Chemotherapy: Principles and Practice - 6KNIS616

Level: 6
Credits: 15

Module leader: Mary Tanay
Tel: 020 7848 3229
Email: mary.tanay@kcl.ac.uk

Academic support:

Audrey Yandle
Tel: 020 7848 3678   Email: audrey.yandle@kcl.ac.uk

Jo De Souza
Tel: 020 7848 3622   Email: joanna.de_souza@kcl.ac.uk

Dr. Rebecca Verity
Tel: 020 7848 3671   Email: rebecca.verity@kcl.ac.uk

This handbook must be read in conjunction with module information provided on KEATS, the King's E-Learning And Teaching Service. You will be given access to KEATS on enrolment. Important information relating to assessment and related regulations can be found in the Undergraduate Programme Handbook, available on KEATS and via the Student Services Centre.

This handbook can also be provided in alternative formats (such as large print) upon request to asc@kcl.ac.uk.
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Module overview
This module forms part of the MSc Advanced Practice. The module contributes to your programme of study by providing specialist chemotherapy knowledge and skills specific to the role of the practitioner. The module can also be taken as a freestanding module.

Module aim
Chemotherapy Nursing is a level 6 module that aims to develop the student’s knowledge of chemotherapy (mainly systemic anti-cancer therapy or SACT), promote competent and safe practice and develop an understanding of the physical, psychosocial and spiritual side-effects that are associated with this treatment.

The module aims to develop the student’s ability to assess, plan and implement individualised care for people receiving chemotherapy and to identify and manage common side effects using current evidence practice strategies. Knowledge will also be developed in relation to important legal, ethical and safety issues associated with the storage, handling and administration of chemotherapy. It is expected that students undertake approximately 75 hours of private study.

In addition, the module aims to facilitate the acquisition of key clinical skills, essential for safe chemotherapy administration. Students are therefore required to undertake a minimum of 35 hours of practice in a designated chemotherapy clinical setting under the supervision of an identified practice facilitator or mentor.

Learning outcomes
On successful completion of the module, students will be able to:

- Demonstrate a critical understanding of the goals and actions of chemotherapy commonly used for the treatment of malignant and non-malignant disease.
- Recognise and identify side effects of commonly used chemotherapy and implement and evaluate interventions that can be used to manage these.
- Critically discuss the psychosocial, biological and spiritual effects of chemotherapy on the patient and their family and discuss the role of the nurse in relation to meeting patient needs.
- Identify and critically discuss the different routes in which chemotherapy may be administered and discuss nursing implications of each.
- Demonstrate a critical knowledge and understanding of the principles of safe handling, administration, storage and disposal of cytotoxic waste.
- Critically discuss the legal, ethical and professional issues involved in the nursing responsibilities related to the administration of chemotherapy and the support of individuals in their care.
- Critically discuss the informational and educational needs of people receiving chemotherapy.
- Demonstrate a critical knowledge of recent developments in anti-cancer treatments and identify the implications of these to patient care and their practice.
Teaching arrangements

- Lectures and seminars
- Small group work
- Class Discussions
- Work place learning
- E-learning
- Personal and group tutorials
- Personal study and reflection
- Guided personal study e.g. worksheets
- Review of relevant literature and research
- Assessments will be marked according to the Undergraduate Marking Criteria which may be found on your Post-qualification Undergraduate Handbook.

Formative assessment

There will be a number of scheduled formative assessments during the module – please see timetable for details of dates and times.

Summative assessment

You will be required to complete a Practice Assessment Document (PAD). You are expected to demonstrate safe, proficient practice in relation to a number of key clinical skills associated with chemotherapy administration. The PAD will be awarded a Pass/Fail. In order to successfully complete the module, this document must achieve a Pass mark. The PAD will be marked by the module lecturing team.

This module is assessed by a 2 hour unseen written examination. The pass mark is 40%. The numerical grade received for the examination will contribute 100% to the overall mark for this module and will be graded in accordance to the Level 6 Grading Criteria set by the Florence Nightingale School of Nursing and Midwifery. A copy of this can be found in the Post-qualification Undergraduate Handbook.
Coursework submission are provided on the modules KEATS site. It is essential that you use your candidate number on all assignments/examinations. Your candidate number, which will begin with X for the academic year 2016/17, will be available via Student Records on the King’s Intranet approximately one month after you enrol.

If you are unable to submit your work by the deadline please refer to the information in your programme handbook on “mitigating circumstances”. If you require further support in these circumstances you are advised to contact KCLSU.

