisions		
Knowledge	**Assessment Methods**	**GMP**
Can discuss a range of leadership styles and approaches and their applicability to different situations and people		1
Skills and Behaviour		
Enables individuals, groups and agencies to implement plans and make decisions		1,3
Assesses and appraises more junior clinical colleagues or students		1,3
Builds and maintain relationships by listening, supporting others, gaining trust and showing understanding	MSF	3
Shows willingness to act as a leader, mentor, educator and role model as appropriate		3
Demonstrates recognition of a team approach, respecting colleagues, including non-medical professionals		1,3

2.3 Managing services

Support team members to develop their roles and responsibilities and continue to review performance of the team members to ensure that planned service outcomes are met		
Knowledge	**Assessment Methods**	**GMP**
Can discuss the relevant legislation and HR policies that apply to junior medical staff		1
Can discuss the duties, rights and responsibilities of an employer and co-worker		1
Can discuss the benefits and limitations of individual performance review		1
Can define the roles, competences and capabilities of other professionals and support workers	SCE	1,3,4
Can define the role of audit and quality improvement projects (improving patient care and services, risk management etc.)	SCE	1
Can define the steps involved in completing the audit cycle	SCE	1
Skills and Behaviour		
Contributes towards staff development and training, including mentoring, supervision and appraisal		1,3
Contributes to recruitment in the directorate such as; writing a job description, person specification, short listing candidates, interviewing applicants		1
Contributes to the development of an organisational response to emerging health policy		1
Demonstrates a commitment to good communication whilst also inspiring confidence and trust		1,3
Manages resources appropriately, discussing what resources are available and use influence to ensure that resources are used efficiently and safely		1
Manages people by providing direction, reviewing performance and motivating others		1,3
Manages performance by holding oneself and others accountable for service outcomes		1,3

2.4 Improving services

Ensure patient safety at all times, continue to encourage innovation and facilitate transformation		
Knowledge	**Assessment Methods**	**GMP**
Can discuss of risk management issues and the application of risk management tools		1,2
Can discuss how healthcare governance influences patient care		1
Can discuss a variety of methodologies for developing creative solutions to improving services		1,2
Can define the principles of risk assessment and risk management applied to a clinical setting such as; safe prescribing, sharps disposal, needlestick injury		1,2
Skills and Behaviour		
Reports clinical incidents appropriately and records documentation in a timely manner		1,2
Assesses and manages risk to patients appropriately		2
Monitors the quality of equipment and safety of the environment relevant to the specialty		1,2
Ensures the correct and safe use of medical equipment, ensuring faulty equipment is reported appropriately		2
Questions existing practice in order to improve the services		1,2
Seeks advice and or assistance whenever concerned about patient safety		1,2,3
Supports colleagues to voice new ideas and is open-minded to new thoughts		1,3

2.5 Setting direction

Identify the contexts for change and can make decisions		
Knowledge	**Assessment Methods**	**GMP**
Can define the functions and responsibilities of national bodies, College and faculties, representatives, regulatory bodies		1
Can discuss the approach to effective communication strategies within an organisation		1
Skills and Behaviour		
Discuss the local, national and UK health priorities and how they impact on the delivery of health care relevant to the specialty		1
Contributes to committee or group meetings and works collegiately and collaboratively with a wide range of people outside the immediate clinical setting		1,3
Demonstrates a willingness to articulate strategic ideas and use effective influencing skills		1,3
Demonstrates a willingness to participate in decision making processes beyond the immediate clinical care setting		1,3
Applies knowledge and evidence in practice through gathering information to produce an evidence-based challenge to systems and processes in order to identify opportunities for service improvements		1
Makes decisions by integrating values with evidence to inform decisions		1,3

2.6 Utility and application

Define the utility and application of information technology to patient care, personal development and to the delivery and management of healthcare across primary, secondary and tertiary divides		
Knowledge	**Assessment Methods**	**GMP**
Can discuss the availability of information in health related databases and relevant web sites	CbD, SCE	1
Can define the requirements for data retrieval, construction of retrieval plans and utility of data recorded in clinical systems	CbD, SCE	1
Can discuss the range of possible primary and secondary uses of clinical data and appreciate the benefits of aggregating clinical data	CbD, SCE	1
Can discuss the application of telemedicine or telecare to clinical practice	CbD, SCE	1
Can discuss the stages of evaluation of any new technology	CbD, SCE	1
Can discuss the utility of clinical data and information	CbD, SCE	1
Can discuss the application and benefits of electronic storage systems for clinical data and records	CbD, SCE	1
Skills and Behaviour		
Competent in the use of database, word processing and statistical software applications for creating documents and for the storage of data and information	CbD	1
Can retrieve healthcare information from a variety of sources including online data resources	CbD	1
Can define a data set for analysis and perform a statistical analysis on clinical and non-clinical data	CbD	1
Identifies the data retrieval requirements, conduct retrieval plans and use data recorded in clinical systems	CbD	1
Applies the appropriate use of information technology in clinical practice	CbD	1
Demonstrates an analytical and scientific approach to problem-solving and shows a range of problem-solving skills	MSF, PS	1

2.7 Confidentiality

Define the principles of confidentiality and implementation in terms of clinical practice in the context of information technology		
Knowledge	**Assessment Methods**	**GMP**
Can discuss the data protection act and other legislation and the relevance to clinical practice	CbD, SCE	1,3,4
Can define the responsibilities and liabilities in the UK and Europe, pertaining to confidentiality	CbD, SCE	1,3,4
Can define the responsibilities relating to the use of clinical information	CbD, SCE	1,3,4
Skills and Behaviour		
Always safeguards confidentiality and has excellent knowledge of the data protection act	MCR, MSF	1,3,4
Always considerate, polite and thoughtful of patients and colleagues when discussing confidential information inside and outside the work place	MCR, MSF	1,4
Always considerate of the patients age, status, cultural and social circumstances in relation to confidentiality of information	MCR, MSF	1,4

2.8 Audit of practice and quality improvement

Perform an audit of clinical practice or quality improvement project to identify areas for improvement, apply an intervention appropriately and complete the audit cycle to demonstrate improvement in practice

Knowledge	Assessment Methods	GMP
Can describe clinical, organisational and multi-professional audit	AA, MCR, SCE	1,2
Can define the different methods of obtaining data for audit including patient feedback questionnaires, hospital sources and national reference data, applied to clinical care	AA, CbD, MCR	1
Can define the role of audit (improving patient care and services, risk management etc)	AA, CbD, MCR	1
Can define the steps involved in completing the audit cycle, including setting standards in relation to clinical care	AA, CbD, MCR	1
Can discuss the use of national and local databases appropriate for audit such as specialty data collection systems such as NCPC or SIGN data sets, cancer registries etc.	AA, CbD, MCR	1
Can describe the working and uses of local and national systems available for reporting and learning from clinical incidents and near misses in the UK	CbD, MCR, SCE	1,2
Can describe the barriers to change in clinical practice and outline strategies to overcome them	AA, MCR	1
Skills and Behaviour		
Can design, implement and complete audit cycles that are relevant to clinical practice	AA, CbD, MCR	1,2
Contributes to local and national audit projects as appropriate (e.g. National Confidential Enquiry into Perioperative Deaths (NCEPOD), Scottish Audit of Surgical Mortality (SASM))	AA, CbD, MCR	1,2
Uses clinical audit with the purpose of highlighting resources required	AA, MCR	1,2,3
Supports audit by junior medical trainees and within the multi-disciplinary team	AA, MCR, MSF	1,2,3
Complies with national guidelines that influence healthcare provision	CbD, MCR, mini-CEX	1,2
Recognises the need for audit in clinical practice to promote standard setting and quality assurance	AA, MCR	1,2

2.9 Teaching and training

Deliver teaching or training to a variety of audiences in a variety of approaches, with assessment of the quality of the teaching, and ability to plan and deliver a training opportunity with appropriate assessment

Knowledge	Assessment Methods	GMP
Can define how medical education is underpinned by learning theories, particularly applied to adult learning	CbD, Teaching observation	1
Can define the purpose of assessment and the role of formative and summative assessment	CbD, Teaching observation	1
Can define the requirements and benefits of workplace-based assessment	CbD, Teaching observation	1
Can discuss the principles of adult and life-long learning, personal learning styles and reflective practice, and continuing professional development	SCE, MCR	1,2
Can define the roles and responsibilities of trainee and trainer	SCE, MCR	1,2,3
Can define the role of supervision, mentoring, learning contracts, critical appraisal and feedback, experiential learning in regard to own and others' development	SCE, MCR	1,2
Can discuss the local processes for dealing with and learning from clinical errors or critical incidents	CbD, MCR, SCE, MSF	1,2,4
Can describe relevant educational theories and principles, including adult learning principles relevant to medical education	CbD, MCR	1
Can define the roles of the various bodies involved in medical education and other sectors, including the role of the Postgraduate Deanery, Royal Colleges of Physicians and GMC in postgraduate education	CbD, MCR, SCE	1
Can discuss learning methods and effective learning objectives and outcomes, and describe the difference between objectives and outcomes	CbD, MCR	1
Can discuss the structure of an effective appraisal interview	CbD, MCR	1
Can differentiate between appraisal and assessment versus performance review and recognise the need for both	CbD, MCR	1
Can differentiate between formative and summative assessment and define their role in medical education	CbD, MCR	1
Can discuss the role of workplace-based assessments, the assessment tools in use, their relationship to course learning outcomes, the factors that influence their selection and the need for monitoring evaluation	CbD, MCR	1
Can discuss the appropriate local course of action to assist a trainee experiencing difficulty in making progress within his/her training programme	CbD, MCR	1
Skills and Behaviour		
Can plan learning aims, objectives, methods and outcomes	CbD, MCR	1,3
Demonstrates the routine practice of critical self awareness, including ability to discuss strengths and weaknesses with supervisor, recognising external influences and change behaviour accordingly	CbD, MCR	1,2
Uses a reflective approach to practice with an ability to learn from previous experience	CbD, MCR	1,2
Uses assessment, appraisal, complaints and other feedback to discuss and develop an understanding of own development needs	CbD, MCR	1,2
Identifies the learning needs of others and plans the delivery of learning to address identified need	CbD, Teaching observation	1

