

# MRCPUK

MEMBERSHIP OF THE ROYAL COLLEGES  
OF PHYSICIANS OF THE UNITED KINGDOM



**ANNUAL REVIEW 2010**

# About MRCP(UK)

**The Federation of Royal Colleges of Physicians of the United Kingdom** sets internationally acknowledged standards in medicine, building on a proud tradition of professional excellence, established over centuries by British physicians.

The Federation is a partnership between:

- The Royal College of Physicians of Edinburgh
- The Royal College of Physicians and Surgeons of Glasgow
- The Royal College of Physicians of London.

Working together, the Colleges develop and deliver membership and specialty examinations that are recognised around the world as quality benchmarks.

The Federation is responsible for a portfolio of examinations.

**The Membership of the Royal College of Physicians (UK) Diploma** tests the skills, knowledge and behaviour of doctors in training. The MRCP(UK) Diploma has been approved by the General Medical Council (GMC) as the knowledge based assessment for core medical training and the successful completion of the entire three-part examination is a requirement for physicians wishing to undergo training in a medically related specialty in the UK. Internationally, the MRCP(UK) Diploma is also an integral part of medical training in Hong Kong and Singapore and a valued professional distinction in many other countries.

**The Specialty Certificate Examinations (SCEs)** are developed in close collaboration with the various specialist societies. Physicians in training must pass the appropriate SCE in order to gain admission to the GMC Specialist Register. Achievement of the SCE certifies physicians as having sufficient knowledge of their specialty to practise safely and competently as consultants. The SCEs are a relatively new requirement for specialist physicians in the UK and they are gaining recognition internationally. The examination provides an international benchmark for postgraduate medical education.

**MRCP(UK)** works closely with the exam teams in the three Colleges and is accountable to the Federation. Staff handle applications, coordinate logistics and communicate results to candidates. The team also works with the examining boards, to develop the content of the tests and set the standards required to pass the exams. MRCP(UK) monitors performance in the examinations and generates statistical analyses, which are crucial to maintaining academic quality.

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## Introduction

This year has been busy and productive so there is much to report here in our third annual review. In my first year as Medical Director at MRCP(UK) I am finding it a privilege to work with the team that produces our world-class examinations.

In 2010, these high standards were maintained while we also responded to urgent developments in UK medical training and regulation. Many of these issues will carry over into 2011 and we are well-equipped not only to react but to lead in shaping the debate.

Under the rules for the latest UK curriculum, completion of the MRCP(UK) examination is now a requirement for applicants seeking their first higher specialist training (ST3) posts. This development affects individuals who entered core medical training (CMT) in or after August 2009 and this cohort is expected to take up ST3 posts in August 2011. This is placing significant pressure on candidates, deaneries and MRCP(UK). A shortfall in recruitment could also have consequences for hospital staffing levels and patient care. Therefore, we are taking early and proactive steps. We are:

- alerting candidates and trainees, making sure the timetable is crystal clear
- exploring earlier release of results and retakes for the clinical component of the examination (PACES)
- giving UK trainees priority at UK centres
- recruiting more examiners and hospitals to host PACES.

There has also been a different source of anxiety for some UK physicians who have already completed all or part of the MRCP(UK). There is controversy about whether examinations completed outwith an approved training programme could count towards a Certificate of Completion of Training (CCT). We are actively working to resolve these uncertainties and we will continue to liaise with the GMC and others to reach a satisfactory conclusion for all UK trainees. In the midst of all this change, some principles remain constant.



A 'zero tolerance' policy on cheating in our written papers was launched, reminding candidates to act in accordance with good medical practice, which includes a strict code of ethics and honesty.

Our successful international programme remains a priority and our new International Associate Medical Director, Dr Lawrence McAlpine, leads this work. We are reviewing capacity at our international centres for the MRCP(UK) examination, especially PACES, and promoting continued uptake of the SCEs.

Three additional SCEs were launched in 2010: acute medicine, medical oncology and rheumatology. We are also broadening eligibility to allow many more experienced trainees to take the SCEs.

These achievements lead to major changes in the work of the staff at MRCP(UK). We are streamlining procedures, emphasising efficiency and investing in a new state-of-the-art question bank.