Submission date for:

Term 1: 17 January 2017
Term 3: 1 August 2017

Late submissions will be accepted for 24 hours following the submission date. All work submitted late will be marked as normal but will be capped at the pass mark for the module. If your assignment is a hard copy please ensure you date stamp it and submit it to the submission room G15 James Clerk Maxwell Building. If your assignment is submitted electronically through TurnItIn, information about how to submit late will be provided on KEATS module sites under assessment information. Please label the file with your candidate number and double-check you have submitted the correct file.

The external examiner for this module is Dr Brian Nyatanga. Students are not to make direct contact with external examiners, in particular regarding their individual performance in assessments.

The College and its Examination Boards in the ten Faculties (Institutes/Schools, King’s Learning Institute and the Association of King’s College (AKC), work with over 500 external examiners to ensure the quality and standard of our taught awards. Find the latest report on the External Examiners Report page, navigate to the Faculty of Nursing and Midwifery section.

Results and resubmissions for clinical assessment document

Students will receive a provisional (unratified) mark for their coursework 4 weeks following submission. According to the method of submission as detailed on your KEATS site, if your work was submitted online you will be able to download marked coursework from KEATS; alternatively, if you completed a hard copy submission you can collect your coursework and feedback from the Student Services Centre.

To collect a hard copy assignment, you must provide your candidate number. Alternatively, you may send a stamped addressed envelope to the Student Services Centre ensuring that this is large enough to accommodate your assignments and that you have applied sufficient postage. Hard copy assignments will be retained for four weeks; if you have not collected your assignment by then, it will be destroyed.

Feedback will include the award of a numerical grade which remains provisional until ratified by the examination boards. The dates for the examination boards are available on KEATS. Ratified marks can be viewed via Student Records on the King’s Intranet, the Monday following the relevant examination board.
The marking criteria by which your work is judged are provided in full in your programme handbook. Please also refer to the section in your programme handbook on plagiarism and how to avoid it. If you have a query about how to refer to a specific piece of work please ask your module leader, your group leader or a member of library staff for guidance or please use King’s Libguides site.

The feedback you receive on your assignment will guide you towards how to do better next time or how to maintain your existing high standard!

If you do not understand your mark or the feedback you receive please contact the module leader, Mary Tanay.

If you are unsuccessful, it is recommended that you contact the module leader before submitting your second attempt. This will enable the module leader to provide you with an appropriate level of support as you prepare to resubmit your work.

**Dates for examinations**
You will be notified of dates for examinations on the Student Records section of the King’s Intranet.

**Results and resits for examinations**
Unratified results from exams will be available on your KEATS module site 4 weeks from the date of the examination.

Faculties are required from this academic year 2016/17 to make examination scrips available to any student who makes a request, free of charge. Any requests for examination scripts should still be managed in accordance with the Data Protection Act 1998. Students may request access to their exam paper at any time (after the Assessment Sub Board meeting) during their programme of study. This policy applies to all summative, unseen, written examinations, MCQs and OSCEs are exempt from this process.

Resit dates will be available on your KEATS module site. If you are unsuccessful, it is recommended that you contact the module leader before submitting your second attempt or resitting your examination.

**Resubmission date for clinical assessment document:**

**Term 1: 11 April 2017**
**Term 3: 17 October 2017**
Learning outcomes & indicative reading

Session 1 – Module Introduction and Assessments
By the end of the session students will be able to:

- Identify aims and objectives of the module
- Discuss assessment and clinical practice requirements

Indicative reading
Module Handbook
Post-qualification Undergraduate Handbook

Session 2 – Biological Principles of Systemic Anti-cancer Therapies
By the end of these sessions students will be able to:

- Describe and critically discuss the biological basis for the use of chemotherapy in relation to cancer cells and the cell cycle
- Identify and critically discuss a range of factors that can affect the efficacy of chemotherapy
- Distinguish between the different groups of chemotherapy
- Demonstrate a critical understanding of the rationale for the use of combination protocols employed in chemotherapy
- Critically discuss what is meant by the concept of drug resistance and identify factors influencing this in relation to chemotherapy

E-learning 1 – Routes of Chemotherapy Administration (self-directed and on-line learning)
By the end of this session students will be able to:

- Identify and critically discuss the different routes that can be used for the administration of chemotherapy
- Demonstrate a critical understanding of the potential advantages and disadvantages of each route and disease conditions in which they are used
- Demonstrate an in-depth understanding of the National Guidelines on the Safe Administration of Intrathecal Chemotherapy
Session 3 – Acute and Long-term Toxicities of Cytotoxic Chemotherapy and Targeted Therapies

By the end of this session students will be able to:

- Identify and critically discuss some of the most commonly experienced toxicities of chemotherapy, including targeted agents, their causes and implications for patients
- Distinguish between acute, chronic and late onset toxicities
- Critically discuss factors which may exacerbate or prolong toxicities
- Identify and critically discuss evidence-based interventions that can be used to assess, alleviate and prevent commonly experienced toxicities of chemotherapeutic drugs and targeted cancer therapies.