Delivers effective clinical teaching, such as; large group teaching (lectures), tutorial group activities, small group clinical teaching, instructional design and use of audio visual aids, facilitates active audience participation	Teaching observation	1
Undertakes supervision, workplace-based assessments, appraisal, mentoring as appropriate	MSF	1
Recognises the trainee in difficulty and take appropriate action, including where relevant referral to other services	CbD, MSF	1
Participates in professional development activities such as; a journal club, network educational meetings		1
Delivers excellent oral presentation of cases or scientific data, with clear delivery of the objective of the presentation	CbD, mini-CEX, MSF, PS	1,3,4
Participates in strategies aimed at improving patient education, e.g. talking at support group meetings	CbD, MSF	1
Vary teaching format and stimulus, appropriate to situation and subject	CbD, TO, MCR	1
Provide effective feedback as appropriate after teaching, and promote learner reflection, communicating feedback effectively and constructively	CbD, MCR, MSF	1
Provides appropriate career support, or refer trainee to an alternative effective source of career information	CbD, MCR, MSF	1,3
Participates in strategies aimed at improving patient education e.g. talking at support group meetings	CbD, MSF, TO, MCR	1
Demonstrates willingness to seek and learn from feedback	MSF, TO	1,2,3
Maintains honesty and objectivity during appraisal and assessment	CbD, MSF	1,3
Willing to teach trainees and other health and social care workers in a variety of settings to maximise effective communication and practical skill development and to improve patient care	CbD, MCR, MSF	1
Demonstrates consideration for learners, including their emotional, physical and psychological well-being with their development needs	CbD, MSF, TO	1,3
Show commitment to continuing professional development which involves seeking training and self development opportunities, learning from colleagues and accepting constructive criticism	MCR, MSF	1,2
Contributes to educational policy and development, as appropriate, at local or national levels	CbD, MCR, MSF	1

3. Clinical Research, Ethics and Economics

3.1 Clinical trials

Define the components of clinical trial design, through development and conduct of clinical trials and can enrol, assess, consent and manage patients within clinical trials

Knowledge	Assessment Methods	GMP
Can define the ethical, regulatory and legal issues involved in the design of a clinical trial	CbD, SCE	1,4
Can define the criteria for assessing response to therapy	CbD, SCE	1,4
Can define the selection of appropriate end-points for clinical trials	CbD, SCE	1,4
Can discuss the issues relating to informed consent for a clinical trial, particularly for an investigational agent	CbD, SCE	1,3
Can discuss the tools used to assess quality of life and assess and grade toxicity	CbD, SCE	1
Can discuss the inclusion of biomarkers in clinical studies and their opportunities and limitations	CbD, SCE	1
Can define the regulatory mechanisms of surveillance, monitoring of studies, data monitoring and good clinical practice guidelines	CbD, SCE	1,3,4
Can define the factors that influence the design, implementation and analysis of clinical trials, including Phase I, II and III studies	CbD, SCE	1
Can describe commonly used statistical methodology, such as: • requirement for patient numbers and sample size calculation in designing studies • use of descriptive statistics, qualitative and quantitative approaches • population and sample analyses • probability distributions • confidence intervals • parametric and non-parametric tests of significance • correlation and regression • sampling methods • variance analysis • mortality and morbidity data analysis • life tables • hazard ratio • analysis of survival	CbD, SCE	1
Can identify the potential sources of bias for a particular trial design	CbD, SCE	1
Can define the principles relating to the delivery of Good Clinical Practice in relation to the conduct of clinical trials	CbD, SCE	1,4
Can define the responsibilities of a trial steering committee or an independent data safety monitoring committee	CbD, SCE	1
Skills and Behaviour		
Determines and communicates to the patient the risk/benefit ratio of the planned treatment, anticipating the likely complications and obtains appropriate informed consent	MCR, mini-CEX, MSF, PS	1,2,3,4
Applies the response evaluation criteria in solid tumours (RECIST 1.1) in the assessment of response to therapy	CbD, MCR, MSF	1

Writes clear, legible, structured and comprehensive documentation that is dated and signed and includes a clear plan of participation in a clinical trials that includes screening investigations, monitoring, anticipation of toxicity, intended outcomes and planned assessment of response to therapy	CbD, MCR, mini-CEX, MSF	1,2,3
Explains the clinical reasoning behind the participation in the clinical trials and delivers clarity and understanding to the patient, with reference to published evidence, where appropriate, on which the decisions are made	CbD, MCR, mini-CEX, MSF, PS, SCE	1,3
Can appraise a project plan to determine the appropriate clinical trial methodology, identify the data required for collection, identify potential sources of bias and choose appropriate statistical approaches to answer the project hypothesis	CbD, SCE	1
Identifies and recruits patients appropriately to clinical trials	MCR, mini-CEX, MSF	1,3
Maintains appropriate training and accreditation in the delivery of Good Clinical Practice in relation to the conduct of clinical trials	Course certificate	1,4

3.2 Ethical issues in Oncology

Define and discuss the range of ethical issues encountered in the management of patients with cancer

Knowledge	Assessment Methods	GMP
Can discuss the ethical issues relating to clinical practice, such as; • Issues related to institution and withdrawal of life support systems including hydration and nutrition • Informed consent (including for an investigational agent) • The use of living wills • Resuscitation guidelines in patients with terminal disease • Patient's rights • Responsibility for decisions • Competence to make particular decisions • Physician-assisted suicide	CbD, SCE	1,4
Can discuss approaches to medical ethics including beneficence, non-maleficence, justice and respect for autonomy	CbD, SCE	1,2
Can discuss potential ethical issues relating to the conduct of medical research	CbD, SCE	1,4
Can define the role and functioning of an ethics committee	CbD, SCE	1,4
Can define the process for application for ethical approval of a proposed clinical study	CbD, SCE	1,4
Can define the role of the local and national ethics committees in the approval and evaluation of clinical trials	CbD, SCE	1,4
Can define the principles of Good Clinical Practice (GCP) and the Declaration of Helsinki, with regard to the treatment of patients on clinical trials and quality of data collection	CbD, SCE	1,4
Skills and Behaviour		
Identifies potential conflict of interest between patients and their relatives, or the clinician and the patient's best interests	CbD, MCR, mini-CEX, MSF, PS	1,2,4
Collects clinical data in a reliable, honest, accurate manner	CbD, mini-CEX, MSF	1,4
Identifies potential ethical issues relating to clinical practice and discusses with colleagues for advice as appropriate	MCR, MSF	1,4
Demonstrates empathy and respect towards patients and colleagues	MCR, MSF, PS	1,4
Demonstrate an analytical and scientific approach to problem-solving and shows a range of problem-solving skills	MSF	1
Always considerate of the patient's age, status, religion, cultural and social circumstances when determining treatment	MCR, MSF, PS	1,4
Appropriate attitudes that reflect professionalism and humanism in the care of patients	CbD, mini-CEX, MSF, PS	1,4

3.3 Provision of Cancer Services and Resource Management

Define and discuss the economic issues in the provision of cancer services and the requirements of resource management		
Knowledge	**Assessment Methods**	**GMP**
Can define cost-benefit, value for money and cost-effectiveness of medical intervention in the management of cancer	CbD, SCE	1
Can discuss the financial management of providing a cancer service	CbD, SCE	1
Can define the methods used to calculate the cost-effectiveness of a specific treatment	CbD, SCE	1
Can discuss the use of business plans for service provision and introduction of new therapies	CbD, SCE	1
Can discuss the developments in information technology and their impact on the NHS	CbD, SCE	1
Can discuss the variability n the relative effectiveness of cancer drugs in the same adjuvant or advanced disease setting	CbD, SCE	1
Can discuss the variability in the quality of the evidence describing the clinical utility of cancer drugs	CbD, SCE	1
Can discuss the factors that underlie the increasing complexity and costs of delivering successful cancer services both nationally and internationally	CbD, SCE	1
Can discuss the process of risk management and of operating within a litigious and complaints culture, with some experience in making a risk assessment and implementing systems to reduce risk	CbD, SCE	1
Skills and Behaviour		
Recognises and prioritises problems with efficiency and can analyse, interpret and prioritise information recognising and defining its limitations	MCR, MSF	1
Can choose and apply appropriate quantitative and qualitative methodology to a scientific or research situation or develop new methods of assessment	MCR, MSF	1
Demonstrates excellent political awareness and possibly contributes to the discussions	MCR, MSF	1,4
Demonstrates a well prepared and organised approach, competent at completing routine and complex admin tasks	MCR, MSF	1
Can personally adapt to the hospital's management policies	MCR, MSF	1,2

3.4 Legal framework

Define and discuss the legal aspects of clinical care and the skills required to make decisions and practice medicine within a legal/lawful framework		
Knowledge	**Assessment Methods**	**GMP**
Can define the application of law (common, parliamentary and European) and guidelines (DoH, BMA, GMC, Royal Colleges and local) to clinical practice, such as; • Definition and certification of death including procedures for relatives • Referral to and duties of the coroner • Cremation and burial regulations • Patients refusal of treatment • Mental Health Act • Prescribing responsibilities • Non-licensed use of drugs • Euthanasia • Persistent vegetative state • Informed consent • Capacity and competency • Power of attorney • Record taking and storage of information including data protection act • Confidentiality • Assault, battery and manslaughter as applied to medicine • Living wills • Custody and care of minors • Storage of biological samples, particularly those for research • Withdrawal or withholding therapy from competent and incompetent patients • Laws and regulations relating to nursing homes • Employment law including equal opportunities and discrimination	CbD, SCE	1,2,3,4
Application of corporate law to the NHS, charities and liabilities of employers and employees	CbD, SCE	1
Skills and Behaviour		
Complies with all applicable legal frameworks in the delivery of clinical practice	MCR, MSF	1,4
Certifies death with accuracy and clarity of documentation	CbD, MCR, MSF	1,4
Identifies conflict between the intentions of the health care professionals, the wishes of the patient or their family and the legal framework through which a clinical service is delivered	CbD, mini-CEX, MSF, PS	1
Demonstrates appropriate attitudes that reflect professionalism and humanism in the care of patients	MCR, MSF, PS	1,4

4. Scientific basis of malignancy

This entire section of the curriculum relates to the knowledge that underpins the clinical specialty of Medical Oncology. As such this represents a syllabus of topics and the primary approach to assessment will be the Specialty Certificate Examination (SCE).