In the year ahead, we will continue to build on our position of excellence, for example by supporting new research to ensure our examinations remain evidence-based. To this end, MRCP(UK) and University College London are jointly funding a research project which will be investigating the part played by the MRCP(UK) Diploma in the development of good doctors. Our aim, as always, is to provide examinations that are up-to-date, fit for purpose and the first choice for aspiring physicians wishing to demonstrate their knowledge and clinical skills.

**Professor Jane Dacre**  
Medical Director, MRCP(UK)

# Preventing academic misconduct

## Zero tolerance policy

The MRCPUK examinations are an objective measure, proving that a physician has acquired a defined standard of knowledge. Cheating devalues that standard, compromising the integrity of the examinations and patient safety. Therefore, ensuring honest conduct in all aspects of the examinations is one of our primary responsibilities.

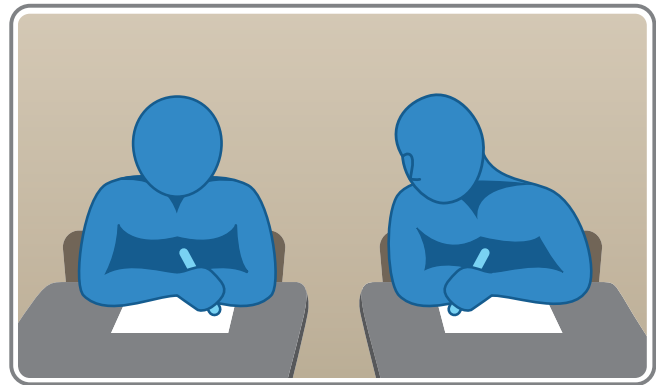
This duty must be balanced with an equal obligation to treat candidates fairly and protect their privacy. False accusations against an innocent doctor have the potential to cause great professional and personal harm.

Now that the MRCPUK examinations are mandatory for entry into UK higher specialist training, fairness and steps to eliminate cheating are even more important. Allegations of cheating are promptly and thoroughly investigated and all confirmed cases of misconduct are reported to the General Medical Council (GMC).

This year, we have adopted additional measures to remove opportunities for cheating and to further improve detection when, in rare cases, it does occur. One example is our new policy on anomalous pairs.

### Anomalous pairs

It is statistically improbable for two candidates to give identical answers on a lengthy multiple-choice examination. When this does occur, the result is referred to as an "anomalous pair." Software to detect these patterns was introduced in 2007. The Acinonyx system, developed by Professor Chris McManus, is run after every MRCPUK written examination. Our procedure for dealing with anomalous pairs has changed to become more transparent and proactive, following recommendations from the Academic, Quality Management and Research Committee (AQMRC) and consultation with trainees and lay members. In the past, when anomalous pairs were detected and there was no corroborating evidence, the candidates were not alerted but were monitored more closely at future



attempts. If they then appeared in a second incident of an anomalous pair this was seen as corroboration. From the third quarter of 2010 (diet 2010/3) this has changed: we now notify both candidates immediately by letter when they appear as part of an anomalous pair. Candidates are reassured that there is no assumption of guilt towards either individual, and to safeguard them against any possibility of being implicated in any future examination, MRCPUK will make arrangements for both candidates to sit the next written examination they may enter in isolation with only an invigilator present. The arrangements are completely confidential and are designed to protect innocent candidates, as well as to preserve the overall integrity of the examinations.

### Invigilation

There is no substitute for good supervision on the day and we have increased the number of invigilators on duty for each examination. There is now a ratio of 1 invigilator to every 25 candidates, at all times during the examination. In addition, each invigilator is now assigned specific candidates in a defined zone within the examination hall.

### Candidates' responsibilities

As part of the documentation they receive, candidates are reminded of the importance of academic integrity. It is also made clear that they are responsible for guarding their own papers from the eyes of others, to reduce any opportunity for copying answers. A candidate is responsible for reporting anything that makes them suspect cheating has occurred.

# Investing in the best technology

## Managing our question bank

The successful launch of the Specialty Certificate Examinations (SCEs) has been a notable accomplishment (see page 8). Over the space of two years, we have introduced 11 new examinations and another is on the way in 2011.