Session 4 – Neutropenic Sepsis, Anaphylaxis, Tumour Lysis Syndrome and Haemorrhagic Cystitis

By the end of this session students will be able to:

- Describe and critically discuss the pathophysiology, associated clinical manifestations and potential implications of chemotherapy induced toxicities including:
  - Neutropenic sepsis and septic shock
  - Hypersensitivity and anaphylaxis
  - Tumour lysis syndrome
  - Haemorrhagic Cystitis
- Critically discuss preventative and management strategies that can be implemented to deal with these emergencies with reference to the role of the nurse.

Sessions 5 & 6 – The Impact of Chemotherapy on the Patient’s Quality of Life: Exploring Family Needs & Supporting Patients and Carers

By the end of this session students will be able to:

- Gain a thorough and a critical understanding of the significant impact chemotherapy has on patients and their families
- Identify and critically discuss social support systems and interventions that will assist the patient and their families to adapt to the impact of chemotherapy
- Identify potential sources of information for people undergoing chemotherapy treatments and discuss how these may be used to support patients
- Critically discuss the role and responsibility of chemotherapy nurses in supporting patients and their families while undergoing chemotherapy
E-learning 2 – Principles of Safety in Chemotherapy Administration

By the end of this session students will be able to:

- Demonstrate a thorough and a critical understanding of the principles underlying the safe handling, storage, administration and disposal of chemotherapy
- Demonstrate a thorough and a critical understanding of the procedures that should be taken in the event of accidental spillage of cytotoxic substances on inanimate objects and living tissue
- Critically discuss the potential hazards associated with exposure to cytotoxic substances and interventions that can be employed to minimise these risks including the use of personal protective equipment.

Session 7 – Nutrition

By the end of this session students will be able to:

- Critically discuss factors that may impact on the nutritional status of people receiving chemotherapy
- Identify the importance of nutritional assessment
- Identify and critically discuss nutritional interventions that can be used to provide support to people receiving chemotherapy
- Critically discuss the nurse’s role and professional responsibilities in relation to nutritional assessment and support
- Critically discuss nutritional issues relevant to chemotherapeutic practice.

Session 8 – Chemotherapy Safety and Extravasation (links with e-learning 2)

- Define what is meant by “extravasation”.
- Identify signs and symptoms of extravasation and critically discuss potential implications of this adverse event
- Critically discuss the rationale for the strategies used in the prevention and management of extravasation

E-learning 3 – Work the Protocol Exercise: Chemotherapy Specific Nursing Considerations

By the end of this session students will be able to:

- Identify the most commonly used drugs in their workplace.
- Critically discuss specific nursing assessments which are carried out for specific chemotherapeutic drugs.
- Demonstrate a critical understanding of the nurse’s role and professional responsibilities in relation to ensuring safety when administering drugs with specific guidelines.
E-learning 4 – Supporting the Needs of Teenage and Young Adult Patients

By the end of this session students will be able to:

- Gain a thorough understanding of the significant impact chemotherapy has on teenage and young adult patients and their families
- Identify and discuss support systems and interventions that will assist teenage and young adult patients and their families to adapt to the impact of chemotherapy.
- Discuss the role and responsibility of chemotherapy nurses in supporting teenage and young adult patients and their families while undergoing chemotherapy.

Session 9 – Patient Assessment

By the end of this session students will be able to:

- Critically discuss the importance of holistic assessment for patients receiving chemotherapy and their carers
- Demonstrate a thorough and a critical understanding of the implications of assessment findings
- Identify factors that may negatively impact on the assessment process and critically discuss ways in which these may be overcome
- Demonstrate a critical understanding of the importance of effective communication when providing chemotherapy-related information to patients
- Critically discuss essential communication skills and strategies that can help patients to understand their treatment plans
- Demonstrate an awareness of barriers to and facilitators of effective communication and identify ways to ensure good communication

Session 10 – Professional Issues

By the end of this session students will be able to:

- Demonstrate a thorough and a critical understanding of the professional, legal and ethical challenges related to the role of the health-care professional involved in chemotherapy administration
- Critically discuss strategies that can be employed by the health-care professional to manage these challenges
- Critically discuss the importance of informed consent
- Describe and critically discuss strategies that support health-care professionals in their chemotherapy role
General Recommended Reading
See online reading list for more specific references


Module evaluation
At the end of the module you are requested to complete the short online evaluation which will be available on your module KEATS site. Student evaluations are very important to us and are required by Health Education England and the regional London Local Education and Training Boards.