Such knowledge can be explored during case-based discussions as part of justification for the clinical decisions taken in practice.

4.1 Foundation knowledge of cancer medicine

Describe the scientific foundation knowledge of cancer medicine		
Knowledge	**Assessment Methods**	**GMP**
Epidemiology of cancer: • Methods of epidemiological investigation • Use of cohort and case-controlled studies • Influence of random error and sources of bias • Confounding and effect modification • Geographical and age distribution of cancer	CbD, SCE	1
Environmental factors in the causation of cancer: • Radiation • Chemicals • Infections • Hormones • Nutrition and lifestyle	CbD, SCE	1
The hallmarks of cancer and their therapeutic significance: • Genome instability and mutation • Resisting cell death • Sustaining proliferative signalling • Evading growth suppressors • Enabling replicative immortality • Inducing angiogenesis • Activating invasion and metastasis • Reprogramming energy metabolism • Tumour-promoting inflammation • Evading immune destruction	CbD, SCE	1
Molecular biology: • Structure and function of the gene • Mechanics of cell division • The cell-division cycle • DNA and protein synthesis, breakage and repair mechanisms • Molecular mechanisms of mutagenesis • Tumour suppressor genes and oncogenes and methods of genetic analysis • Chromosomal and genetic changes in malignancy, point mutations, translocations, deletions, gene amplification and over-expression • Intracellular signalling and transcription factors • Growth factors and signal transduction	CbD, SCE	1

Cellular biology: • Structure and function of the normal cell • Properties of malignant cells and regulation of tumour growth • Tumour angiogenesis • Mechanisms of tumour cell invasion and metastasis • Cell adhesion and contact inhibition • Mechanisms of cell death; apoptosis, autophagy and necrosis • Immunology related to cancer	CbD, SCE	1
Immunology of cancer: • Innate and acquired immunity • Specificity and clonal selection • Antibodies, immunoglobulin receptors and B-cell activation • Cell-mediated immunity • Tumour immunity • Immune surveillance • Failure of the immune response	CbD, SCE	1
Pathology: • Nomenclature of neoplasia, differentiation, grading and classification of tumours (e.g. WHO) • Indications for biopsy of a new lesion and selection of the best site • Use of immunohistochemistry and limitations in establishing a diagnosis • Use of diagnostic test modalities in establishing a diagnosis such as; fluorescent in-situ hybridisation, RT-PCR, Sanger sequencing, microarrays and next generation sequencing • Use of different staging systems in each tumour type and the relationship of the TNM classification system and contemporary practice in order to assign each stage • Correlation between stage and prognosis	CbD, SCE	1
Radiology: • Application and limitations of different imaging techniques such as computed tomography (CT), magnetic resonance imaging (MRI), and hybrid imaging techniques (PET/CT, MR/PET) • Can define staging systems based on imaging investigations • Can discuss imaging-related safety issues and complications of procedures • Can discuss the clinical application and limitations of molecular imaging techniques and discuss the complementary role of molecular and anatomical imaging	CbD, SCE	1

4.2 Pharmacology of anticancer therapies and drugs used in symptom control

Describe foundation principles of clinical pharmacology in relation to the management of patients with cancer receiving systemic anticancer therapies and palliative care

Knowledge	Assessment Methods	GMP
Can define the general principles of pharmacokinetics, pharmacodynamics and pharmacogenetics	CbD, SCE	1
Can define the pharmacological principles including absorption, distribution, metabolism and clearance/elimination	CbD, SCE	1
Can define the mechanism of action, indications, contraindications and dosage of commonly used anticancer drugs	CbD, SCE, mini-CEX	1
Can define the classification of anticancer agents	CbD, SCE	1
Can define the specific mechanisms of resistance that have been identified for individual anticancer agents	CbD, SCE	1
Can describe food-drug interactions that relate to individual anticancer agents, particularly for those used via the oral route	CbD, SCE, mini-CEX	1,2
Can describe drug-drug interactions (including oral anticoagulants) and which includes drug-herb and drug-nutritional supplement interactions, for individual anticancer agents	CbD, SCE, mini-CEX	1,2
Can define the acute, late and very late adverse drug reactions of commonly used anticancer drugs, including complementary medicines, immunotherapy, chemotherapy, hormonal and biological agents	CbD, SCE, mini-CEX	1,2
Can define the range of toxicity that can manifest many months to years after completion of treatment	CbD, SCE	1,2
Can define the impact of long-term toxicity on the function of individual body systems (e.g. cardiovascular, renal, hepatic)	CbD, SCE	1,2
Can define the impact of therapy on gonadal function	CbD, SCE	1,2
Can define the range of second cancers that can occur following anticancer therapy	CbD, SCE	1,2
Can define the long-term impact on quality of life for a patient following anticancer therapy	CbD, SCE	1,2
Can define the drugs that require therapeutic drug monitoring	CbD, SCE, mini-CEX	1,2
Can define the effects of age, body size, organ dysfunction and co-morbidity on drug distribution, metabolism and clearance/elimination	CbD, SCE, mini-CEX	1,2
Can define the alterations in clinical pharmacology in pregnancy and during breast feeding	CbD, SCE, mini-CEX	1,2
Can describe, for drugs commonly used in symptoms control: • Routes of administration • Absorption, metabolism, excretion • Half-life, usual frequency of administration • Adverse effects and their management • Opioid switching - rationale and dose conversions • Use in syringe drivers, stability and miscibility • Interactions with other drugs • Possibility of tolerance, dependence, addiction and discontinuation reactions	CbD, SCE, mini-CEX	1,2
Can describe the adjustment of dosage in frail, older person and children	CbD, SCE, mini-CEX	1,2
Can describe the adjustment of dosage in altered metabolism, organ failure, disease progression and in dying patients	CbD, SCE, mini-CEX	1,2

4.3 Principles of radiotherapy

Define the role of radiotherapy in cancer therapy		
Knowledge	**Assessment Methods**	**GMP**
Can describe the mechanisms of cellular damage due to irradiation	CbD, SCE	1
Can describe process of tissue repair after radiotherapy and normal tissue tolerance	CbD, SCE	1
Can define the influence of time, dose, fractionation and type of radiation on the delivery, efficacy and tolerance of radiotherapy	CbD, SCE	1
Can describe the radiotherapy treatment process, including the techniques used for immobilisation during radiotherapy, the methods used for tumour localisation, principles of radiotherapy planning and radiotherapy treatment	CbD, SCE	1,2
Can define the differences between external beam radiotherapy, brachytherapy and radionucleotide therapy	CbD, SCE	1
Can define the commonly used radiotherapy dose and fractionation schedules with reference to the treatment intent (curative/palliative)	CbD, SCE	1,2
Can describe the differences in radiation tolerance of organs or tissues at risk	CbD, SCE	1
Can discuss the interaction between radiotherapy and systemic anticancer therapy	CbD, SCE	1
Can describe the common early, late and very late side effects of radiotherapy	CbD, SCE	1,2
Can discuss the common indications for curative, adjuvant, neoadjuvant and palliative radiotherapy	CbD, SCE	1,2

5. Systemic anticancer therapies

Advice to candidates sitting the Specialty Certificate Examination
Rather than providing a list of drugs that could be the focus of questions in the SCE, the following guidance should be considered as assessment questions are written with the following constraints:

1. Management decisions about choosing a particular treatment, or the best approach to treatment will only cover drugs or strategies approved by The National Institute for Health and Care Excellence (NICE). There are some older treatments that were established in practice before the creation of NICE and these too can be used to test management decisions. If there is a treatment approved by The Scottish Intercollegiate Guidelines Network (SIGN) but **not** NICE it will not be assessed.
2. Drugs that are licensed but not yet approved by NICE are excluded from management decision questions, but could be used to test knowledge about mechanism of action, adverse effects, pharmacology etc.
3. Drugs that are not licensed are excluded from SCE assessment questions.