With the MRCP(UK) Part 1 and Part 2 written papers and the SCEs, we are now administering a bank of well over 20,000 questions. These questions must be kept up-to-date, mapped to the curriculum and built into examination papers through an extensive process of peer review.

Now, the challenge is to manage this rapid growth efficiently while maintaining the very highest academic standards. Over the past year, our medical and administrative staff have been reviewing, coding and updating questions to ensure they are fit for purpose and of the right standard. We have also been streamlining and standardising the question writing, editing, and paper production processes.

To support this work, we will require increasingly powerful technology. Therefore, we have been considering competitive tenders to update our existing software system, which has been in use for 10 years. This update will allow faster and more sophisticated data entry, retrieval and analysis. Investing in the latest technology to manage our question bank will have many benefits in terms of efficiency, quality and security (see illustration).

Using the best technology will help us keep standards high, thus continuing to satisfy all of our stakeholders: the General Medical Council, which regulates postgraduate medical assessment; the hundreds of physicians who contribute to our examinations; educators and NHS employers; and above all, the candidates who invest significant time and money to attain respected professional credentials.

### **An enhanced database has the potential to:**

- Store questions for all of our examinations, which include written papers and computer-based tests (CBT)
- Classify and reference images
- Manage associated information for each question, such as when it was last used and where it maps to the curriculum
- Manage the content, production and quality of our multiple-choice examination papers
- Organise information for staff as they select, edit and analyse questions in the bank.

## Efficiency

- Makes best use of question writer and reviewer time
- Speeds up administrative tasks
- Offers automated templates for editing
- Manages production of both 'pen and paper' and computer-based examinations
- Allows multiple users to access the bank simultaneously
- Facilitates faster construction of new examination papers

## Quality

- Tracks progress of each question through the review process
- Reduces administrative errors
- Aids editorial consistency
- Flags up topic gaps
- Meets regulator requirements
- Automates review deadlines for each question
- Provides full audit trail (authors, source, date)
- Preserves the high value of MRCP(UK) and SCE qualifications

## Security

- Eliminates need to email material to reviewers
- Locks completed questions to prevent further changes
- Regulates individual access rights
- Restricts display of sensitive information to authorised users

# Specialty Certificate Examinations

## Coming of age

**This year included several milestones for the Specialty Certificate Examinations (SCEs), which are maturing past the launch phase and becoming an established part of the academic calendar.**

The SCEs are demanding assessments for physicians nearing the end of specialist training, which test knowledge at an advanced level. They consist of 200 'best of five' multiple-choice questions and are administered via a computerised system at test centres around the world.

All but one of the 12 SCEs have now been rolled out. An additional examination in palliative medicine is scheduled for 2011. This is a tremendous achievement and a testament to the hard work of all the physicians and staff members who have been developing the examinations over the past few years. They have been led by Dr John Mucklow, Associate Medical Director for the Written Examinations.

Since their introduction, almost 1,500 candidates have sat the SCEs worldwide. Uptake is encouraging, in the UK and internationally. Demand for places will continue to increase as more candidates are required to pass the examination in order to gain a CCT (Certificate of Completion of Training, a prerequisite for entry to the UK Specialist Register). In 2009, very few candidates sitting the SCEs were obliged to pass in order to acquire a CCT. However, in specialties offering the SCE, the examination is now mandatory for candidates who are following curricula that started in 2007 (2009 for acute medicine) or later and are seeking a CCT.

### Setting the standard

The SCEs have been developed in collaboration with the relevant specialist medical societies. Aided by experienced question writers recruited from the MRCPUK Specialty Question Groups, Dr Mucklow recruited and trained new teams of writers from the membership of the specialist societies. Physicians

volunteer their time to write and peer review questions at the level of knowledge required of a newly appointed specialist. An examining board made up of experienced clinicians from the specialty selects questions and sets an examination that relates to the curriculum. During this process questions are reviewed to ensure they are still up-to-date.

The SCE standard setting groups are responsible for evaluating the level of difficulty of each question in an examination paper in order to set a pass mark. The composition includes recently appointed specialists to ensure that the examination content represents an appropriate level of knowledge.

