Guidance on implementation of the 2017 Medical Oncology curriculum

Background

The medical oncology curriculum has been reviewed and rewritten and was approved by the GMC in 2017. The individual competencies and defined knowledge, skills and behaviours have changed very little in this new version of the curriculum. The 2010 version of the curriculum used a structure focused more around communication and clinical skills. As such, there was more emphasis on the clinical modules, which all had the same competencies as core components but during assessment, more focus was placed on the clinical modules and not the essential communication and clinical skills. This was somewhat confusing in practice as these competencies did not align with the daily activities of clinicians working in the specialty. In the revised version, section 1 details all the professional competencies required in modern practice and therefore these will be covered during each clinical attachment and 'tumour type'. This ensures that such competencies not only align with the clinical tasks undertaken in practice but furthermore, will be assessed longitudinally throughout training.

In the last five years there has been a development within the specialty called 'Acute Oncology'. This arose through a national confidential enquiry relating to treatment-related deaths and as a result new consultant posts were created with specific time in job plans to provide an Acute Oncology service. Trainees, provided feedback that such competency was not in the curriculum. Of course, it has always been there but was not under a specific heading. In the revised curriculum, Acute Oncology contains; carcinoma of unknown primary, management of oncological emergencies, complications of therapy, infections and managing co-morbidity and complications of disease. All of these components were in the 2010 version but not as well signposted. This aligns the structure of the curriculum with clinical activities and makes more sense to trainees and trainers and specifically aligns with ARCP requirements and assessment evidence. This change therefore delivers better curriculum congruence.

Changes to the curriculum

The separation of knowledge, skills and behaviours is sometimes rather artificial. For this version, the skills and behaviours have been combined and therefore individual competencies have been re-written with an active verb and are now measurable. This improves the quality, objectivity, measurability and therefore delivery of the curriculum as high quality training.

A number of Medical Oncology competencies have been revised to ensure that trainees are explicitly aware of and respond to the needs of the older patient. Although this was included in the 2010 version it was very generalised and there was specific reference to identifying patients at risk of geriatric syndromes such as falls, incontinence and cognitive impairment. This group of patients were not explicitly referenced in the 2010 curriculum. Sections 1.6 and 6.2 reflect these improvements.

The only section that is new and not covered previously relates to genomic medicine (section 1.4). Whilst the knowledge component was in the 2010 version, there are new competencies around obtaining consent for germ line testing of patients. There is a national initiative that all at risk patients will now be tested by Medical Oncologists working within a multidisciplinary team. Existing consultants will be taking on this service in the near future and therefore any new consultants will be expected to deliver this service in their new posts. As a result, trainees are motivated to acquire the relevant training (all online as outlined in section 1.4) and therefore we do not anticipate there being any barriers to delivering this additional training by implementing this new version of the curriculum.

There have been a number of national guidance documents relating to the safe prescription of systemic anticancer therapies (detailed in section 5.2). This version of the curriculum includes revisions that fully comply with these recommendations. The previous version delivered good coverage, but each objective has been reviewed and edited to ensure congruence and to align with assessment and tasks undertaken in practice. The requirements for objective assessment around these competencies have been improved and included as ARCP requirements. This provides better and more detailed assessment of competence around this safety issue.

A new section on end of life care has been added with reference to the guidance document from the Palliative Care SAC (2014).

Finally, we have made the following changes in line with other curricula:

- Multiple Consultant Report (MCR) added to the assessment methods and blueprinted to the syllabus
- Quality Improvement Project Assessment Tool (QIPAT) added to assessment methods and mapped to the syllabus as an alternative tool to the Audit Assessment (AA)
- Generic sections on Good Medical Practice and Equality and Diversity have been updated in line with policy and legislation.

Mapping of the changes to the previous version of the curriculum and references are given in Appendix A. The 2017 curriculum and ARCP decision aid will apply to all new trainees starting in training from August 2017 and those transferring from the previous curriculum. This guidance and the relevant documents are available on the JRCPTB specialty webpage.

For trainers, if you have questions relating to this implementation, please contact Graham Dark, curriculum lead on the Specialty Advisory Committee (SAC) via graham.dark@ncl.ac.uk.

Implementation plan for training programmes

These notes should be read in conjunction with section 4.1 (p6) of the 2017 curriculum. There are no anticipated barriers to the organisation and delivery of this version of the curriculum compared to the current 2010 version.