5.1 Therapeutics and safe prescribing

Demonstrate the safe use of drugs necessary to treat patient with cancer, including non–medication based therapeutic and preventative indications

Knowledge	Assessment Methods	GMP
Can discuss the roles of regulatory agencies involved in drug use, monitoring and licensing (e.g. National Institute for Health and Care Excellence (NICE), Committee on Safety of Medicines (CSM), and Medicines and Healthcare Products Regulatory Agency (MHRA)) and hospital formulary committees	CbD, MCR, SCE, mini-CEX	1,2
Can describe the roles and limitations of drugs, physical therapies, psychological interventions and complementary therapies in oncology and palliative care	CbD, MCR, SCE	1,2
Can discuss the tools to promote patient safety and prescribing, including electronic clinical record systems and other IT systems	CbD, MCR, mini-CEX	1,2
Can discuss how specific interventions can prevent specific toxicities associated with specific anticancer agents	CbD, SCE	1,2
Can discuss concordance and non-concordance with treatments, including reasons for non-concordance and approaches to increasing concordance	CbD, MCR, SCE	1,2
Can describe the role of hospital and community-based pharmacy services	CbD, MCR, SCE	1,2
Can describe the legal and ethical issues relating to the prescription of controlled drugs, the use of drugs on a named patient basis and the use of drugs outside their product licence	CbD, MCR, SCE	1,2
Can discuss problems relating to polypharmacy, identification of patients at risk and developing strategies to prevent problems in practice	CbD, MCR, SCE	1,2
Can discuss the importance of resources when prescribing, including the role of a Drug Formulary and electronic prescribing systems	CbD, MCR, mini-CEX	1,2
Can define the scientific basis for using naturally occurring or synthetic agents that reverse, suppress, or prevent development of an invasive cancer (preventative therapy)	CbD, SCE	1
Can describe appropriate clinical trial methodology for testing prevention strategies	CbD, SCE	1

Skills and Behaviour		
Reviews the continuing need for, effect of, and adverse effects of long term medications relevant to patient with cancer	CbD, MCR, mini-CEX	1,2
Anticipates and avoid defined drug interactions, including complementary medicines and drugs used in palliative care	CbD, MCR, mini-CEX	1,2
Advises patients (and carers) about important interactions and adverse drug effects	CbD, MCR, mini-CEX	1,3
Manages adverse effects of drugs commonly used in palliative medicine or commonly taken by patients presenting to palliative care	CbD, MCR, mini-CEX	1,2,3
Modifies prescriptions to switch opioids using appropriate rationale and dose conversions	CbD, MCR, mini-CEX	1,2
Uses drugs in syringe drivers appropriately, taking account of stability and miscibility	CbD, MCR, mini-CEX	1,2
Adjusts the dosage appropriately in the older person, children and patients with poor performance status	CbD, MCR, mini-CEX	1,2
Adjusts the dosage appropriately in patients with altered metabolism, organ failure, disease progression and in dying patients	CbD, MCR, mini-CEX	1,2
Participates in multi-disciplinary team meetings to develop an appropriate treatment strategy for the patient that may include referral for radiotherapy treatment or palliative care	CbD, MCR, mini-CEX	1,3,4
Prescribes appropriately in pregnancy and during breast feeding, if appropriate	CbD, MCR, mini-CEX	1,2
Makes appropriate dose adjustments following therapeutic drug monitoring, or physiological change (e.g. deteriorating renal function)	CbD, MCR, mini-CEX	1,2
Uses IT prescribing tools where available to improve safety	CbD, MCR, mini-CEX	1,2
Helps patients and carers to understand and manage tablets by providing comprehensible explanations to the patient, and carers when relevant, for the use of medicines and recognise the principles of concordance in ensuring that drug regimes are followed	CbD, MCR, mini-CEX	1,2,3
Employs validated methods to improve patient concordance with prescribed medication	CbD, MCR, mini-CEX	1,3
Recognises the importance of non-medication based therapeutic interventions including the legitimate role of placebos	CbD, MCR, mini-CEX	1,3
Where involved in repeat prescribing, ensures safe systems for monitoring, review and authorisation and consideration of drug dependence	CbD, MCR, mini-CEX	1,2
Recognises the benefit of minimising number of medications taken by a patient to a level compatible with best care	CbD, MCR, mini-CEX	1,2
Remains open to advice from other health professionals on medication issues	CbD, MCR, mini-CEX	1,3
Ensures prescribing information is shared promptly and accurately between a patient's health providers, including between primary and secondary care	CbD, MCR	1,3
Participates in adverse drug event reporting mechanisms	CbD, MCR, mini-CEX	1,2
Remains up to date with therapeutic alerts and responds appropriately	MCR	1,2
See section 4.2 and 4.3 in relation to the knowledge of pharmacology and radiobiology that underpins the therapeutic application in practice		

5.2 Prescribing systemic anticancer therapy

The systemic management of cancer involves use of a wide range of agents. These include cytotoxic agents, monoclonal antibodies, immunotherapy and small molecule targeted agents. For simplicity, these agents will be collectively referred to as systemic anticancer therapies (SACT). Some agents are used for non-cancer conditions, particularly for the purpose of immunosuppression.

Cytotoxic agents are known to be harmful, potentially carcinogenic and mutagenic as defined by the Control of Substances Hazardous to Health Regulations 2002 (COSHH). Treatment involving such medicines must be prescribed, dispensed, supplied and administered in accordance with the Medicines Act 1968.

It is essential that individuals prescribing these agents have a thorough working knowledge of their mode of action, metabolism and potential side effects. The prescriber must understand how patient-related factors may necessitate dose or schedule alterations.

The need for formal assessment of and documentation of competency in prescribing SACT is based on the following:

1 NCAG (National Chemotherapy Advisory Group www.nelm.nhs.uk) in response to the NCEPOD report (National Confidential Enquiry into Patient Outcome and Death (www.ncepod.org.uk) suggested that prescribing, prescription verification and dispensing of chemotherapy should only be undertaken by appropriately trained staff. In addition all SACT services should maintain up to date lists of staff that are authorised to prescribe, check prescriptions and dispense chemotherapy.

2 Revised guidance for the Safe Delivery of Systemic Anti-Cancer Therapy (Scottish Government CEL 30 (2012) (http://www.sehd.scot.nhs.uk/mels/CEL2012 30.pdf). Included in this guidance is a requirement that “All staff involved in SACT have appropriate skills, knowledge and training in their field of practice”.

3 ‘Achieving safer prescription of cytotoxic agents: Academy recommendations’ document available at:

- http://www.aomrc.org.uk/general-news/achieving-safer-prescription-of-cytotoxic-agents-academy-recommendations.html

4 Concerns regarding the prescribing and administration of cytotoxic and immunosuppressant agents by Foundation Doctors: An Investigation of Prevailing Practice, AoMRC 2013, http://www.aomrc.org.uk/

Several levels of competency in prescribing SACTs are described and trainees will only be permitted to prescribe under appropriate supervision within their competency level. Progress to the next level of competency requires that trainees are assessed as competent by an appropriate supervisor having demonstrated the required knowledge, skills and behaviours required.

This document outlines a set of competencies that are required for training in Medical Oncology curriculum and the level of competence expected during the training period. Trainees require appropriate supervision and access to support at all times.

Summary of levels of competence

Level	Summary description
	Foundation and Core Medical Training
0	Can recognise that a patient is receiving systemic cytotoxic or immunosuppressive therapy and alerts senior team members appropriately. No prescription can be undertaken
1	Can recognise important adverse effects of cytotoxic or immunosuppressive therapy and recognises that these agents may need to be stopped
	Specialty Training in Medical Oncology
2	Can undertake a review of a patient receiving systemic anticancer therapy and can authorise the next cycle of treatment to proceed. All prescription requires countersignature
3	Can continue a prescription for systemic anticancer therapy without countersignature but cannot prescribe the first cycle of systemic chemotherapy
4	Can initiate and prescribe systemic anticancer therapy for patients with a range of malignancies, while operating within local guidelines. Can demonstrate appropriate involvement of the patient and carers in decision-making regarding treatment
5	Can demonstrate competence at a level expected of a consultant and can make treatment decisions on all appropriate patients including those that fall outside of departmental guidelines by virtue of a rare tumour type or unique patient factors

Please Note:

Trainees starting Medical Oncology training at ST3 are likely to start at level 2 in the above competency ladder. However, level 2 includes all the competencies at level 0 and 1 and therefore are included here as reference as they will require assessment during ST3. Furthermore, not all trainees will have gained levels 0-1 competency during their Core Medical Training and upon commencing at ST3, the appropriate clinical supervisor should review the individual trainee and assess their abilities.

This is an issue of patient safety and all prescribers of systemic anticancer therapies should achieve and maintain the relevant competencies.

Level 0

A trainee at this level is likely to be in Foundation Year 1-2.

Prescribing: Trainees at this level cannot prescribe cytotoxic or immunosuppressive therapy chemotherapy (used in non-cancer conditions).

Knowledge	Assessment Methods	GMP
Can recognise when a patient is being treated with cytotoxic or immunosuppressive therapy	CbD, mini-CEX	1,2
Can recognise that it is safe to miss a dose of cytotoxic or immunosuppressive therapy	CbD, mini-CEX	1,2
Can define the likely adverse effects of the cytotoxic or immunosuppressive therapy in common usage within the relevant clinical service	CbD, mini-CEX	1,2
Skills and Behaviour		
Alerts senior team member when a patient is receiving cytotoxic or immunosuppressive therapy	CbD, MCR, mini-CEX, MSF	1,2

Level 1

A trainee at this level is likely to be in FY2 or Core Medical and can undertake a review of a patient receiving cytotoxic or immunosuppressive agents and can repeat a prescription for the next cycle of treatment to proceed. **Level 1 includes all of the competencies at level 0**.

Prescribing: Trainees at this level can prescribe cytotoxic or immunosuppressive therapy (used in non-cancer conditions) that has already been initiated.

Knowledge	Assessment Methods	GMP
Can define the likely adverse effects of the cytotoxic or immunosuppressive therapy in common usage within the relevant clinical service	CbD, SCE	1,2
Can define the antiemetic requirements of patients receiving cytotoxic or immunosuppressive therapy	CbD	1,2
Can define and initiate appropriate pharmacological and non-pharmacological supportive measures that may be required by patients receiving cytotoxic or immunosuppressive therapy, including growth factors, antibiotic therapy and blood product support	CbD, mini-CEX	1,2
Can define the principles for dose delay or dose reduction of cytotoxic or immunosuppressive therapy	CbD, SCE	1,2
Can review a prescription for cytotoxic or immunosuppressive therapy and accurately identify any errors or omissions	CbD	1,2
Skills and Behaviour		
Can assess patient fitness to proceed with cytotoxic or immunosuppressive therapy	CbD, MCR, mini-CEX	1,2
Can correctly and accurately authorise treatment to proceed following assessment of the patient and relevant laboratory investigations	CbD, MCR, mini-CEX	1,2

Level 2

A trainee at this level is likely to be in Specialty Training and can undertake a review of a patient receiving systemic anticancer therapy (SACT) and can authorise the next cycle of treatment to proceed. This may include investigational agents in the context of a clinical trial. **Level 2 includes all of the competencies at levels 0-1**.

Prescribing: Trainees at this level can prescribe systemic anti-cancer chemotherapy already initiated but require the countersignature of a more senior qualified person on all prescriptions.