### Feedback for candidates

This year, in line with the MRCPUK Part 1 and Part 2 Written Examinations, detailed candidate feedback was introduced to indicate areas of strength and weakness. Candidates sitting the SCE in dermatology in October 2010 were the first to receive performance feedback.

Under this system, every candidate will now receive a report with a breakdown of their performance for each curriculum topic tested. This will be rolled out for all SCEs in 2011.

### International reach

The International Associate Medical Director, Dr Lawrence McAlpine, has been raising the profile of the SCEs outside the UK, by highlighting the exams as a valuable next step in a physician's career.

Most recently, to encourage uptake of the SCEs around the world, the majority of the specialist societies have agreed to extend the eligibility criteria. In these specialties, candidates will not be required to hold the MRCPUK Diploma or an equivalent. This change will allow many more experienced trainees the opportunity to sit the SCEs.





**Dr Dhanya Mohan**

MD, DNB, MRCP(UK)

**Specialist Registrar, Nephrology Unit,  
Dubai Hospital, Dubai Health Authority,  
Dubai, United Arab Emirates**

**Examination passed:**

Specialty Certificate Examination  
in nephrology

**Examination centre:**

Dubai, United Arab Emirates



“I started my preparation as soon as I came to know about the SCEs from the MRCP(UK) website,” Dr Mohan says. She hit the books, reading extensively from authoritative medical texts in her field. Dr Mohan also found continuing medical education (CME) programmes useful for staying abreast with the latest developments.

“Over and above, I have noted that every patient that I have seen in my clinical practice in nephrology has enriched my learning experience,” she adds. “This helped me immensely when I finally appeared for the SCE, as many of the questions were clinical scenarios similar to those we see in regular nephrology practice.”

Although she had spent more than two years preparing, and had taken many examinations before, Dr Mohan felt nervous on the day. Her diligence paid off, though. “Passing the examination in the first attempt has boosted my confidence as a nephrologist,” she says. “I consider it to be an important achievement.”

“Learning never stops with an exam,” Dr Mohan adds, and she is determined to continually acquire new knowledge and stay updated.



**Dr William Tillett**

MBChB, BSc(hons),  
MRCP(UK)

**Research Registrar, Royal National  
Hospital for Rheumatic Diseases, Bath,  
United Kingdom**

**Examination passed:**

Specialty Certificate Examination  
in rheumatology

**Examination centre:**

Bristol, United Kingdom



Dr Tillett was one of the first candidates to sit the SCE in his specialty and he was not sure exactly what to expect. “As this was the first outing for the rheumatology SCE the exam was a bit of an unknown quantity for us,” Dr Tillett says.

Ahead of time, information filtered down through his Registrars at Training (RATS) representative, and Dr Tillett was reassured this would be a test of useful clinical knowledge and not esoterica. He decided to focus his study time on key clinical guidelines and this contributed to his successful pass.

“Because this was the first SCE we were given the reassurance of a free retake if we failed, which took the pressure off the exam day itself,” he says. “It was a real relief to find clinically relevant, well structured questions.”

Dr Tillett advises other potential candidates: “If future exams are structured in the same way you should be reassured the rheumatology SCE is a very sensible, eminently passable clinical exam for a trainee in the latter stages of their training.”

# Meeting the rising demand for PACES

## Recruiting clinical examiners

**If medicine is indeed an art as well as a science, there will never be a substitute for assessing a physician's skill in caring for real human beings, with all their unpredictability and emotional as well as physical needs.**

The practical element of examinations has a history that stretches back hundreds of years and it continues today, underpinned by a modern approach based on evidence and fairness. The MRCP(UK) Part 2 Clinical Examination (PACES) also preserves that essential contact between student and mentor, thanks to the involvement of examiners. Working in teams of two, PACES examiners assess each candidate's clinical skills, as demonstrated during set scenarios with patients or surrogates, according to a standardised marking scheme.

We need to recruit more examiners to meet rising demand for PACES. Between 2008 and 2010, the number of candidates for PACES in UK centres rose from 2,950 to 4,254, an increase of 44%.

