



How are students assessed at medical schools across the UK?

Working with doctors Working for patients

General
Medical
Council

Contents

Introduction	2
What is an assessment strategy?	4
How do schools validate the scoring of assessments and exams?	8
How do schools measure students' progression?	11
How is the professionalism of students assessed?	11
How do schools ensure the quality management of their assessment strategies?	11
How do schools ensure equal opportunities for students?	11
What happens next?	18
Glossary of terms	19

Introduction

In 2013–14, we reviewed the assessment systems used in 31 medical schools across the UK. The review has helped us understand how robust undergraduate assessment is and to compare the way that medical schools assess students. This report summarises the key themes and highlights case studies that appear to be working well locally, which medical schools may find of interest. We also identify where assessment systems are not meeting our standards as set out in *Tomorrow's Doctors* (2009) and we have taken steps to investigate these further.

What did we do?

We analysed data from the annual reports that medical schools submitted to us between 2009 and 2013. These reports tell us about substantial changes to curricula and assessment systems, highlight concerns, and update us on a school's progress if we've required or recommended changes on previous quality visits.

We asked schools for further information to give us a comprehensive overview of each school's assessment

strategy, delivery standards, quality management and governance processes, and assessment outcomes.

This was a paper-based audit and therefore has a number of limitations. Notably, the evidence obtained has not been compared against other sources as would happen with other quality assurance evidence. However, acknowledging those limitations, we were able to identify the structure of each system and areas working well to share with all schools.

What did we find?

We found many examples of areas working well that could benefit other schools. In some schools, we did not find any aspects of their assessment systems that appeared to need further review or improvement. But, while some schools manage aspects of assessment very well, they perform less well in others or fail to use modern assessment practices.

In the following sections, we look at:

- the assessment strategies schools have
- how schools validate the scoring of assessments and exams
- how schools measure students' progression
- how the professionalism of students is assessed
- how schools ensure the quality management of their assessment strategies
- how schools ensure equal opportunities for students.

We found variation across assessment systems, from when assessments happen, to the guidance students are given, and the number and nature of hurdle assessments, final exams and workplace assessments. The level of variation was expected, particularly because the structure of curricula across schools varies widely. The variation of assessment systems can be considered valuable

as it should encourage the sharing of ideas and innovation between schools. However, all systems should continue to meet our standards as set out in *Tomorrow's Doctors* (2009).

As each school has developed over time, so have their assessment programmes and practices. Whether a school is part of a university that uses a tutorial-based system also affects how its assessment system evolves.

Not all components of an assessment system are of equal importance, but together they reflect how a school considers its assessment strategy and the impact on students.

Aspects of assessment that are central to meeting our standards – such as how schools map their curricula to make sure students meet required competences across the programme, and how schools teach professionalism – vary widely across schools. There are also significant differences in how individual schools work with students who have behaved poorly or are failing to progress. This includes arrangements for students to resit exams, repeat study years and exit with grace arrangements (where students leave on good terms, but without completing the programme).

What is an assessment strategy?

An assessment strategy is a school's overarching approach to assessment and how assessment fits within the wider curriculum.

We looked at choices of assessment tools, the timing and distribution of assessments, and the range of approaches to hurdle exams and high stakes assessments.

Hurdle exams are those that need to be passed in order for students to progress to the next stage of a course of study.

High stakes assessments are exams that carry a large number of marks, usually held at the end of a period of study.

We also looked at the formats for final exams used by each school. Some schools failed to give enough evidence for us to properly audit their strategies.

We expect an assessment strategy to be clear and comprehensive, setting out a school's philosophy about the value of assessment and how it selects assessment tools.

A school's assessment strategy can be influenced by that of its parent university. Case studies have shown us that the assessment strategy is often adapted to suit the medical school. At University College London Medical School, for example, the parent university's approaches to assessment are reflected in the school's assessment strategy. But the school's assessment strategy has been adapted to also include expected outcomes by level and year of study, and to demonstrate how its methods of assessment are linked to this.

“ The new strategy includes a sound philosophy and clear selection and use of assessment tools, improved quality management and better feedback to students.”

From our review of Cardiff University School of Medicine

What makes a successful assessment strategy?

Overall, many schools demonstrate commendable practice in this area, with assessment strategies that are linked to the domains in *Tomorrow's Doctors* (2009) and achieve a sensible balance between assessment for learning and for professionalism.