Knowledge	Assessment Methods	GMP
Can define the likely adverse effects of the SACT in common usage within the relevant clinical service	CbD, SCE	1,2
Can define the antiemetic requirements of patients receiving SACT	CbD	1,2
Can define and initiate appropriate pharmacological and non-pharmacological supportive measures that may be required by patients receiving SACT, including growth factors, antibiotic therapy and blood product support	CbD, mini-CEX	1,2
Can define the principles for dose delay or dose reduction of SACT	CbD, SCE	1,2
Can review a prescription for SACT and accurately identify any errors or omissions	CbD	1,2
Skills and Behaviour		
Can assess patient fitness to proceed with SACT	CbD, MCR, mini-CEX	1,2
Can correctly and accurately authorise SACT treatment to proceed following assessment of the patient and relevant laboratory investigations	CbD, MCR, mini-CEX	1,2

Level 3

A trainee at this level is likely to be in Specialist Training and can continue a prescription for SACT but cannot prescribe the first cycle of chemotherapy. **Level 3 includes all of the competencies at levels 0-2**.

Prescribing: Trainees at this level can prescribe systemic anti-cancer chemotherapy already initiated and do not require countersignature of the prescription. This may include investigational agents in the context of a clinical trial.

Knowledge	Assessment Methods	GMP
Can define the methods for calculating the correct dose of medication for administration including those based on body surface area, pharmacokinetic and pharmacodynamic principles	CbD, SCE	1,2
Skills and Behaviour		
Can perform a thorough assessment of toxicity or adverse effects and record the clinical information using defined systems such as the Common Toxicity Criteria	CbD, MCR, mini-CEX, SCE	1,2
Can assess objective tumour response by clinical, serological and radiological parameters	CbD, MCR, mini-CEX, SCE	1
Can implement a dose delay or dose reduction of systemic therapies, based upon haematological toxicity	CbD, SCE	1,2
Can manage an extravasation event, following local protocols and involvement of plastic surgeons as appropriate	CbD, MCR, mini-CEX, SCE	1,2
Can prescribe antiemetic medications appropriate to the chosen SACT and modified following review of the patients' situation and symptoms following previous treatments	CbD, MCR, mini-CEX, SCE	1,2
Can obtain informed consent for SACT following appropriate discussion of indications and likely adverse effects of treatment	CbD, MCR, mini-CEX	1,3
Can determine that a patient may not be tolerating the treatment as expected and appropriately involves more senior colleagues in the review of the patient	CbD, MCR, mini-CEX, SCE	1,2
Can prescribe and order appropriate SACT without error or omission	CbD, MCR, mini-CEX	1,2
Can prescribe using paper-based or electronic prescribing systems	CbD, MCR, mini-CEX	1,2

Level 4

A trainee at this level is likely to be a Specialist Trainee in Oncology and can initiate SACT for patients with a range of malignancies, while prescribing within local guidelines. This may include investigational agents in the context of a clinical trial. **Level 4 includes all of the competencies at levels 0-3**.

It is expected that trainees will develop these competencies over a 2-3 year period during specialist training. Trainees require assessment and should be signed off at level 4 for **each** tumour subspecialty post during a rotation and this can be reviewed during ARCP.

Prescribing: Trainees at this level can prescribe and initiate systemic chemotherapy for patients with a range of malignancies, while operating within local guidelines.

Knowledge	Assessment Methods	GMP
Can define the scientific mechanism of action of the SACT used in the management cancer patients and identify when this may interact with other prescribed drugs	CbD, SCE	1,2
Can define the requirement of Good Clinical Practice as it relates to clinical trials	CbD, mini-CEX, SCE	1,2
Can define the long-term effects of SACT including the impact on fertility and risk of a secondary malignancy	CbD, SCE	1,2
Skills and Behaviour		
Can initiate SACT for a range of malignancies following detailed assessment of the patient and considering the decisions made during a multidisciplinary team meeting	CbD, MCR, mini-CEX, SCE	1,2
Can modify the dosage of SACT based on pharmacokinetic and pharmacodynamic information relating to a patient	CbD, MCR, mini-CEX, SCE	1,2
Can modify the dosage of SACT based upon the co-morbidity of the patient and other factors such as the age of the patient	CbD, MCR, mini-CEX, SCE	1,2
Can institute appropriate dose modifications of SACT based upon clinical data that relates to organ dysfunction and other biochemical parameters	CbD, MCR, mini-CEX, SCE	1,2
Can perform a thorough assessment of SACT toxicity and report adverse events to appropriate regulatory authorities	CbD, MCR, mini-CEX, SCE	1,2
Can assess objective tumour response by clinical, serological and radiological parameters, including the use of RECIST 1.1 criteria	CbD, SCE	1
Can appropriately request assistance or advice when a situation requires the involvement of a more senior colleague	MCR, Mini-CEX, MSF	1,2
Can determine, in conjunction with patients and carers, the appropriateness of continuing treatment, particularly in patients with poor performance status or significant co-morbid conditions	CbD, MCR, mini-CEX	1,2,4

Level 5

A trainee at this level can demonstrate competence at a level expected of a consultant and can make treatment decisions on all appropriate patients. Individuals at this level can make decisions on patients that fall outside of departmental guidelines by virtue of a rare tumour type or unique patient factors. **Level 5 includes all of the competencies at levels 0-4**.

At a departmental level, such individuals will demonstrate leadership in shaping the prescribing of SACT within a directorate and will be evidenced by involvement in activities such as the development and maintenance of guidelines and the introduction of new therapies.

They will be expected to actively participate in the governance of SACT prescribing and administration and in particular, can demonstrate evidence of involvement in the training of junior staff in the prescribing of SACT.

All specialist trainees will require competence at level 5 prior to CCT in Medical Oncology. It is envisaged that this level competence is more likely to be assessed by an educational supervisor that has a longer-term view of the trainee during their training period.

Prescribing: Trainees at this level can prescribe and initiate all forms of systemic chemotherapy for patients with a range of malignancies, while operating within local guidelines.

Knowledge	Assessment Methods	GMP
Can define strategies to introduce a new therapy within a clinical department	CbD, SCE	1,3
Can define the training needs of all health care professionals involved in the delivery of SACT	CbD, SCE	1,3
Can define the regulatory framework for the development of new therapies used in the treatment of patients with cancer	CbD, SCE	1,3
Skills and Behaviour		
Can customise a SACT prescription for an individual patient that falls outside of departmental guidelines	CbD, MCR	1,2
Can perform a critical analysis of the published evidence of benefit for a new therapy and advise the local authorities regarding the cost-effectiveness and likely benefits to patients treated within the clinical service	AA, CbD, MCR	1
Can supervise the training of SACT prescribing	CbD, MCR, MSF,TO	1,3
Can participate in the evaluation of a new therapy as an investigator for a clinical trial	CbD, MCR, MSF	1

Competencies in Systemic Cytotoxic or Immunosuppressive Therapy

Name:

Level	Summary description
	Foundation and CMT
0	Can recognise that a patient is receiving systemic cytotoxic or immunosuppressive therapy and alerts senior team members appropriately. No prescription can be undertaken
1	Recognises important adverse effects of cytotoxic or immunosuppressive therapy and recognises that these agents may need to be stopped
	Specialty Training
2	Can undertake a review of a patient receiving systemic anticancer therapy and can authorise the next cycle of treatment to proceed. All prescription requires countersignature
3	Can continue a prescription for systemic anticancer therapy without countersignature but cannot prescribe the first cycle of systemic chemotherapy
4	Can initiate and prescribe systemic anticancer therapy for patients with a range of malignancies, while operating within local guidelines. Can demonstrate appropriate involvement of the patient and carers in decision-making regarding treatment
5	Can demonstrate competence in prescribing at a level expected of a consultant and can make treatment decisions on all appropriate patients including those that fall outside of departmental guidelines by virtue of a rare tumour type or unique patient factors

I confirm that the above named trainee has demonstrated all competencies required to achieve:

Level 0 / 1 / 2 / 3 / 4 / 5 competency (please circle appropriate level)

I have reviewed the required assessment evidence as documented in the curriculum for Medical Oncology.

Signed: Designation:

Date:

6. Acute Oncology

6.1 Management of patients with carcinoma of unknown primary

Manage patients with carcinoma of unknown primary within a multidisciplinary team		
Knowledge	**Assessment Methods**	**GMP**
Can define the patterns of clinical presentation of a patient with carcinoma of unknown primary/origin (CUP)	CbD, SCE	1
Can define the tumour histopathological features that correlate with response to therapeutic intervention	CbD, SCE	1
Can define the role of tumour markers in the diagnostic investigation of patients with CUP	CbD, SCE	1
Can define the epidemiology and risk factors for CUP	CbD, SCE	1
Can define the sensitivity and limitations of investigations including; immunohistochemistry, imaging modalities, gene profiling	CbD, SCE	1
Skills and Behaviour		
Takes a focused history that covers all relevant aspects of patient history, including identification of risk factors, exploring the presenting symptoms of a patient with a suspected malignancy, and can assimilate information from other sources including family members and healthcare professionals	CbD, MCR, mini-CEX, MSF	1,3
Performs clinical examination of the patient that is thorough, sensitive, focused and systematic in approach that is general and systems-based, to investigate the possible originating site and complications of the disease and performed in a timely manner	CbD, MCR, mini-CEX, MSF	1
Elicits physical signs with accuracy and precision	CbD, mini-CEX, MSF, PS	1
Demonstrates accurate diagnostic reasoning and formulates an appropriate differential diagnosis to inform a plan of investigation to explore the most likely source of the cancer	CbD, MCR, mini-CEX	1
Implements and interprets correctly appropriate cost-effective diagnostic and prognostic investigations	CbD, MCR, mini-CEX, MSF	1
Assesses accurately the physical, emotional, psychological and social needs of the patient	CbD, MCR, mini-CEX, MSF, PS	1,4
Writes clear, legible, structured and comprehensive documentation that is dated and signed and includes the clinical history, plan of investigation, plan of management and outlines the relevant communications with patients, relatives and colleagues	CbD, MCR, mini-CEX, MSF, PS	1,2,3
Plans and institutes appropriate anticancer therapy within the setting of a multidisciplinary team and addresses the control of presenting symptoms through the use of supportive therapies	CbD, MCR, mini-CEX, MSF	1,3
Assesses the impact of the diagnosis on the patient and their relatives and to provide appropriate support, particularly in the face of uncertainty relating to the diagnosis and site of origin	CbD, MCR, mini-CEX, MSF, PS	1,4
Assesses the patients understanding of their condition and provides education and information appropriate to the clinical situation	CbD, MCR, mini-CEX, MSF, PS	1,4
Provides an accurate evaluation of the patient's condition and conveys the diagnosis and expectations to the patient and their family	CbD, MCR, mini-CEX, MSF, PS	1,3,4
Demonstrate an analytical and scientific approach to problem-solving and shows a range of problem-solving skills	MSF, PS	1