### Becoming an examiner

Many physicians who are qualified to act as examiners might hesitate to come forward, either because they do not believe they have the necessary credentials, or the time. These assumptions are often mistaken, and as a result, patients and the profession do not benefit as fully as they might from the talents of potential examiners. Communicating this message is a priority for the year ahead. We are also actively seeking ways to remove barriers – real or perceived – so that more physicians feel able to come forward to fill this important role.

Of course, examiners must possess a high level of clinical skill. Knowledge of current best medical practice and guidelines is essential.

Leadership qualities and enthusiasm matter as much as clinical qualifications. Examiners must enjoy helping to train younger doctors, and working with colleagues to further the profession and patient care. A fair and consistent approach to making judgments about the

performance of junior doctors is also necessary. Finally, an examiner should be able to articulate the service development value of this work, to win the support of his or her NHS Trust, both to obtain leave to examine and to use hospital premises to host PACES.

We are committed to fairness and respect in all aspects of our work so examiners must show they are up-to-date with equality and diversity legislation and that they understand its importance in their role as assessors. We welcome applications from qualified physicians from all backgrounds.

All senior physicians feel pressure on their time and this may seem like an obstacle for some individuals who are nevertheless interested in becoming an examiner. However, the commitment is more manageable than many physicians might believe. A minimum of two days given over to examining every year is enough to keep this skill current.

### Support for examiners

We provide substantial resources and ongoing support for examiners (see panel on page 11). Staff and clinical leaders at each of the three Colleges co-ordinate examiners locally and they offer an accessible point of contact. For examiners who need to update their equality and diversity training, we have identified good online resources.

The Colleges reimburse reasonable travel and meal expenses, and accommodation. Full details are available from the three Colleges' PACES teams.

### Opportunities and benefits

Working as an examiner also contributes to a physician's continuing professional and career development. Examiners can claim up to 12 external credits a year. By visiting different centres, attending the training workshops and spending time with colleagues, examiners can build their professional networks and share best practice.

The chance to become an examiner is a privilege that comes with election as a Fellow and many physicians are proud to take advantage of this opportunity. It is one of the best ways to support the role of the Colleges in their obligation to safeguard standards of care.

Some of the resources available include:

- Regular training events for PACES examiners
- An email newsletter and updates covering 'hot topics', just before each examination cycle (diet)
- A comprehensive handbook covering regulations and procedures
- Multi-media materials on the MRCP(UK) website.

To become an examiner, a physician must:

- Be a Fellow of one of the Royal Colleges in the Federation
- Have an active role in the supervision and training of junior doctors
- Be involved in clinical medicine in an in-patient or out patient setting
- Have fulfilled CPD requirements for the last 5 year cycle
- Have undergone Equality and Diversity training in the past 3 years
- Be subject to a formal appraisal process in their current post
- Be registered with a licence to practise with the General Medical Council (UK only).



**Dr Fiona Clarke FRCP**  
Consultant Rheumatologist,  
James Cook University Hospital,  
Middlesbrough and Tutor on the  
Masters in Clinical Education  
course, Newcastle University

Like many examiners, Dr Clarke took up the role with encouragement from a colleague, who knew about her interest in education. Five years on, she still finds the work rewarding.

It's a team effort and she enjoys working with the other examiners, registrars, administrators, patients and surrogates.

"There is a feeling of fulfilment and satisfaction in helping to enable the College in its important role in maintaining standards," she says.

In addition, Dr Clarke is motivated by the knowledge that she is helping to raise the profile of women in the profession. "Despite the numbers of women in medicine – and female students are now the majority in medical schools – the majority of examiners are men. I would particularly encourage women to consider this role."

"The work is especially suited to physicians who have the ability to remain calm, good organisational skills and attention to detail," she adds. Fitting the work into a busy schedule is not always easy but every year examining takes only between two and four days of her time. Dr Clarke also dedicates about three days per year to hosting a PACES examination at her hospital.



**Dr Andrew Smith FRCP**  
Consultant in Respiratory  
Medicine, Wishaw General  
Hospital, Wishaw

Dr Smith has been a PACES examiner for one year. Work colleagues, who were established PACES examiners, encouraged him to become a Fellow of the Royal College of Physicians and Surgeons of Glasgow and to undertake PACES examiner training, which he found to be "excellent". Colleagues and the College continue to provide all the support he wants.