In particular, Keele University School of Medicine and Cardiff University School of Medicine have clear and comprehensive assessment blueprints and a good approach to final-year assessment that provides a good balance between what is required from a student's skills logbook, their marks from high stakes exams and their overall performance.

Most schools have an effective assessment strategy, and continually review how well the strategy is working and show how it meets the standards in *Tomorrow's Doctors* (2009).

Most schools extensively help students prepare for exams

We found good examples of schools using year-by-year guides to outline the key information that students need to know, alongside a clear timetable for high stakes exams.

Several schools give students a clear timetable of all assessments they'll complete throughout their programme, including a countdown mechanism to plan for exam preparation. The University of Birmingham Medical School also uses tools, such as an in-course skills passport, to help record which skills students are acquiring.

“In-course assessment is comprehensive. The final year is comprehensively assessed, across knowledge, professionalism, prescribing and clinical domains.”

From our review of St George's, University of London

Timing of assessment is crucial

We found extensive variety in the timing of final year assessments. Schools should time knowledge and performance tests sensibly. It is important to avoid overburdening students and for students to know what needs to be prepared for and when.

At St George's, University of London, for example, some assessments have been moved to better balance student workload, with the final year balanced to provide comprehensive assessment of knowledge, professionalism, prescribing and clinical skills.

Format of exams is sometimes poorly planned

Hurdle exams should be mapped across knowledge, skills and ability domains as outlined in *Tomorrow's Doctors* (2009). Not all assessments can be high stakes. But, in some schools, a greater proportion of exams are high stakes or hurdle exams, or both, without a clear reason why.

Some schools seem especially reliant on very long exams, or on essay questions.

We believe that greater use of statistics at individual question level (known as item level) and a more planned approach should help schools achieve acceptable reliability and content validity in shorter assessments rather than longer exams. Most UK schools achieve this.

“ Key information about assessment tools, standards, decision making and progression to final award has been communicated well to students.”

From our review of Newcastle University Medical School

Approaches to assessment blueprinting vary

How schools map the components of curriculum and assessment across programme modules and programme years to meet the competence domains in *Tomorrow's Doctors* (2009) is known as blueprinting. Blueprinting should also be used to show how the intended learning outcomes of individual exams meet competence domains. We were impressed, for example, by how University College London Medical School builds performance expectations, domain by domain, in its blueprint.

Blueprints should be electronically available and give students a comprehensive domain-based catalogue of programme content, so they can personalise the blueprints for their own use. Many schools do this – St George's, University of London shows particularly good practice in this area. Its blueprint, for example, shows assessment outcomes which are clear and well mapped to *Tomorrow's Doctors* (2009).

We found significant variation in how schools approach this area. Some schools appear to have no specific blueprint at all. Other schools' blueprints were basic and lacking in detail, too list based, and not effectively mapped to *Tomorrow's Doctors* (2009) or conversely, tried to include too much detail. A blueprint should be a comprehensive guide, but not seek to replicate every aspect of an assessment strategy.

How do schools validate the scoring of assessments and exams?

Overall, we found there is less variety amongst schools in assessment and exam scoring validity, perhaps because the parameters in this area are narrower.

The validation of scoring of assessments is the process by which schools are required to constantly evaluate if the assessment methods they are using, including exams, are fair and accurate. To judge the overall accuracy and replication of exam scoring, we examined the extent to which schools consider the precision of how students score in high stakes exams. Schools with a comprehensive approach to this issue routinely carry out statistical analysis of assessments as part of their quality assurance processes. Such schools ensure that validity of scoring is construed through methods such as blueprinting of assessments, standard setting and how the statistics of student performance correlate with other assessments.

Having both a psychometrician and data analysts as part of the school staff is ideal. We encourage schools to make these appointments where they are lacking.

A number of schools demonstrate considerable evidence of their approaches to quality assurance. We noted Barts and The London School of Medicine and Dentistry's continuing commitment to good practice in deciding how a student has performed in exams (known as standard setting). The University of Bristol Medical School has made significant changes to improve the reliability of its assessments through measures including increased examiner training and the introduction of fake items (which are those that do not count towards a final mark but measure if a student completed an aspect of a test).

“ A thorough programme of quality assurance that includes the appointment of a psychometrician and data analysts, training of key assessment staff, development of assessment-related research and evidence-based changes.”