6.2 Paraneoplastic syndromes, complications of disease and co-morbidity

Define, recognise, investigate and manage paraneoplastic syndromes, complications of disease and co-morbidity		
Knowledge	**Assessment Methods**	**GMP**
Can define the remote effects of cancer, as a non-metastatic manifestation in every organ system	CbD, SCE	1
Can define the cancers most commonly associated with the individual syndromes (e.g. hypercalcaemia, ACTH, SIADH, Eaton-Lambert, cerebellar syndrome)	CbD, SCE	1
Can describe the presenting clinical features of paraneoplastic syndromes and other complications of disease	CbD, SCE	1
Can define the approach to management of each paraneoplastic condition or syndrome	CbD, SCE	1
Can describe the approach to diagnostic investigation of the underlying malignancy in patients that present with non-metastatic manifestations	CbD, SCE	1
Can define the presentation and usual management of concurrent clinical problems that may arise in patients with cancer	CbD, SCE	1
Can discuss how co-morbid conditions may influence the efficacy and toxicity of cancer treatment	CbD, SCE	1
Can discuss how anticancer therapy can exacerbate a co-morbid condition during or after the completion of therapy	CbD, SCE	1
Can define the specific co-morbidities which may be a contraindication to surgery, radiotherapy, chemotherapy, immunotherapy or targeted therapies in specific cancers	CbD, SCE	1
Can discuss approaches and tools for assessing the impact of co-morbidity on outcomes in patients with cancer	CbD, SCE	1
Skills and Behaviour		
Recognises, investigates, diagnoses and delivers successful management for the following conditions that can present as co-morbidity, or complication of disease in a patient with cancer: • Anaemia, bleeding disorders, coagulopathies • Anxiety and depression, psychoses • Autonomic neuropathy • Chronic kidney disease • COPD and common respiratory disorders • Dermatological problems • Diabetes mellitus in the context of patient prognosis and goals of treatment • Fractures, osteoporosis, paget's disease • Hyper and hypothyroidism, adrenal failure, pituitary failure • Ischaemic heart disease, heart failure, arrhythmias, hypotension • Liver failure • Patients with pre-existing chronic pain • Patients with pre-existing drug dependence • Peripheral neuropathy • Peripheral vascular disease • Thromboembolic disease	CbD, MCR, mini-CEX, SCE	1,2,3
Takes a focused history that covers all relevant aspects of patient history, including identification of risk factors, exploring the presenting symptoms	CbD, MCR, mini-CEX,	1,3

of a patient with a suspected malignancy or paraneoplastic manifestation	MSF	
Performs clinical examination of the patient that is thorough, sensitive, focused and systematic in approach that is general and systems-based, to investigate the possible underlying cancer in a patient with a possible paraneoplastic manifestation or the impact of a co-morbid medical condition	CbD, MCR, mini-CEX, MSF	1
Elicits physical signs with accuracy and precision	CbD, mini-CEX, MSF, PS	1
Demonstrates accurate diagnostic reasoning and formulates an appropriate differential diagnosis to inform a plan of investigation to explore the most likely cause of the presentation	CbD, MCR, mini-CEX	1
Implements and interprets correctly appropriate cost-effective diagnostic and prognostic investigations	CbD, MCR, mini-CEX, MSF	1
Assesses accurately the physical, emotional, psychological and social needs of the patient	CbD, MCR, mini-CEX, MSF, PS	1,4
Writes clear, legible, structured and comprehensive documentation that is dated and signed and includes the clinical history, plan of investigation, plan of management and outlines the relevant communications with patients, relatives and colleagues	CbD, MCR, mini-CEX, MSF, PS	1,2,3
Considers how cardiovascular, respiratory, gastrointestinal, haematological, autoimmune, rheumatological, neurological, infectious, endocrine, dermatological, and psychiatric co-morbid conditions and their treatment can affect a patient's ability to receive a specific anticancer therapy	CbD, MCR, mini-CEX, MSF, PS	1,4
Always recognises and anticipates life-threatening conditions	CbD, mini-CEX, MSF, PS	1,2
Demonstrates an analytical and scientific approach to problem-solving and shows a range of problem-solving skills	CbD, mini-CEX, MSF, PS	1
Works within a multidisciplinary team and always recognises the need and makes appropriate referrals to other health care professionals and coordinates the management of co-morbidities with other specialists	CbD, mini-CEX, MSF, PS	1,3

6.3 Infections in patients with cancer

Recognise, diagnosis, investigate and manage infections in patients with cancer		
Knowledge	**Assessment Methods**	**GMP**
Can discuss the principles of infection control as defined by the GMC	CbD, MCR, mini-CEX	1
Can discuss the principles of preventing infection in high risk groups (e.g. managing antibiotic use to reduce Clostridium difficile infection), including understanding the local antibiotic prescribing policy	CbD, MCR, SCE, mini-CEX	1
Can discuss the role of notification of diseases within the UK and identify the principle notifiable diseases for UK and international purposes	CbD, MCR, SCE, mini-CEX	1
Can discuss the role of the Health Protection Agency and Consultants in Health Protection (previously Consultants in Communicable Disease Control – CCDC) and the local authority in relation to infection control	CbD, MCR, SCE	1
Can define the indications for secondary prophylaxis of neutropenic sepsis and use of antibiotics and growth factors in secondary prophylaxis	CbD, SCE	1,2
Can define the requirements for supportive therapy including; fluid therapy, nutritional support, inotropic support and the indications for intensive care	CbD, SCE	1,2
Skills and Behaviour		
Formulates strategies for the use of antibiotic therapy for treating infections in patients with malignancy or receiving myelosuppressive therapy	CbD, MCR, mini-CEX	1,2
Takes a focused history that covers all relevant aspects of patient history, including identification of risk factors for infection, exploring the presenting symptoms of a patient with a serious infection	CbD, MCR, mini-CEX, MSF	1,3
Performs clinical examination of the patient that is thorough, sensitive, focused and systematic in approach that is general and systems-based, to investigate the possible origin of a serious infection in a patient with cancer	CbD, MCR, mini-CEX, MSF	1
Elicits physical signs with accuracy and precision	CbD, mini-CEX, MSF	1
Demonstrates accurate diagnostic reasoning and formulates an appropriate differential diagnosis to inform a plan of investigation to identify the causative organism and impact on the patient	CbD, MCR, mini-CEX	1
Implements and interprets correctly appropriate cost-effective investigations to confirm infection and impact on body systems	CbD, MCR, mini-CEX, MSF	1
Implements appropriate supportive therapy including; fluid therapy, nutritional support, inotropic support and the indications for intensive care	CbD, MCR, mini-CEX, MSF	1
Counsels patients on matters of infection risk, transmission and control	CbD, MCR, mini-CEX	2,3
Recognises the potential for infection in patients being treated for cancer and always recognises and anticipates life-threatening conditions	CbD, MCR, mini-CEX	1,2
Engages actively in local infection control procedures, infection control monitoring and reporting processes	CbD, MCR	1,2
Prescribes antibiotics according to local antibiotic guidelines and works with microbiological services where this is not possible	CbD, MCR, mini-CEX	1,2
Uses antibiotics and growth factors appropriately in secondary prophylaxis of neutropenic sepsis	CbD, SCE	1,2
Recognises the potential for cross-infection in clinical settings	CbD, MCR, mini-CEX	1,2
Practices aseptic technique whenever relevant	MCR, mini-CEX, MSF	1,2
Encourages all staff, patients and relatives to observe infection control principles	CbD, MCR, MSF	1,2,3

6.4 Complications of therapy

Define, recognise and competently manage the acute and long-term complications of each treatment modality employed in the management of patients with malignant disease		
Knowledge	**Assessment Methods**	**GMP**
Can define the immediate complications of anticancer therapies (e.g. anaphylaxis, hypotension, hypertension, anticholinergic etc.)	CbD, SCE	1,2
Can define the presenting features of acute and chronic organ dysfunction following therapy (e.g. renal, bowel, endocrine, neurological, ocular) and impact on each body system	CbD, SCE	1,2
Can define the impact on fertility by chemotherapy and other anticancer therapies	CbD, SCE	1
Can define the risk of treatment-induced secondary malignancies and leukaemia	CbD, SCE	1,2
Can define the long term cardiac, renal, pulmonary and skeletal complications of anticancer therapies	CbD, SCE	1,2
Can define the manifestation of acute toxicities of chemotherapy following extravasation	CbD, SCE	1,2
Can discuss the approach to managing a drug administration error	CbD, SCE	1,2
Can discuss the correct disposal of chemotherapeutic agents	CbD, SCE	1,2
Skills and Behaviour		
Takes a focused history that covers all relevant aspects of patient history, including identification of complications of anticancer therapy manifesting as presenting symptoms in a patient with cancer	CbD, MCR, mini-CEX, MSF	1,3
Performs clinical examination of the patient that is thorough, sensitive, focused and systematic in approach that is general and systems-based, to investigate the possible impact of toxicity of an anticancer therapy	CbD, MCR, mini-CEX, MSF	1
Elicits physical signs with accuracy and precision	CbD, mini-CEX, MSF	1
Demonstrates accurate diagnostic reasoning and formulates an appropriate differential diagnosis to inform a plan of investigation to identify the impact on the patient and body systems	CbD, MCR, mini-CEX	1
Implements and interprets correctly appropriate cost-effective investigations to determine the impact on body systems	CbD, MCR, mini-CEX, MSF	1
Identifies accurately and manages the toxicities of therapy	CbD, mini-CEX, MSF	1,2
Writes clear, succinct and well-structured documentation of adverse effects and instructions for others in anticipation of complications detailing all appropriate information	MSF, PS	1,2,3
Always recognises and anticipates life-threatening conditions	CbD, mini-CEX, MSF, PS	1,2
Participates in adverse drug event reporting mechanisms	CbD, MCR, mini-CEX	1,2
Always has a calm, systematic approach and appropriate outcome following emergency situations	CbD, mini-CEX, MSF, PS	1,2