The main differences are:

- Upper GI and Hepatobilary cancers are grouped together and represent a 6 month WTE tumour type
- Urological cancer is now a mandatory requirement (the last curriculum suggested likely to become mandatory), this includes prostate, renal and bladder cancer
- Skin cancer, likely to be mainly melanoma, is now mandatory and reflects the change in clinical practice over the last 5 years and introduction of new therapeutic agents

Note that three trainees could have a mini rotation around urology, gynae and skin cancer with each post being 4 months. This would then represent 12 months of a larger rotation.

Most if not all training programmes in the UK already provide these training opportunities and therefore no barriers to change are anticipated.

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.

It is expected that all mandatory components will be completed in 42 months (rather than 36 in the 2010 version), which reflects the addition of skin and urology into the mandatory requirement. This is a reflection of modern clinical practice. It also leaves 6 months for trainees to spend more time in an area of interest or returning to a tumour type that requires more experience or competence.

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 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 and personal targets for training identified to carry forwards into the next part of the training programme as necessary. Some aspects may carry more weighting than others and may required targeted training for some trainees.

Implications for the Specialty Certificate Examination

In view of the change in structure of the curriculum this will be reflected in the classification of questions for the exam. Questions will be classified in sections that correlate to the curriculum sections. The revised blueprint will be discussed at the exam board for approval for the 2018 diet and will be available on the MRCP/SCE website for candidates.

Implications for ARCP

In the new curriculum, 1 mini-CEX and 1 CbD should be undertaken in each tumour type (every 6 months). In each 12 month period, an additional CbD and mini-CEX should be undertaken for Acute Oncology & Supportive therapies and another of each for prescribing Systemic Anticancer Therapy. Certification of the level of prescribing is required and trainees should attain level 4 to progress each year at ARCP. This change to the ARCP requirements ensures better alignment with the curriculum requirements and will be a more authentic assessment of practice. No barriers to implementation are anticipated. There is no change in the overall number of mini-CEX/CbD and it is important to remember that this is a minimum number and that trainees can do more for formative feedback.

Who will move to the new curriculum?

Trainees that are in ST5 or ST6 can continue on the 2010 version provided they complete training within 24 months of implementation of the 2017 curriculum (ie by September 2019). This is in line with the GMC's regulation that no trainee may remain on an 'old' curriculum for more than two years after implementation. Alternatively trainees may choose to transfer to the new curriculum within the two year transition period.

All other trainees will move to the 2017 version and their next appraisal should identify any gaps in training that require address before the next ARCP review. Any additional gaps can be reviewed as part of the Penultimate Year Assessment (PYA) with discussion with an external assessor.

Please refer to the transition and eportfolio guidance below.

Transition of current trainees

Year 1 trainees (ST3)

- From September 2017 all new trainees and those in ST3 training less than full time must use the 2017 curriculum with all competencies and workplace-based assessment (WPBA) requirements to be completed in line with the curriculum and ARCP decision aid.

Year 2 trainees (ST4)

- ST4 trainees should transfer to the 2017 curriculum with all competencies and WPBA requirements to be completed in line with the 2017 curriculum and ARCP decision aid. The transfer should be recorded at the next ARCP.

Year 3 trainees (ST5)

- Trainees may complete training on the 2010 curriculum providing their CCT date is within two years of implementation of the new curriculum (ie September 2019). Trainees have the option to transfer to the new curriculum at any time.

Year 4 trainee (ST6)

- Trainees may complete training on the 2010 curriculum providing their CCT date is within two years of implementation of the new curriculum (ie September 2019).

Flexible trainees (less than full-time training)

- Any trainee where their CCT date is anticipated to be after September 2019 due to a change in circumstance, such as; a change to less than full-time training, out of programme experience or prolonged illness, will be required to transfer to the 2017 curriculum within the two year transition period. They should discuss the most appropriate time to transfer with their educational supervisor and identify any additional training needs to meet the outcomes of the 2017 curriculum. The transfer should be recorded at the next ARCP.

ePortfolio

- The 2017 curriculum will be added to the ePortfolio account of ST3 and ST4 trainees in September 2017.

- Trainees in ST5+ who are transferring should contact curriculum@jrcptb.org.uk to confirm that the transfer has been agreed with their educational supervisor and the 2017 curriculum will be added to their ePortfolio account.

- It is not mandated that trainees transferring to the new curriculum should mark off on the 2017 curriculum competencies that have already been achieved for previous years against the 2010 curriculum. However, trainees and educational supervisors may find it helpful to add ratings for these competencies in the 2017 curriculum and add "see evidence in previous curriculum" in the comments section.