From our review of University of Leeds School of Medicine

Commonality of approach in standard setting methods

We don't favour one standard setting method over another as each has its own merits. However, we felt it important to identify the different methods used for the interest of schools.

We found that a number of schools with highly successful assessment regimes all use the Angoff method of standard setting for knowledge tests and a borderline regression method for objective structured clinical examinations (OSCEs). Other techniques such as Hofstee are used at other schools, some of which have reported they are also considering a move to the Angoff methods. If this happens, it would be helpful to see the rationale for any such change in further detail, as it may reflect a maturity in processes regarding setting standards.

A large number of schools also use the Cronbach's alpha approach to assess the reliability of data and use detailed item level analysis for written test formats.

While these schools all enjoy success using these methods, it is of note that, in its submissions to the audit, the University of Oxford Medical School made a well-reasoned argument as to why Cronbach's alpha may not be the best index of reliability for OSCEs for its students. The school prefers a Bayesian approach based on students' attainment in previous exams. This technique may be of interest to other schools with generally high performing students.

Assessment expertise works best when shared

When continuing the development of their assessment quality assurance, it's also important that schools do not work in isolation. We noted some schools, for example the University of Leeds School of Medicine, have demonstrated commitment to developing, sharing and applying assessment expertise, both internally and externally (with colleagues within the School of Dentistry and other medical schools).

Some schools were found to be lacking in staff with assessment expertise. There is also considerable variety around the amount of ongoing training in place for assessment staff, the timing of training, and overall professional development given to both staff and examiners – an area that will also be looked at in the quality management section of this report (pages 14–15).

How do schools measure students' progression?

In this area we looked at policies on student progression through a programme. This included reviewing each school's rules relating to issues such as:

- the maximum time allowed for a student to be on a programme before they complete it
- the number of resits a student is allowed to take
- how progression throughout a programme is monitored
- how a school manages and supports students who leave the programme.

What is to be admired in this area is the clear and transparent robustness of policies, as demonstrated by many schools. At Aberdeen, for example, progression arrangements are clear and straightforward. All years are treated equally, and students are permitted one resit each year, except for finals.

Robust policies give clear statements about resits

Bristol provides a good example of a good relationship between the maximum number of years allowable for study and opportunities to repeat years. We found its policy to be clear and therefore not liable to be open to misinterpretation.

However, there is considerable variety across all schools as to how student progression is approached. As a result this is an area where the amount of variety in school approaches means there is a rather confusing picture about what is and isn't school policy. A clear relationship is needed, for example, between the maximum number of years for allowable study and the opportunities to repeat years. Yet some schools have rather complex or inflexible progression systems.

When more transparent policies are in place, resit arrangements are robust, and clear on who can resit an exam, why and when. But we found many schools have confused arrangements about resits, for example regarding when they are allowed and why, and under what circumstances a resit applies.

“ The school has good exit with grace arrangements, with a certificate, diploma and BMedSci available after successful completion of years one to three of the programme. Careers advice and transfer to other programmes are also available.”

From our review of Glasgow School of Medicine

How long should students be allowed to study for?

A robust school regulation should state rules for progression through and completion of a programme by students.

We encourage schools to develop transparent and practical policies regarding progression, which detail the number of resits allowed and the time a student can take to complete their programme. We know that some schools feel restricted by their parent university's policies in this area, but we believe progression decisions are best made at university level. We suggest that schools work with their parent university to develop policies that work for medicine.

How are students who don't progress treated by schools?

Schools that reflect the guidance of their parent university, rather than specific in-house school guidance, particularly seem to apply this guidance to exit with grace arrangements (where students leave the programme without completing the programme).

Where exit with grace policies work well, students who leave after early or senior years of the programme are given additional careers guidance.

The University of Glasgow School of Medicine is a good example, with arrangements in place for students who leave in the early and latter years of study.

However, in some schools, exit with grace arrangements, including opportunities to transfer to another course of study – and at what stage this can be done at and until – are not always clearly defined. Some schools appear to not have any arrangements in place at all.

Schools also need to have clear policies for making decisions about students who are failing to progress and may need to leave a programme. This is another area in which policies can be influenced by the approach of a school's parent university. Progression decisions should also be supported by effective data.

