

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 2019**

The Examining Board has prepared the following report on the AUTUMN 2019 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 Frances Yuille**  
Medical Director, Education and Training

**FIRST EXAMINATION FOR THE FELLOWSHIP IN CLINICAL ONCOLOGY  
EXAMINERS' REPORT – AUTUMN 2019**

The pass rates achieved at the AUTUMN 2019 sitting of the First Examination for the Fellowship in Clinical Oncology are summarised below.

	<b>All Candidates</b>		<b>UK-trained Candidates</b>		<b>UK First Attempt Candidates</b>	
<b>Overall*</b>	63/146	43%	33/64	52%	19/37	51%
<b>Cancer Biology &amp; Radiobiology</b>	88/142	62%	41/58	71%	33/45	73%
<b>Clinical Pharmacology</b>	71/139	51%	39/59	66%	34/47	72%
<b>Medical Statistics</b>	68/124	55%	36/51	71%	34/40	85%
<b>Physics</b>	82/143	57%	37/57	65%	29/43	67%

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**

Generally, cancer biology was answered well. Examiners recommend revision of growth factor signaling, the molecular principles of cell cycle control and of cancer immunology.

## **Radiobiology**

The performance of candidates was generally down in comparison with previous years. Improvements in knowledge and understanding are required in the following areas:

- Mechanisms and kinetics of DNA damage repair.
- Manifestations and time scales of acute radiation syndrome.
- Principles and application of the LQ model for calculating cell survival.
- Differences between chromosome and chromatid formation, and repair.

Candidates are reminded to carefully read all questions and provide the single best answer.

## **Clinical Pharmacology**

Candidates performed well in practice- based questions. Candidates did less well on questions that included mechanism of action and pharmacokinetics.

## **Medical Statistics**

Candidates generally performed very well in understanding both the theory and application of medical statistics. There were no specific areas of the curriculum that caused concern although some candidates did not fully appreciate the measures required to reduce bias, nor the differences between different techniques used in survival analysis. Examiners would recommend that candidates are able to interpret the statistical design and analysis of research publications.

## **Physics**

Examiners were pleased to see an improvement in candidates' understanding of basic physics principles, including photon interactions and radioactive decay. Questions on the theory of electron treatments were also well answered. However, there was a possible lack of understanding of depth dose calculations and the effect of filtration on the beam spectrum and its resulting penetration. Candidates should also develop a better appreciation of radiation protection and uses of wedges in clinical practice. The impact on dose distributions of different treatment planning algorithms should be an area for further study and consideration.