"It is very rewarding to be part of such a prestigious and important exam, which is an essential requirement for medical trainees," Dr Smith says. He also enjoys networking with colleagues from different specialties and parts of the country.

In addition, it is excellent continuing professional development. "The PACES examination tests a wide range of knowledge and clinical skills and being an examiner helps keep you up-to-date."

Remaining focused during the examination is essential because it is such an important moment for the candidate, Dr Smith believes. When there are failings, he provides detailed comments to help the candidate develop and improve for a future attempt.

"The time commitment to be a PACES examiner is not onerous," Dr Smith says. Examination dates are announced well in advance so planning cover for clinical duties is straightforward.

# Best measure

## Assessing the quality of examinations

Much is at stake when a physician attempts our examinations. Many years of study, experience and hard work are put to the test. The outcome determines whether the candidate may progress on a chosen career path. The examinations also protect patient safety by ensuring that physicians have the necessary knowledge and skills.

Therefore, it is essential that our examinations are robust and can be trusted to provide a consistent level of quality. Quantitative evaluations play an important role in monitoring and demonstrating the validity of high-stakes examinations. This is an evolving field, in which many of our academic partners, clinical leaders and internal research team are involved.

### Different yardsticks

This year saw the publication of an important study (1) comparing two statistical measures of quality for postgraduate medical examinations:

- **reliability**, the traditional measure required by the regulator of UK medical examinations and
- **standard error of measurement (SEM)**, which the investigators suggest could be more appropriate.

Reliability for medical postgraduate examinations is most often expressed as Cronbach's alpha coefficient (see panel). It is a measure of the internal consistency of an examination. A value of between 0.8 and 0.9 is seen as a marker of quality. (2)

When this calculation is applied, a larger number of questions increases the reliability of the examination, as does wide variation in the knowledge or ability displayed by the candidates.

This approach becomes problematic when evaluating more advanced examinations, because as a proportion of candidates progresses at each stage, those passing

on to the next level are clustered nearer to the top of the ability range. This is what happens when an ever more able pool of candidates passes each element of the MRCP(UK) Diploma and then finally the Specialty Certificate Examinations (SCEs). Reliability is also a less illuminating measure for an examination with a small number of candidates, which is the case for the SCEs, as the range of candidate abilities is more dependent on chance.

The standard error of measurement (SEM) is a less complex calculation, and it can be calculated without knowing either the standard deviation of the scores obtained in a given examination (see panel) or their reliability. In many ways the SEM is equivalent to the conventional measure of accuracy that is reported with measuring instruments such as rulers or thermometers, where results are reported as, say,  $23^{\circ}\text{C} \pm 1^{\circ}$ , or  $142.3 \text{ cm} \pm 0.2 \text{ cm}$ . The SEM is an indicator of how a single student would perform on an examination, were they to take it repeatedly.

The authors of this study tested the hypothesis that SEM is a better measure of the quality of an assessment, because it is unaffected by the ability range or number of candidates taking an examination.

### Methods and findings

The research team approached the problem with a study in three parts:

1. Using a mathematical simulation of 10,000 candidates taking a postgraduate examination to determine the interrelationships of standard deviation, SEM and reliability.
2. Studying reliability and SEM in results from the MRCP(UK) Part 1 and Part 2 Written Examinations from 2002 to 2008.
3. Studying reliability and SEM in results from eight SCEs introduced in 2008 and 2009.

As expected, in the simulation reliability decreased when the successful candidates, who had a narrower range of ability, went on to take the second test, while the SEM did not.

In the analysis of the MRCP(UK) Part 1 and Part 2 Written Examinations, Part 2 had a lower reliability than the Part 1 examination. However it also had a *smaller* SEM (indicating a more accurate assessment).

The SCEs had small numbers of candidates, and as a result, the reliability measures varied widely between different examinations. However, overall the SEMs were comparable with MRCP(UK) Part 2.

The authors conclude that SEM is a better measure of quality for postgraduate medical examinations, especially when the range of candidate abilities is narrow or the number of candidates is small, or when candidates have to pass one part of the examination in order to enter the next.