We approve of schools taking measures such as Cardiff University School of Medicine's use of an extenuating circumstances group, which operates independently of the school's Examining Board. This group decides if a submission by a student is sufficient and/or if the effect of the circumstances at the time of the assessment was significant. The group then informs the Examining Board of its decision and if the circumstances should be taken into account of the result. The school also has a committee to oversee student conduct. This is a method that we encourage. It's vital that only those students who are fit to practise medicine, irrespective of their performance in examinations, can graduate.

How is the professionalism of students assessed?

The assessment of professionalism is both critical and challenging. In order for it to become embodied in student behaviour, it should be implicitly introduced and reinforced throughout the programme. Ideally, it should be embedded in the values of the school from the beginning, and then continue to be assessed and monitored while being taught throughout the programme.

A number of schools have an innovative approach to teaching professionalism. At schools including Cardiff University School of Medicine, students are given an explicit message that professionalism has a considerable place in their training. From years one to five, equal weighting is given to the identification and assessment of professional behaviours. Attitude and conduct make up one of three equally-weighted domains that students must pass in order to progress, with no compensatory passing allowed.

At the University of Edinburgh Medical School there is a thorough description of how professionalism is assessed in the curriculum and assessment documentation. Various teaching methods are used and professional behaviours are tracked during clinical attachments.

Students should be prepared to take responsibility

Newcastle University Medical School publishes a student guide to professional behaviour, which outlines student responsibilities and requirements, with a system weighted according to the severity of the offence. At a number of schools, student behaviour can also be tracked across the programme, through a monitoring system.

We were interested to read detailed descriptions of the teaching of professionalism at King's College London School of Medicine. This ranges from early teaching phases that introduce issues such as probity and respect, to later clinically-focused phases on issues including self-care, whistleblowing and relationships with other professions.

“ The teaching and assessment of professionalism are supported at both module and placement levels and as an overarching approach within the programme.”

From our review of University College London Medical School

How can professionalism be assessed?

Successful professionalism teaching should also include devices to track professional behaviour during students' clinical placements, as well as at module level, in a wide range of formats.

For example, University College London Medical School has both an end of module sign-off and a programme sign-off for professionalism demonstrated by students, as well as end of year assessments on professionalism.

Elsewhere, at the University of Birmingham Medical School, we found that students are assessed on a broad range of evidence from across the programme, with a focus on attendance, engagement and participation, in addition to more traditional formats, such as high stakes examinations.

We were particularly keen to see schools include patients in this area. At Keele University School of Medicine, communication with patients is assessed extensively, including the conduct and behaviour of students during a final year work placement as a primary care assistant. During this placement, students carry out a patient survey, the results of which are included in their portfolio and discussed within an appraisal.

Professionalism needs continual monitoring

We found that many schools aren't comprehensive or structured enough in their approach to teaching and assessing professionalism. Professionalism should be continually monitored and assessed.

At some schools, although professionalism appeared implicit throughout programme teaching, it is not assessed or monitored beyond informal arrangements, such as those where senior members of staff can be alerted to concerns about students.

Schools don't always assess professionalism in every aspect of teaching – some only assess in clinical assessments and placements.

How do schools ensure the quality management of their assessment strategies?

To assess the quality management of each school, we reviewed their process and quality management loops, and looked at how these relate to the school's development and refinement of its overall assessment strategy.

As part of this, we reviewed evidence from each assessment strategy's learning and teaching development and evidence from engagement with partners, including employers, deaneries, local education and training boards, the public and patients. We also scrutinised guidance and training available to staff.

As with other parts of this review, we found that parent university guidance can dominate that of a school in this area, particularly where there is an overlap with the validity and reliability of assessment. Variables include the training available for assessment item writers and assessors, whether training is mandatory or voluntary, how this training is timed and how much weight is given to it.

Ongoing refresher training is preferable in this area, as assessors and students need to keep up to date with changes to medical education and practice.

Many schools have mandatory training for staff

We were pleased to see schools are making sure that training for staff is mandatory and supervised by senior staff. Keele University School of Medicine is an example, with tiers of training requirements dependent on role and activity. University College London Medical School tests new examiners in year three exams, before they are permitted to assess high stakes year five clinical exams.

At Cardiff University School of Medicine, training is provided on the job, in a formal and supervised manner for item writers, standard setters and OSCE examiners. This training is led by senior and experienced members of staff.