6.5 Oncological emergencies

Recognise, investigate and manage oncological emergencies		
Knowledge	**Assessment Methods**	**GMP**
Can define the presenting features of medical emergencies that are common in patients with cancer, whether as a feature at diagnosis or as a complication of the disease or treatment	CbD, SCE	1
Can define the indications for intensive care in the management of metabolic, infective, neurological and other complications of cancer	CbD, SCE	1,2
Can define the approach to investigation, confirmation of diagnosis and plan of management of oncological emergencies	CbD, SCE	1,2
Skills and Behaviour		
Recognises, investigates, diagnoses and delivers successful management for the following conditions that can present in a patient with cancer: • Acute biventricular failure • Acute confusional state • Acute dystonia, oculogyric and serotonergic crisis • Acute renal failure • Acute suicidal ideation • Acute urinary retention • Anaphylaxis • Bronchospasm • Cardiac tamponade • Cardiopulmonary arrest • Disseminated intravascular coagulation (DIC) • Encephalopathy • Epileptic fit • Hypercalcaemia • Hypoglycaemia • Hypomagnesaemia • Massive haemorrhage possibly secondary to thrombocytopenia • Neuroleptic malignant syndrome • Overdose of medication • Overwhelming pain and distress • Pathological fractures • Pneumothorax • Predictable complications of therapeutic inventions or procedures including advanced life support, if appropriate • Pulmonary embolism • Septic shock • Spinal cord compression • Stridor • SVC obstruction • Terminal delirium/agitation • Tumour lysis syndrome	CbD, mini-CEX, SCE, MCR	1,2,3
Takes a focused history that covers all relevant aspects of patient history, including identification of a situation requiring immediate intervention in a patient with cancer	CbD, MCR, mini-CEX, MSF	1,3

Performs clinical examination of the patient that is thorough, sensitive, focused and systematic in approach that is general and systems-based, to investigate the possible cause of an acute presentation	CbD, MCR, mini-CEX, MSF	1
Elicits physical signs with accuracy and precision	CbD, mini-CEX, MSF	1
Demonstrates accurate diagnostic reasoning and formulates an appropriate differential diagnosis to inform a plan of investigation to identify the impact on the patient and body systems	CbD, MCR, mini-CEX	1
Implements and interprets correctly appropriate cost-effective investigations to determine the impact on body systems	CbD, MCR, mini-CEX, MSF	1
Always recognises and anticipates life-threatening conditions	CbD, mini-CEX, MSF, PS	1,2
Demonstrates an analytical and scientific approach to problem-solving and shows a range of problem-solving skills	CbD, mini-CEX, MSF, PS	1
Implements appropriate management of the emergency situation including the prescription of drugs to treat the problem and palliate the patient symptoms	CbD, mini-CEX, MSF, PS	1,2
Always has a calm, systematic approach and appropriate outcome following treatment	MCR, MSF, PS	1,2,3
Works within a multidisciplinary team and always recognises the need and makes appropriate referrals to other health care professionals	MCR, MSF, PS	1,3

7. Supportive Therapies and Palliative Care

7.1 Management of pain

Describe the scientific basis of the perception of pain and ability to prescribe analgesia appropriately		
Knowledge	**Assessment Methods**	**GMP**
Can define the pathophysiology of pain including pain pathways	CbD, SCE	1
Can describe the physiology, pathophysiology and neuropharmacology of pain including peripheral and central sensitisation	SCE, MCR	1,2
Can describe pain assessment tools used in clinical practice and research	CbD, SCE, mini-CEX	1
Can describe different characterisations of pain; nociceptive, visceral, neuropathic, incident, myofascial	SCE	1
Can describe the range of opioids available, their relative benefits and indications in patients with cancer	CbD, SCE	1,2
Can define the long term effects of opioid therapy	CbD, SCE	1,2
Can describe the indications for an appropriate use of opioid switching	CbD, MCR, mini-CEX, SCE	1,2
Can describe the management of side effects of drugs used in symptom control in patients with cancer	CbD, MCR, mini-CEX, SCE	1,2
Can discuss the drug treatment of pain, including the WHO analgesic ladder and appropriate use of adjuvant drugs	CbD, MCR, mini-CEX, SCE	1,2
Can discuss the non-drug treatment of pain, including TENS, acupuncture, physiotherapy, immobilisation etc.	CbD, MCR, mini-CEX, SCE	1,2,3
Can describe the common nerve blocks and other neurosurgical procedures	CbD, MCR, SCE	1,2,3
Can describe the principles of spinal delivery of analgesics	CbD, MCR, SCE	1,2,3
Can describe the psychological interventions in pain management	CbD, MCR, SCE	1,2,3
Can describe the recognised pain syndromes	CbD, MCR, SCE, mini-CEX	1
Skills and Behaviour		
Assesses accurately the needs of the patient and their requirements for symptom control	CbD, mini-CEX, MSF, PS	1
Initiates the appropriate prescription of analgesic agents	CbD, MCR, mini-CEX	1,2
Adopts assessments and interventions that are inclusive, respectful of diversity and patient-centred	CbD, MCR, mini-CEX, MSF	1
Identifies and manages the side effects of treatment with analgesia	CbD, mini-CEX, MSF	1,2
Demonstrates an appropriate attitude towards patients and their symptoms	CbD, mini-CEX, MSF, PS	1
Takes an appropriate clinical history and performs relevant physical examination to assess the nature and impact of pain in a patient with cancer	CbD, MCR, mini-CEX	1,3
Demonstrates an appropriate choice of treatment modality to produce pain relief including and non-pharmacological treatments such as; surgery, nerve block, TENS, chemotherapy and radiotherapy	CbD, MCR, mini-CEX	1,3
Appropriate referral to and shared care with pain management service	CbD, MCR, mini-CEX	1,3
Management of epidural / intrathecal catheters (using local guidelines)	DOPS, CbD, MCR	1,2

7.2 Antiemetic agents

Define the mechanism of action and pharmacology of antiemetic agents and implement appropriate prescription		
Knowledge	**Assessment Methods**	**GMP**
Can define the mechanism of action of antiemetic agents	CbD, SCE	1
Can define the interactions of antiemetic agents with other drugs and adverse effects of drug administration	CbD, SCE	1
Can discuss the choice of antiemetic regimen relevant to the chemotherapy regimen being administered	CbD, SCE	1
Skills and Behaviour		
Demonstrates consideration of the patients age, status, cultural and social circumstances when determining treatment	CbD, MCR, mini-CEX, MSF, PS	1
Chooses the appropriate use of drugs for the diagnosis with extensive knowledge of their interactions and adverse effects and ability to always prescribe, calculate dosages and choose the appropriate method and route of delivery	CbD, MCR, mini-CEX, MSF, PS	1,2
Always demonstrates a calm, systematic approach and appropriate patient outcome	CbD, MCR, mini-CEX, MSF, PS	1,2
Works within a multidisciplinary team and always recognises the need and makes appropriate referrals to other health care professionals	CbD, MCR, mini-CEX, MSF, PS	1,3
Always recognises or anticipates complications and acts appropriately	CbD, MCR, mini-CEX, MSF, PS	1,2

7.3 Growth factors

Define the mechanism of action, indications, interactions, contraindications of growth factors and their appropriate prescription		
Knowledge	**Assessment Methods**	**GMP**
Can define the activity and indications for the use of cytokines and haematopoietic growth factors, such as erythropoietin and G-CSF in patient with cancer	CbD, SCE	1
Can define the indications for the use of growth factors in secondary prophylaxis	CbD, SCE	1
Can define the adverse effects of growth factors and their management	CbD, SCE	1,2
Can discuss the therapeutic combination of growth factors with chemotherapy and factors that influence the sequence, timing of administration and successful delivery of planned treatment	CbD, SCE	1
Skills and Behaviour	Mini	
Prescribes growth factors in appropriate circumstances	CbD, MCR, mini-CEX	1,2
Recognises the adverse effects of growth factors and institute appropriate corrective management	CbD, MCR, mini-CEX	1,2

7.4 Blood product support

Demonstrate appropriate use and prescription of blood product transfusion		
Knowledge	**Assessment Methods**	**GMP**
Can define the indications for, complications and management of reactions of red-cell and platelet transfusions	CbD, SCE	1,2
Can define the potential problems in the safe delivery of blood products in a clinical setting	CbD, SCE	1,2
Can discuss the acute presentation of a transfusion reaction	CbD, SCE	1,2
Can discuss the preparation and administration options of blood products	CbD, SCE	1,2
Skills and Behaviour		
Assesses accurately the blood product requirements of a patient with cancer, including the influence of planned treatments including radiotherapy	CbD, MCR, mini-CEX	1,2
Prescribes blood produces appropriately and without error or omission	CbD, MCR, mini-CEX	1,2
Recognises and implements appropriate management for an acute transfusion reaction, including arranging further investigations of the patient	CbD, MCR, mini-CEX	1,2
Always considers the influence of the patient's age, status, beliefs, cultural and social circumstances when determining their requirement for blood product support	CbD, MCR, mini-CEX, PS	1,4