Dr Graham Dark
Medical Oncology SAC Curriculum Lead
31 August 2017

Appendix A

Mapping of the 2010 curriculum to the new 2017 Medical Oncology curriculum

Section	2010 Curriculum	2017 Curriculum	Rationale
1. Essential communication skills	Communication skills within a multidisciplinary team	incorporated into professional skills modules around history taking, communicating plans of investigation and management etc. 1.1, 1.3, 1.5, 1.7, 1.8	The individual competencies and defined knowledge, skills and behaviours have changed very little in this new version of the curriculum. The 2010 version of the curriculum used a structure focused more around communication and clinical skills. As such, there was more emphasis on the clinical modules, which all had the same competencies as core components but during assessment, more focus was placed on the clinical modules and not the essential communication and clinical skills. This was somewhat confusing in practice as these competencies did not align with the daily activities of clinicians working in the specialty. In the revised version, section 1 details all the professional competencies required in modern practice and therefore these will be covered during each clinical attachment and 'tumour type'. This ensures that such competencies not only align with the clinical tasks undertaken in practice but furthermore, will be assessed longitudinally throughout training.
	Patient centred communication	incorporated into 1.8	
	Breaking bad news	incorporated into 1.8	
	Communication to facilitate counselling	incorporated into 1.8	
	Patient education in a structured interview	moved to 1.8	
	Appraisal	moved to 2.9	
		Take a relevant and detailed patient history, recognising significance of presenting symptoms and the underlying heritable predisposition, epidemiology and risk factors	All of these new modules or sections relate to the clinical tasks undertaken by a clinician in modern practice. The previous structure made little sense and focussed on communication rather than how communication underpins many tasks undertaken in practice. Furthermore, the delivery of training in a specific tumour type is mapped directly to the new professional skills modules and to the ARCP grid. Feedback from trainers is that this makes much more sense, resonates
		Perform accurate clinical examination of a patient with cancer, recognising diagnostic features and complications of the disease and treatment	
		Formulate an appropriate plan	

		for cost-effective diagnostic and prognostic investigations, including staging	with the experience of the trainer undertaking the same tasks in their own practice and therefore delivers greater authenticity as competencies in practice. Moreover, all the professional skills will be assessed for EACH tumour type, ensuring identification of progress for an individual trainee and facilitating more accurate documentation of evidence of that progress and competence at any point in training. Many of the original learning outcomes have been re-worded, re-structured and moved into the new modules The only section that is new and not covered previously relates to genomic medicine (section 1.4). Whilst the knowledge component was in the 2010 version, there are new competencies around obtaining consent for germ line testing of patients. There is a national initiative that all at risk patients will now be tested by Medical Oncologists working within a multidisciplinary team. Existing consultants will be taking on this service in the near future and therefore any new consultants will be expected to deliver this service in their new posts. As a result, trainees are motivated to acquire the relevant training (all online as outlined in section 1.4) and therefore we do not anticipate there being any barriers to delivering this additional training by implementing this new version of the curriculum. A new section on end of life care has been added with reference to the guidance document from the Palliative Care SAC (2014)
		Apply foundation understanding of genomics to the investigation of a patient with cancer (NEW SECTION)	
		Formulate a plan of management including anticancer therapy with consideration of the patients age, status, cultural and social circumstances	
		Review and modify the plan of investigation or management based upon consideration of the patients age, co-morbidity or special situations such as pregnancy	
		Obtain valid consent from a patient for a planned treatment or investigation including a clinical trial	
		Communicate information to patients and their carers relating to the diagnosis (including breaking bad news), explaining clinical data and future plans	
		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	
		Formulate an appropriate plan for follow up, surveillance, screening and survivorship	
		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 (NEW SECTION)	
2. Essential clinical skills	Assessment, Investigation and management of patients	redesigned as 1.3	In the last 5 years there has been a development within the specialty called 'Acute Oncology'. This arose through a national confidential enquiry relating to treatment-related deaths and as a result new consultant posts were created with specific time in job plans to provide an Acute Oncology service. Trainees, provided feedback that such competency was not in the curriculum. Of course, it has always been there but was not under a specific heading. In the revised curriculum, Acute Oncology contains; carcinoma of unknown primary, management of oncological emergencies, complications of therapy, infections and managing co-morbidity and complications of disease. All of these components were in the 2010 version but not as well signposted. This aligns the structure of the curriculum with clinical activities and makes more sense to trainees and trainers and specifically aligns with ARCP requirements and assessment evidence. This change therefore delivers better curriculum congruence. Supportive therapies is a more recognisable term used in practice and the new structure reflects this.
	Pharmacological intervention and the management of disease	Moved to systemic anticancer therapies 5.1	
	Management of acute and long term complications	Moved to acute oncology 6.4	
	Rehabilitation	Moved to supportive therapies 7.6	
	Management of patients with malignancy	redesigned as 1.5	
	Infections in patients with Cancer	Moved to acute oncology 6.3	
	Blood product transfusions	Moved to supportive therapies 7.4	
	Nutritional support	Moved to supportive therapies 7.5	
	Oncological emergencies	Moved to acute oncology 6.5	
	Paraneoplastic syndromes and non metastatic effects of malignancy	Moved to acute oncology 6.2	
	Practical Procedures in Oncology	deleted	module deleted – no procedures now in the curriculum as other specialists perform them
	Indwelling venous catheters and Hickman lines	deleted	module deleted – no longer relevant to the specialty