Schools including Barts and The London School of Medicine and Dentistry and the University of

“ Clinicians and allied health professionals help write and deliver written and clinical assessments and there is usually trust representation on examination boards.”

From our review of Brighton and Sussex Medical School

Manchester School of Medicine should also be noted for the quality loops the schools use, with one-to-one mentorship given to key assessor roles.

However, some schools don't seem to give any training to assessors or item writers, or failed to provide us with evidence of the training arrangements they do have.

Collaboration works better than isolation

Where quality management is working well, schools recognise that assessment is not a static process but requires ongoing refinement and learning from experience.

It's important that, as part of this process, schools don't work in isolation but should work with local health education networks, local trusts and boards, local clinicians and associated health professionals. Many schools actively seek out collaboration with external partners, with some making sure that this level of engagement goes all the way to school exam board level.

Though it should be encouraged, approaches to the amount of public and patient involvement invited by schools in their assessment strategies also vary. Some schools, including Brighton and Sussex Medical School, use both real and simulated patients at OSCEs, in order to give feedback on student performance to examiners. We also noted the University of Leicester Medical School's ambitious and commendable bid to introduce a patient representative at assessment board level.

Schools should help students to prepare for exams

Another aspect of assessment reviewed here is the guidance given to students preparing for exams. This should include preparation countdowns with key dates, in preparation for finals, and year-by-year specific handbooks that include guidance on assessments. Schools should also adjust the timing of exams to avoid overburdening students.

We also assessed school data, marking policies and standard setting as part of the quality management of assessment strategies. We found that they are all subject to an amount of variation across schools, but need clear policies.

How do schools ensure equal opportunities for students?

We asked schools to provide evidence of their approaches to two main aspects of monitoring equality and diversity. First, the conditions under which students' assessments might need adjusting because of educational or health needs – known as reasonable adjustments. Second, the extent to which schools analyse the performance of students, according to protected characteristics such as their age, gender, race and sexual orientation.

Reasonable adjustments should be monitored, alongside the assessment outcomes of the student who makes the request, so that the school can get a sense of how one may be affecting the other. This is another area where a parent university's policies can be dominant in a school's approach.

Do schools monitor the protected characteristics of students?

Data collected in this area varies widely from school to school. What schools consider to be a reasonable adjustment, in respect of issues including student disability, long-term health conditions, or pregnancy, all vary.

We noted the University of Aberdeen Medical School's thorough approach in this area. The school has recently carried out a project to look at attainment in regards to student protected characteristics and educational background. This is something that should be carried out by all schools, as it could provide valuable data on what influences the educational attainment of their students.

While some schools have extensive protected characteristics monitoring in place, including monitoring characteristic subgroups, other schools seem to have little data in this area, beyond determining if a student is international or from the UK.

“ Students with special educational needs can benefit from extra time in written examinations, separate examination rooms, coloured overlays, enlarged papers and enhanced examiner briefing. Candidates in need of adjustments are all put on the same OSCE circuit.”

From our review of Brighton and Sussex Medical School

How are reasonable adjustments made?

Schools currently vary in their approach to making adjustments to learning tools so as to make them suitable for the learning styles of all students. For example, there are differences in the extent that schools limit the amount of reading material students have, or the length of final exams.

We found that the University of Aberdeen of Medicine and Dentistry School has a comprehensive approach to reasonable adjustments for students with educational needs or health issues. The University of Nottingham Medical School also gave us case-by-case examples of how reasonable adjustments can be made.

Written exam assessment adjustments, as described by Keele University School of Medicine, can include providing an amanuensis for students unable to write, extra time in exams, separate exam rooms, coloured overlays, enlarged papers and enhanced examiner briefing.

Clinical and non-clinical exams need adjustments

Clinical exams require a different approach to reasonable adjustments. At Swansea University College of Medicine, for example, during clinical exams, students unable to carry out some procedures due to short-term conditions (such as pregnancy or a broken limb) may be allowed to describe how they would carry out a procedure, rather than doing it.

Meanwhile, some schools told us how they take measures to make sure reasonable adjustments don't compromise clinical competence. As an example, at Brighton and Sussex Medical School, all candidates who need adjustments are put on the same OSCE circuit.

We would advise that all schools make use of our guidance *Gateways to the Professions* in order to make reasonable adjustments for both clinical and non-clinical assessments in line with our standards in *Tomorrow's Doctors* (2009).