One outcome of this study is the decision to include SEM values as well as reliability coefficients when reporting SCE results. MRCP(UK) will routinely display the two figures side by side so that, over time, people will become more familiar with the SEM as a measure of accuracy and see how it compares to the reliability coefficient. To illustrate the point, the article on the next page sets out the results of all SCE diets to date.

This is just one contribution in the constant effort to produce examinations that are fair, accurate and valid. Many questions remain and it is an active area of research. MRCP(UK) is committed to supporting further work in this area and to leading the academic debate.

## Definitions

### Cronbach's alpha

Reflects the consistency of the questions within an examination paper and its ability to test the desired knowledge. The value of  $\alpha$  will vary according to the length of the examination and the ability range of the candidates.

### Standard deviation

Within a set of examination data, the spread of marks in relation to the average. An examination where the lowest and highest scores are far apart would have a large standard deviation. An examination where most of the candidates had similar scores clustered around the average would have a smaller standard deviation.

## The authors of the study

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# Reliable results

## Specialty Certificate Examinations<sup>♦</sup>

MRCPUK is committed to rigorous evaluation of the Specialty Certificate Examinations (SCEs) and transparent reporting of this analysis. Therefore, key statistics for all of the SCEs to date are set out below. Reliability ( $\alpha$ ) is the traditional measure of consistency and the figures are within the desired range of 0.8 to 0.9. The standard error of measurement (SEM) is reported as an additional measure. It is independent of the ability range of the candidates and is the preferred index of consistency for small cohorts.

Specialty (and diet number)	Date of exam	No of candidates (UK trainees)	Pass mark (%)	Overall pass rate (%)	UK trainee pass rate (%)	Reliability ( $\alpha$ )	SEM (%)
Gastroenterology 1	24.06.08	8 (6)	66.76	62.50	83.30	0.84	2.80
Geriatric medicine 1	04.03.09	15 (12)	59.41	100	100	0.48	2.52
Nephrology 1	18.03.09	33 (16)	66.88	57.60	81.30	0.86	2.99
Respiratory medicine 1	22.04.09	25 (14)	64.27	60.00	85.70	0.85	2.90
Neurology 1	20.05.09	25 (16)	56.46	80.00	87.50	0.89	2.86
Endocrinology & Diabetes 1	20.05.09	39 (14)	65.95	38.50	64.00	0.89	2.97
Dermatology 1	24.09.09	39 (30)	67.58	92.30	97.10	0.88	3.03
Infectious diseases 1	24.09.09	6 (0)	63.71	0	N/A	0.94	2.92
Gastroenterology 2	11.11.09	105 (78)	64.91	61.00	61.50	0.81	2.89
Geriatric medicine 2	24.03.10	160 (154)	58.00	83.10	83.10	0.74	2.96
Nephrology 2	24.03.10	97 (65)	63.00	60.80	80.00	0.83	2.95
Respiratory medicine 2	05.05.10	147 (125)	56.78	68.00	74.40	0.81	3.03
Neurology 2	19.05.10	75 (55)	53.03	73.30	85.50	0.91	3.07
Endocrinology & Diabetes 2	30.06.10	174 (98)	60.00	69.50	86.70	0.89	2.98
Infectious diseases 2	15.09.10	23 (17)	67.50	82.60	94.10	0.96	2.53
Rheumatology 1	15.09.10	82 (37)	70.85	87.80	91.90	0.89	2.66
Gastroenterology 3	30.09.10	156 (111)	61.62	75.00	77.00	0.82	2.93
Dermatology 2	21.10.10	72 (59)	68.50	83.30	88.10	0.89	2.63
Acute medicine 1	24.11.10	137 (112)	61.73	74.50	80.40	0.78	2.93
Medical oncology 1	24.11.10	57 (44)	58.60	57.90	63.60	0.86	3.07

<sup>♦</sup> All diets from launch to November 2010

# Acknowledgements

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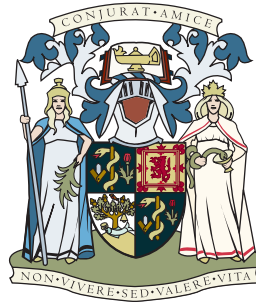
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