3. Medical Leadership and Management	Personal qualities	2.1	The separation of knowledge, skills and behaviours is sometimes rather artificial. For this version, the skills and behaviours have been combined and therefore individual competencies have been re-written with an active verb and are now measurable. This improves the quality, objectivity, measurability and therefore delivery of the curriculum as high quality training.
	Working with others	2.2	
	Managing Services	2.3	
	Improving Services	2.4	
	Setting Direction	2.5	
	Utility and Application	2.6	
	Confidentiality	2.7	
		Audit of practice and quality improvement	Addition as not in the previous version as specific learning outcomes and yet a requirement in the ARCP grid
		Teaching and training	Addition as not in the previous version as specific learning outcomes and yet a requirement in the ARCP grid
4. Clinical Research, Ethics and Economics	Clinical trials	new design in 3.1	Clinical research is a core component of the specialty of Medical Oncology. There was duplication in the 2010 sections and this has been rationalised. Furthermore, some of the competencies are no longer delivered by trainees as research is now team based and research associates deliver some of the previous tasks in practice. The revision reflects modern practice and updates these sections accordingly. The individual learning outcomes have been re-worded to ensure they align with assessment and can be measured.
	Statistical methods	incorporated into 3.1	
	Role and function of Research Ethics Committees	new design in 3.2	
	Ethical issues	incorporated into 3.2	
	Provision of Cancer Services and Resource Management	3.3	
	Legal framework	3.4	
5. Scientific basis of malignancy		new design in 4.1	The syllabus in the 2010 version lacked sufficient detail to allow trainees to adequately prepare for the specialty examination in Medical Oncology. More detail has been provided to align with the examination and to assist examiners constructing assessment questions.
		Principles of radiotherapy	Added following advice from colleagues at Royal College of Radiologists

6. Risk Factors, Screening and Prevention	Genetic Risk of cancer	new design of 1.4 reflecting the advances in genomic medicine and soon to implement national screening for genetic mutations	Whilst the knowledge component of risk was in the 2010 version, there are new competencies around obtaining consent for germ line testing of patients. There is a national initiative that all at risk patients will now be tested by Medical Oncologists working within a multidisciplinary team. Existing consultants will be taking on this service in the near future and therefore any new consultants will be expected to deliver this service in their new posts. As a result, trainees are motivated to acquire the relevant training (all online as outlined in section 1.4).
	Screening, Risk Factors and Risk Assessment	incorporated into 1.10	In the 2010 version this stands alone and yet it is a task that should be undertaken in every new patient consultation, it is therefore a professional skill and has been moved to a more appropriate structure within the new curriculum
	Role of Chemoprevention	incorporated into 4.2	The use of drugs to prevent cancer formation is a therapeutic intervention and made no sense as a standalone section. It has been moved to the new structure on prescribing. This should improve safety considerations too.
7. Competencies in Systemic Therapies		new design of module as 5.2	There have been a number of national guidance documents relating to the safe prescription of systemic anticancer therapies (detailed in section 5.2). This version of the curriculum includes revisions that fully comply with these recommendations. The previous version delivered good coverage, but each objective has been reviewed and edited to ensure congruence and to align with assessment and tasks undertaken in practice. The requirements for objective assessment around these competencies has been improved and included as ARCP requirements. This provides better and more detailed