What happens next?

We found a lot of areas working well at a large number of schools. Some show a considerably innovative approach to a number of aspects of their assessment requirements.

Following the publication of this report, we'll work closely with the Medical Schools Council to share some of the case studies and to encourage similar innovations across other medical schools – particularly where schools are struggling to meet our standards.

As has been seen here, there is considerable variation in how medical schools approach assessment. This is not necessarily a matter of concern – it depends whether there is acceptance that a degree of variation in assessment is desirable, and that an overall standard is achieved by all medical schools. The current variation in assessment strategies can be considered manageable, so long as standards are maintained and areas in which some schools fall below best standards are improved.

However, variation can lead to uncertainty as to whether all students are meeting an overall standard.

We therefore believe there is a debate to be had as to whether a national assessment, carried out across all schools and applicable to all doctors who wish to practise medicine in the UK, should be considered.

Glossary of terms

Angoff, Borderline regression, Hofstee

Standard setting methods for assessments.

Assessment strategy

A school's overarching approach to assessment and how assessment fits within the wider curriculum.

Blueprint

The process by which medical schools map the components of curriculum and assessment across programme modules and years in a matrix style template to meet the competence domains in *Tomorrow's Doctors* (2009).

Clinical placement

An opportunity offered at medical school for medical students to work in an environment that provides healthcare or related services to patients or the public.

Cronbach's Alpha

Reliability method for assessments.

Exit with grace

Where students leave on good terms, but without completing the medical programme at a school.

Extended matching question (EMQ)

A detailed form of multiple choice question that has a lead-in statement (such as a clinical vignette), followed by a list of at least five options from which the learner selects one or more, as instructed.

High stakes assessments

Exams that carry a large number of marks, usually held at the end of a period of study. They are primarily aimed at determining a level of competence to permit progression or certification of education or training and must have high reliability and predictive value.

Hurdle exams

Exams that need to be passed in order for students to progress to the next stage of a course of study.

Multiple choice questions (MCQ)

MCQs usually include a phrase or stem followed by 3–5 options. Candidates select what they believe is the most appropriate answer.

Objective Structured Clinical Examination (OSCE)

A type of exam to test clinical skill performance and competence in skills such as communication, clinical examination, and medical procedures/prescription. The format is a multi-station clinical examination, typically having 15–25 stations. Candidates spend a designated time (usually 5–10 minutes) at each station demonstrating a clinical skill or competency at each. Stations frequently feature real or (more often) simulated patients. Artefacts, such as radiographs, lab reports and photographs, are also commonly used.

Professionalism

The expected behaviour and values that medical students and doctors should exhibit at all times. See our core guidance for all doctors, Good medical practice.

Protected characteristics

The nine characteristics referred to in the *Equality Act 2010*.

Reasonable adjustment

An alteration, eg to a curriculum or assessment, that would enable a disabled student to achieve and demonstrate the required competence standards without being at a disadvantage compared to others.

Student progression

Progression of a student through the years of a medical school programme.

Tomorrow's Doctors (2009)

Our guidance that sets the knowledge, skills and behaviours that medical students should learn at UK medical schools and standards for teaching, learning and assessment.

Validation

The validation of scoring of assessments is the process by which schools are required to constantly evaluate if the assessment methods they are using, including exams, are fair and accurate.

Email: gmc@gmc-uk.org
Website: www.gmc-uk.org
Telephone: **0161 923 6602**

General Medical Council, 3 Hardman Street, Manchester M3 3AW

Textphone: **please dial the prefix 18001** then
0161 923 6602 to use the Text Relay service

Join our conversation

 [@gmcuk](https://twitter.com/gmcuk)  facebook.com/gmcuk
 linkd.in/gmcuk  youtube.com/gmcuktv

This information can be made available in alternative formats or languages. To request an alternative format, please call us on **0161 923 6602** or email us at publications@gmc-uk.org.

Published September 2014
© 2014 General Medical Council

The text of this document may be reproduced free of charge in any format or medium providing it is reproduced accurately and not in a misleading context. The material must be acknowledged as GMC copyright and the document title specified.

The GMC is a charity registered in England and Wales (1089278) and Scotland (SC037750)

Code: GMC/HSAMDUK/0914

General
Medical
Council