Action from previous evaluations
1. “The biology part on days one and two was very intensive”

   **ACTION:** Days 1 and 2 are now 2 weeks apart to allow time for consolidation and reading. Module participants are also encouraged to read pre-session materials that are available on KEATS prior to module start date. Pre-session reading are not compulsory but are regarded useful by previous students.

2. “More consideration should be given in regards to the fact that not everyone doing the course has previous chemotherapy experience.”

   vs

   “I was expecting a bit more about biochemistry to help me understand the protocols used for the different groups of patients, why they are used as 1st or further line of treatment. I was also expecting to learn a little bit more about most important research results that influenced some of most important advances in chemotherapy.”

   **ACTION:** Module participants are from various levels of chemotherapy experience. Additional support is available for complete beginners in the form of tutorials. Student’s mentors in practice should also be able to help students in applying theory to practice, guided by the module practice assessment document. Additional reading are provided to those with more experience and are interested with more advanced reading. It will be ensured, however, that learning resources and delivery are able to meet the module outcomes.
**Timetable**

NB. Some suggested cancer biology literature that students should read prior to start of the module is available on the KEATS (e-learning) site. KEATS will be available 2 weeks before day 1.

Pre-reading materials on Biological Principles of Chemotherapy will be available on KEATS two weeks before day 1. Please make sure that you access and read these.

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<thead>
<tr>
<th>Teaching mode</th>
<th>Date</th>
<th>Type of session</th>
<th>Title</th>
<th>Time</th>
<th>Room</th>
<th>Lecturer</th>
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<tbody>
<tr>
<td>University based</td>
<td>22 May 2017</td>
<td>Session 1</td>
<td>Module introduction and assessments</td>
<td>09.30-10.45</td>
<td>FWB 2.42</td>
<td>Mary Tanay</td>
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<td></td>
<td>Monday</td>
<td>Session 2a</td>
<td>Biological principles 1</td>
<td>11.00-13.00</td>
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<td>Audrey Yandle</td>
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<td>Session 2b</td>
<td>Biological principles 2</td>
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<td>Routes of chemotherapy administration (SDL-OL1)</td>
<td>Self-directed</td>
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<td>Seminar 2</td>
<td>Discussion (e-learning 1)</td>
<td>09.30-10.00</td>
<td>FWB 2.42</td>
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<td>University based</td>
<td>5 June 2017</td>
<td>Session 3</td>
<td>Acute and long-term toxicities of cytotoxic chemotherapy and targeted agents (includes a 20 minutes break)</td>
<td>10.00-13.00</td>
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<td></td>
<td>Monday</td>
<td>Session 4</td>
<td>Neutropenic sepsis, anaphylaxis, tumour lysis syndrome and haemorrhagic cystitis</td>
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<td>6 June 2017</td>
<td>Session 5</td>
<td>Exploring family needs</td>
<td>09.00-10.50</td>
<td>FWB 1.68</td>
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<td>Tuesday</td>
<td>Session 6</td>
<td>Supporting patients and carers</td>
<td>11.10-13.00</td>
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<td>Dr. Rebecca Verity</td>
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<td>19 June 2017 Monday</td>
<td>Session 7</td>
<td>Nutrition</td>
<td>09.00-10.15</td>
<td>FWB 1.20</td>
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<td>Session 8</td>
<td>Principles of safety (focus: Extravasation)</td>
<td>10.30-12.30</td>
<td>Mary Tanay</td>
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<td>Supporting teenage and young adult patients</td>
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<th>20 June 2017 Tuesday</th>
<th>Session 9</th>
<th>Patient assessment</th>
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<td>14.00-15.30</td>
<td>Mary Tanay</td>
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<td></td>
<td>Module Q&amp;A</td>
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<td>Module evaluation</td>
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**Key to classroom locations**

**FWB** – Franklin-Wilkins building

**JCMB** – James Clerk Maxwell building

**Student Computer Rooms** in Waterloo campus are located at the library in FWB; FWB rooms 2.49, 2.84 and 2.87; JCMB B20 and Waterloo Bridge Wing 3/6

It is possible to book library meeting rooms in advance for group study work.