THE FACULTY OF CLINICAL ONCOLOGY

TO: TRAINING PROGRAMME DIRECTORS
REGIONAL POST-GRADUATE EDUCATION ADVISERS
COLLEGE TUTORS
EXAMINATION CANDIDATES

FIRST EXAMINATION FOR THE FELLOWSHIP IN CLINICAL ONCOLOGY
AUTUMN 2016

The Examining Board has prepared the following report on the AUTUMN 2016 sitting of the First Examination for the Fellowship in Clinical Oncology. It is the intention of the Specialty Training Board that the information contained in this report should benefit candidates at future sittings of the examinations and help those who train them. This information should be made available as widely as possible.

Dr Seamus McAleer
Medical Director, Education and Training

FIRST EXAMINATION FOR THE FELLOWSHIP IN CLINICAL ONCOLOGY
EXAMINERS’ REPORT – AUTUMN 2016

The pass rates achieved at the AUTUMN 2016 sitting of the First Examination for the Fellowship in Clinical Oncology are summarised below.

<table>
<thead>
<tr>
<th>Module</th>
<th>All Candidates</th>
<th>UK-trained Candidates</th>
<th>UK First Attempt Candidates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall*</td>
<td>62/116</td>
<td>53.4%</td>
<td>20/33</td>
</tr>
<tr>
<td>Cancer Biology &amp; Radiobiology</td>
<td>71/97</td>
<td>73.2%</td>
<td>24/33</td>
</tr>
<tr>
<td>Clinical Pharmacology</td>
<td>88/115</td>
<td>76.5%</td>
<td>33/36</td>
</tr>
<tr>
<td>Medical Statistics</td>
<td>58/101</td>
<td>57.4%</td>
<td>27/33</td>
</tr>
<tr>
<td>Physics</td>
<td>63/106</td>
<td>59.4%</td>
<td>28/38</td>
</tr>
</tbody>
</table>

This examiners’ report does not provide an in depth breakdown of performance on individual questions but is intended to guide trainers and candidates by highlighting particular areas of concern. Candidates are reminded that it is recommended that all modules are attempted at the first sitting, to maximise chances of success over the total of four permitted attempts.
Cancer Biology
The candidates performed extremely well at this sitting and displayed good discrimination, indicating success for those who had a good knowledge of the whole syllabus. However, failings were noted in certain areas. Candidates are advised to focus more on mechanisms of cell death, mechanisms of HER2 activation and causation of human tumours, including syndromes listed in the syllabus.

Radiobiology
Overall the candidates performed well, demonstrating a good understanding of radiobiology. Improvements are required in the following areas:
- Greater understanding of the differences between stochastic and tissue reactions (deterministic effects)
- DNA lesions and associated repair times
- The role of the clonogenic survival assay and the application of the linear-quadratic model
- Retreatment with radiation
- Understanding of cellular systems (hierarchical, flexible)
Candidates are reminded to read the question carefully and choose the ‘single best answer’

Clinical Pharmacology
The examiners noted that overall the candidates have performed well. The candidates scored highly on mechanism of action of individual drugs. However they performed less well on questions involving:
- Interpretation of clinical data
- Pharmacokinetics of common anti-neoplastic drugs
- Application of drug metabolism to clinical scenarios
- National drug and policy guidelines.

Medical Statistics
The overall pass rate was consistent with previous sittings. Questions on many topics were answered well. Candidates are encouraged to focus on the following topics:
- Survival analysis; in particular differentiating between different methods
- Study design including an understanding of the phases of clinical trials and their governance
- Interpretation of 2x2 tables for screening tests
Candidates should be able to apply their theoretical statistical knowledge to practical clinical problems.

Physics
Examiners were pleased with overall candidate performance in this module. However, basic principles of radiotherapy planning with photons are not well understood, in particular:
- The use of wedges
- Clinical use of electrons
- Simple monitor unit calculations including PDDs
Additionally, the following questions were not well answered:
- VMAT implementation
- Linac beam generation
- IRMER roles and legislation