			assessment of competence around this safety issue.
8. Therapeutic Modalities	Chemotherapeutic Agents	redesigned as 5.1	There have been a number of national guidance documents relating to the safe prescription of systemic anticancer therapies (detailed in section 5.2). This version of the curriculum includes revisions that fully comply with these recommendations. The previous version delivered good coverage, but each objective has been reviewed and edited to ensure congruence and to align with assessment and tasks undertaken in practice. The requirements for objective assessment around these competencies has been improved and included as ARCP requirements. This provides better and more detailed assessment of competence around this safety issue.
	Therapy and Quality of life		
	Antiemetic Agents	7.2	
	Growth Factors	7.3	
	Perception of pain	new design as 7.1	
	Bone Marrow transplant and High dose Chemotherapy	incorporated into 5.1	
	Chemotherapeutic and Biological agents	incorporated into 5.1	
9. Psychosocial Aspects of Cancer	Psychological aspects of cancer related disease	moved to 1.9	In the 2010 version these stand alone and yet they relate to tasks undertaking in practice with every new patient consultation and during the interaction with all patients on treatment and in surveillance. This made little sense and therefore was not reviewed with the required depth during assessment using workplace based assessments. The incorporation into section 1 in the new version will ensure assessment during rotation through every tumour type, and in a longitudinal manner throughout the entirety of training.
	Assessing psychological impact of diagnosis	incorporated into 1.9	
10. Modules for Clinical Training	Breast cancer	All deleted as a stand-alone modules	No longer stand-alone modules and integrated into framework of professionals skills/acute oncology/prescribing of systemic anticancer therapies. This will deliver greater congruence between the curriculum and clinical practice and align with the experience
	Colorectal cancer		
	Lung Cancer		
	patients with carcinoma of unknown origin		
	Ovarian Cancer		

	germ cell tumours		of the assessors and normal daily tasks of trainees in practice. Furthermore, the professional skills tasks from section 1 will be assessed in a longitudinal manner through the entirety of the training programme.
	Oesophagogastric cancer		
	Lymphoma		
	Uterine cancer		
	Cancer of the liver, pancreas or biliary tract		
	Skin cancer		
	Sarcoma		
	Leukaemia and plasma cell dyscrasia		
	Prostate Cancer		
	Immunosuppression associated malignancies		
	Urothelial Cancer		
	Cervical Cancer		
	Head and Neck Cancer		
	Central Nervous System Malignancy		
	Renal Cell Cancer		
	Tumours affecting the endocrine organs		
	Tumours of the Thoracic Cavity		
	Teenagers and Young Adults with Cancer	Incorporated into 1.6	incorporated longitudinally throughout the curriculum rather than a stand-alone module

Generic content updating			
3.2 Good Medical Practice (and syllabus)	3.3 Good Medical Practice	3.3 Good Medical Practice	This generic revision brings this section up to date and the content of learning/syllabus has been mapped to the 2013 version of GMP

5.3 Assessment methods		Additions: **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 **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.	Multiple Consultant Report (MCR) added to the assessment methods and blueprinted to the syllabus as agreed with GMC for all physicianly specialties Quality Improvement Project Assessment Tool (QIPAT) added to assessment methods and mapped to the syllabus as an alternative tool to the Audit Assessment (AA)
9. Equality and diversity	9. Equality and diversity	9. Equality and diversity	This section has been updated in line with policy and legislation

2017 Medical Oncology curriculum was developed with reference to the following:

- Oncogenetics competencies for Core Medical Training (genetics working group and national curricula developments for genetics)
- Specialty Training Curriculum for Clinical Genetics (August 2010)
- Specialty Training Curriculum for Clinical Oncology (August 2015)
- Specialty Training Curriculum for Palliative Medicine (2010, amended 2014)
- Training in palliative and end-of-life care: Guidance for trainees (and their trainers) in non-palliative medicine training posts (August 2014)
- Learning outcomes in genetics and genomics for specialty trainees in non-genetic specialties from the National Genetics and genomics Education Centre
- Achieving safer prescription of cytotoxic agents: Academy recommendations (April 2015)
- Concerns regarding the prescribing and administration of cytotoxic and immunosuppressant agents by foundation doctors: Academy of Medical Royal Colleges Audit Report
- For better, for worse? NCEPOD, 2008 (available via this link)
- Chemotherapy services in England: Ensuring quality and safety, National Chemotherapy Advisory Group 2009 (available via this link)
- 10 principles of good prescribing, British Pharmacological Society (available via this link)
- Radiotherapy in the 2010 Medical Oncology Curriculum: JCCO report (2012)
- Curriculum implementation feedback data from JRCPTB (2012)
- Developing a framework for generic professional capabilities: GMC 2016 (draft, final version published May 2017)
- Survey data from a pilot study of the revised guidelines for prescribing systemic anticancer therapy

Specialty groups feedback:

- Oncogenetics Working group
- SAC Medical Oncology committee members
- Training Programme Directors in Medical Oncology across the UK
- Trainees in Medical Oncology via trainee representatives at ACP, SAC

Contributors to the curriculum development included:

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