

Medical undergraduate non-surgical oncology curriculum

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Introduction

More than one in three people in the UK will develop some form of cancer during their lifetime. Cancer survival rates in the UK have doubled over the last 40 years. Half of people diagnosed with cancer now survive for at least ten years.¹ The number of people living with cancer is expected to double in the next 20 years.² This means that virtually all doctors will come into contact with patients who have cancer or have had cancer. Non-surgical oncology competences encompass the knowledge and skills that enable doctors to establish a diagnosis of cancer, care for patients undergoing radiotherapy and chemotherapy treatments, including patients being treated palliatively, and care for those who are cancer survivors.

It is intended that this curriculum will:

- Identify the minimum competences in non-surgical oncology which medical students need to acquire in order to be safe F1 doctors
- Encourage a good understanding of cancer and non-surgical oncology in undergraduates to inform their future practice in whatever specialty they enter
- Provide undergraduates with a good understanding of the role of non-surgical oncologists to help equip them to make future career choices.

The curriculum provides a guide for developing or reviewing non-surgical oncology teaching for medical undergraduates. The curriculum may be delivered as a single module or a variety of modules in the undergraduate course. Some examples of existing modules are available on The Royal College of Radiologists' (RCR) undergraduate oncology webpage (www.rcr.ac.uk/oncology/undergraduate). The learning outcomes are listed under the same headings as those found in *Tomorrow's Doctors*,³ to enable blueprinting to medical school undergraduate curricula.

References

1. Cancer Research UK. *England and Wales Survival (2010–2011) Summary*. London: Department of Health, 2014.
2. Department of Health. *Long-term Conditions Compendium of Information*, third edition. London: Department of Health, 2014.
3. General Medical Council. *Tomorrow's Doctors*. London: General Medical Council, 2009.

The doctor as scholar and scientist

The doctor as scholar and scientist:

Discusses the significance of cancer both globally and in the UK
Describes the risk factors for cancer development including genetic, lifestyle and environmental
Discusses the basic pathophysiology of the cancer process
Describes the patterns of spread of common cancers; for example, adenocarcinoma, squamous cell carcinoma, sarcoma and haematological malignancies
Describes common presentations, red-flag symptoms and the diagnostic pathway in primary care
Explains the need for a tissue diagnosis and how it is obtained
Explains the principles of staging of cancers; for example, tumour node metastasis
Explains the impact of cancer stage on treatment options and prognosis
Describes the imaging modalities appropriate for the diagnosis and staging of cancers
Explains the concept of treatment intent; for example, curative: radical, adjuvant and neoadjuvant; and palliative
Demonstrates basic knowledge of treatment options for patients with cancer
Explains how co-morbidities may impact on treatment options
Outlines the principles of: <ul style="list-style-type: none"> • Radiotherapy • Cytotoxic chemotherapy • Biologically targeted therapy • Hormone manipulation
Outlines the acute and late side-effects of cancer treatments.

The application of principles, method and knowledge of social science to medical practice:

Discusses the impact of the patient's problems in the context of their lifestyle, social factors, family and carers.
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The application of principles, method and knowledge of population health to medical practice:

Discusses the principles of cancer prevention
Discusses the principles of cancer screening.

The application of scientific method and approaches to medical research:

Explains the role of clinical trials in cancer management
Outlines the role of molecular profiling in guiding cancer management.

The doctor as a practitioner

Carrying out a consultation with a patient:

Undertakes a focused oncological history

Undertakes a focused oncological examination.

Diagnosing and managing clinical presentations:

Demonstrates holistic clinical assessment of cancer patients including local and systemic sequelae of common cancers

Assesses performance status according to a standard scale (for example, Eastern Cooperative Oncology Group [ECOG], World Health Organization [WHO])

Prioritises the patient's problems at a basic level, including the need for symptom control

Chooses appropriate investigations

Interprets investigations commonly performed in patients with cancer

Demonstrates knowledge of the importance of quality of life when discussing treatment options

Outlines sources of accurate patient information including websites

Demonstrates a willingness to involve the patient in their own management plan

Recognises indications for referral to specialist oncology services

Understands the need to assess psychological distress in patients, and possible referral pathways

Recognises indications for referral to palliative care and for supportive care

Outlines the components of an appropriate management plan for care of patients with a terminal illness.

Communicates effectively with patients and colleagues in a medical context:

Discusses the role of communication between professionals and with patients in the management of patients with cancer, including dealing with uncertainty; for example, regarding prognosis, carcinoma of unknown primary

Demonstrates appropriate communication skills with patients with cancer

Identifies the need to inform and update patients with cancer

Demonstrates ability to break bad news appropriately.

Provide immediate care in medical emergencies:

Recognises when to ask for help

Selects appropriate forms of initial management for patients with acute oncology problems including those who are on non-oncology wards including:

- Neutropenic sepsis
- Other side-effects of cancer treatment; for example, nausea, vomiting, diarrhoea, mucositis
- Hypercalcaemia
- Spinal cord compression
- Raised intracranial pressure
- Status epilepticus
- Venous thromboembolism
- Superior vena cava obstruction (SVCO)
- Malignant ascites
- Malignant pleural effusions
- Malignant pericardial effusions
- Bowel obstruction.

Carry out practical procedures safely and effectively:

Performs blood cultures satisfactorily.

Prescribe drugs safely, effectively and economically:

Recognises that specific training is required prior to prescribing or administering cytotoxic chemotherapy and/or immunosuppressant drugs

Selects appropriate medication, dose and route for patients with

- Pain
- Nausea and vomiting
- Anorexia
- Dysphagia
- Constipation
- Stridor
- Breathlessness
- Cough
- Excess respiratory secretions
- Headache
- Convulsions
- Restlessness and confusion
- Fungating or bleeding cancers.

Discusses the effect of renal and hepatic impairment on choice and dose of analgesics.

The doctor as a professional

The doctor as a professional:

Demonstrates appropriate attitudes to cancer patients and carers

Recognises the need for multidisciplinary care

Recognises the role/importance of the MDT in formulating management plans for patients

Describes the role of primary care and the palliative care team

Applies an ethical framework to solve ethical dilemmas commonly encountered in cancer patient management including end of life care

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