7.5 Nutritional support

Assess, plan and implement appropriate nutritional support for patients with cancer		
Knowledge	**Assessment Methods**	**GMP**
Can define the indications for and complications of enteral and parenteral nutritional support in patient with cancer	CbD, SCE	1
Can define the causes of malnutrition in a patient with cancer	CbD, SCE	1
Can define the approach to performing an assessment of the patients nutritional requirement	CbD, SCE	1
Can discuss the approaches to nutritional supplementation in a patient with cancer who may have problems with swallowing or absorption	CbD, SCE	1
Can define the role of the dietician in relation to patient with cancer	CbD, SCE	1
Skills and Behaviour		
Assesses the patient's requirement for nutritional support and refers to specialist dieticians appropriately	CbD, MCR, mini-CEX, PS	1
Plans appropriate nutritional therapy or support whilst considerate of the patients age, status, cultural and social circumstances when determining treatment	CbD, MCR, mini-CEX, PS	1,4
Always makes the appropriate use of nutritional supplementation or support, with consideration of interactions with drugs and adverse effects and ability to always prescribe, calculate dosages and choose the appropriate method and route of delivery	CbD, MCR, mini-CEX, PS	1,2
Always considerate of the patients age, status, cultural and social circumstances when determining interventions	mini-CEX, MSF, PS	1
Works within a multidisciplinary team and always recognises the need and makes appropriate referrals to other health care professionals	MSF	1,3

7.6 Rehabilitation

Assess the requirements for rehabilitation in progressive illness and can initiate rehabilitation for patients receiving anticancer therapy or palliative care		
Knowledge	**Assessment Methods**	**GMP**
Can describe principles of rehabilitation related to illnesses with gradually increasing disability	CbD, MCR, SCE	1,2,3
Can describe the concept of maintenance of function through exercise and therapies	CbD, MCR	1
Can describe the facilities available for rehabilitation in the treatment centre and appliances that can be provided for use in the home	CbD, MCR, SCE	1,2
Can discuss the specific skills of allied health professionals and disease/cancer site specific specialist nurses in rehabilitation	CbD, MCR, SCE	1,2,3
Can define concepts such as self transcendence in the engagement with disability and suffering	CbD, MCR	1,2
Can define the role of physical therapy, particularly in the postoperative setting (e.g. axillary dissection, amputation)	CbD, SCE	1
Can define the role of occupational therapy, speech or swallowing therapy	CbD, SCE	1
Can discuss the multidisciplinary management of the rehabilitation of patients with cancer	CbD, SCE	1
Can discuss the role of complimentary therapies in the rehabilitation of patients with cancer	CbD, SCE	1
Skills and Behaviour		
Recognises the possibility and implications of changing goals during the course of an illness	CbD, MCR	1,3
Assesses accurately the patients needs and their expectations	CbD, mini-CEX, MSF, PS	1
Writes clear, legible and comprehensive documentation in an orderly and systematic fashion including all relevant communications with patients, relatives and colleagues and detailing the plan for rehabilitation	CbD, mini-CEX, MSF, PS	1,2,3
Can deal with patient or family conflict in relation to unrealistic goals	CbD, MCR, mini-CEX	1,3
Uses a disablement centre for artificial limbs and appliances	CbD, MCR	1,3
Always considers the patients age, status, cultural and social circumstances when determining treatment	CbD, mini-CEX, MSF, PS	1
Demonstrates appropriate choice and cost-effective use of rehabilitation methods for the diagnosis	CbD, mini-CEX, MSF, PS	1
Adopt assessments and interventions that are inclusive, respectful of diversity and patient-centred	CbD, MCR, mini-CEX, MSF	1
Acknowledges the particular challenges of mental and cognitive frailty in patients with brain metastasis and cancer of the central nervous system	CbD, MCR	1,2

8. Training in Site-Specific Tumour Types

What are the site-specific tumour types?
Each trainee will spend a period of time attached to a team that will have a specialist interest and furthermore, clinical attachments may be completed in a random order within a training programme or rotation. To achieve a Certificate of Completed Training (CCT) all required tumour types must have been assessed and the trainee certified as competent by a supervisor. By adopting a modular approach there is a different weighting of importance to each of the tumour types. These are:

Essential tumour types – all required for minimum 6 months WTE (Whole-Time Equivalent)
- Breast cancer
- Colorectal and anal cancer
- Lung cancer and thoracic malignancies
- Upper GI cancer and Hepatobiliary (oesophagus, gastric, liver, biliary, pancreas and neuroendocrine tumours)
- Intensive therapies (see below)

Essential tumour types – all required for minimum 4 months WTE
- Urological cancers (renal, bladder, prostate)
- Gynaecological cancer
- Skin (melanoma)

Intensive therapies – 6 months WTE made up from any combination of the following:
- Leukaemia
- Multiple myeloma
- Lymphoma
- Germ cell tumours
- Sarcoma (intensive therapies)
- High dose chemotherapy and bone-marrow transplantation

Optional tumour types:
- Immunosuppression-associated malignancies
- Head & neck cancer
- Central nervous system cancer
- Endocrine system tumours

How much time do trainees spend in each tumour type?
Firstly, it is important to emphasise that each tumour type may not necessarily correlate with a training post and sometimes posts are combined. For example, a trainee in a post that offers simultaneous training in lung and breast cancer will be required to undertake 12 months training in that post during their entire training programme (not necessarily continuous). All required tumour types must be completed to the defined level of competence.

Each trainee should spend the equivalent of 6 months full-time training in the essential tumour types. This will total 42 months of full-time training. The time in training is based upon satisfactory assessment of outcome by a supervisor. The remaining 6 months allows trainees flexibility to develop their experience in a particular area before CCT.

It is essential that trainees achieve competency in the required outcomes upon completion of a tumour type. For some trainees, they may be required to undertake additional periods of training to address identified deficiencies and to achieve competency.

8.1 Training in a site-specific tumour type

Manage patients with cancer within a site-specific multidisciplinary team		
Clinical task	**Relevant Modules**	**Module**
Take a relevant and detailed patient history, recognising significance of presenting symptoms and the underlying heritable predisposition, epidemiology and risk factors	Professional skills	1.1
Perform accurate clinical examination of a patient with cancer, recognising diagnostic features and complications of the disease and treatment	Professional skills	1.2
Formulate an appropriate plan for cost-effective diagnostic and prognostic investigations, including staging	Professional skills	1.3
Apply foundation understanding of genomics to the investigation of a patient with cancer	Professional skills	1.4
Formulate a plan of management including anticancer therapy with consideration of the patients age, status, cultural and social circumstances	Professional skills	1.5
Review and modify the plan of investigation or management based upon consideration of the patients age, co-morbidity or special situations such as pregnancy	Professional skills	1.6
Obtain valid consent from a patient for a planned treatment or investigation including a clinical trial	Professional skills	1.7
Communicate information to patients and their carers relating to the diagnosis (including breaking bad news), explaining clinical data and future plans	Professional skills	1.8
Assess and manage the psychosocial aspects of cancer and the impact of the diagnosis on patients, their relatives and on health care professionals involved in the care of patients with cancer	Professional skills	1.9
Demonstrate the safe use of drugs necessary to treat patient with cancer, including non–medication based therapeutic and preventative indications	Systemic anticancer therapies	5.1
Completes safe prescription of systemic anticancer therapy	Systemic anticancer therapies	5.2
Define, recognise, investigate and manage paraneoplastic syndromes, complications of disease and co-morbidity	Acute oncology	6.2
Define, recognise and competently manage the acute and long-term complications of each treatment modality employed in the management of patients with malignant disease	Acute oncology	6.4
Recognise, investigate and manage oncological emergencies	Acute oncology	6.5
Formulate an appropriate plan for follow up, surveillance, screening and survivorship	Professional skills	1.10
Work within a multi-disciplinary team to manage patients requiring palliative and end of life care and to support patients whilst facilitating End of Life choices including advance care planning	Professional skills	1.11

8.2 Guidance for assessment in a site-specific tumour type

Whilst it is recognised that trainees will complete their training in a random order of site-specific tumour types, the end product of each period must be competence judged against the curriculum defined learning outcomes. Trainees should carefully review section 1 (Professional skills) at the commencement of their attachment and consider their strengths and areas of weakness. Such a discussion could be incorporated in an appraisal meeting with a clinical supervisor at the beginning of an attachment.

During each attachment, trainees should consider using the assessment tools (mini-CEX and CbD) to gain feedback on performance and to identify areas of weakness. The ARCP grid defines only the minimum requirements for review during the ARCP process. Therefore, trainees could undertake many more and choose which assessment events to include in their portfolio. Indeed, documenting the progression of learning and improvement over time is as important as certifying performance on a single occasion.

Some of the individual learning outcomes in section 1 (Professional skills) within specific modules (1.1-1.11) may not be achieved in the early part of training, or within a specific tumour type. As a result, such objectives should be clearly identified as targets for training to carry forward as goals into the next clinical attachment. Competence in ALL learning outcomes is required to achieve CCT at the end of ST6.

Different site-specific tumour types will provide a varying opportunity for exposure to acute oncology cases and situations. For example, carcinoma of unknown primary is more common in lung, colorectal, gynaecological oncology that some other sites. Therefore, acute oncology training will progress across the 4 years of training as a longitudinal module. As such, progress against learning outcomes should be reviewed each year and targets for training the following year identified and carried forwards.

Trainees can record their evidence of achievement of individual learning outcomes in their e-portfolio. These can then be reviewed by the clinical supervisor at the end of a clinical attachment, resulting in a clinical supervisors report. The clinical supervisors' reports that cover 12 months of training are reviewed by the educational supervisor, resulting in an educational supervisors report with agreed targets for training in the following year as appropriate. The ARCP panel will have access to the e-portfolio, clinical supervisor and educational supervisor reports.