Intercollegiate Committee for Basic Surgical Examinations

2022/23 ANNUAL REPORT

MRCS

The Membership Examination of the Surgical Royal Colleges of Great Britain and in Ireland

MRCS (ENT)

The Membership Examination of the Surgical Royal Colleges of Great Britain and in Ireland (Ear, Nose and Throat)

August 2023

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The Intercollegiate Committee for Basic Surgical Examinations (ICBSE) would welcome comments on this Annual Report and ways in which it can be improved in future years. If you have comments on this Report, please send them to: The Chair, ICBSE, c/o pwhitelaw@icbse.org.uk

1.   Introduction

This is the **sixteenth** Annual Report of the Intercollegiate Committee for Basic Surgical Examinations (ICBSE) and covers the period **1 August 2022 to 31 July 2023**.

The purpose of this Annual Report is to provide a definitive source of information about the Membership Examination of the Surgical Royal Colleges of Great Britain (MRCS) and the Membership Examination for the Surgical Royal Colleges – Ear Nose and Throat (ENT) for all interested stakeholders including candidates, trainers, Assigned Educational Supervisors and the general public.

The structure, standard and quality assurance of the MRCS and MRCS (ENT) examinations are the responsibility of the ICBSE, which has a number of specialist subgroups each responsible for a different aspect of the examination.

The purpose of ICBSE is as follows:
- To develop and oversee Intercollegiate Membership examinations for assessing the standards of trainees during and at the end point of Core Surgical Training;
- To develop and oversee the MRCS (ENT) examination.

ICBSE's work may be classified into three activities:
- maintaining the quality and standard of the examinations within its remit;
- delivering incremental improvements in service standards;
- developing the examinations within its remit to meet internal and external requirements.

These three activities have equal priority.

More recently, ICBSE has been heavily involved in innovative research around the MRCS including the effects of human factors on examiner performance, and the predictive validity of MRCS in higher surgical training. The first Intercollegiate Research Fellow was appointed in July 2015 and commenced in November 2015 for an 18-month period. He published a number of peer-reviewed papers on behalf of ICBSE, gaining a PhD. The second Fellow took up their post during 2020. He has also had a number of peer-reviewed papers published on behalf of ICBSE and has also been granted a PhD. Their work continues as Honorary Post-doctoral Fellow.

2.   The MRCS examination: purpose and structure

The Membership Examination of the Surgical Royal Colleges of Great Britain and in Ireland (MRCS) is designed for candidates in the generality part of their specialty training. It is a crucial milestone that must be achieved if trainees are to progress to specialty surgical training as defined by the surgical Specialty Advisory Committees (SACs). The GMC has mandated that core surgical trainees cannot receive an ARCP outcome demonstrating they have completed Core Surgical Training without passing the MRCS examination. The purpose of the MRCS is to determine that trainees have acquired the knowledge, skills and attributes required for the completion of core training in surgery and, for trainees following the Intercollegiate Surgical Curriculum Programme, to determine their ability to progress to higher specialist training in surgery.

It is anticipated that on achievement of the intended outcomes of the curriculum the surgical trainee will be able to perform as a member of the team caring for surgical patients. They will be able to receive patients as emergencies, review patients in clinics and initiate

management and diagnostic processes based on a reasonable differential diagnosis. They will be able to manage the perioperative care of patients, recognise common complications and be able to deal with them or know to whom to refer them. The trainee will be a safe and useful assistant in the operating theatre and be able to perform some simple procedures under minimal supervision and perform more complex procedures under direct supervision.

The MRCS examination has two parts: Part A (MCQ) and Part B Objective Structured Clinical Examination (OSCE).

2.1   Part A (written paper)

Part A of the MRCS is an examination using multiple-choice Single Best Answer items. It is a five-hour examination consisting of two parts, taken on the same day. The parts cover generic surgical sciences and applied knowledge, including the core knowledge required in all surgical specialties as follows:

> Part 1 - Applied Basic Science (three-hour exam)
> Part 2 - Principles of Surgery-in-General (two-hour exam)

The marks for both parts are combined to give a total mark for Part A. To achieve a pass the candidate is required to demonstrate a minimum level of knowledge in each of the two parts in addition to achieving or exceeding the pass mark set for the combined total mark for Part A.

2.2   Part B Objective Structured Clinical Examination (OSCE)

The Part B (OSCE) integrates basic surgical scientific knowledge and its application to clinical surgery. The purpose of the OSCE is to build on the test of knowledge encompassed in the Part A examination and test how candidates integrate their knowledge and apply it in clinically appropriate contexts using a series of stations reflecting elements of day-to-day clinical practice.

3.   The MRCS and the Intercollegiate Surgical Curriculum Programme (ISCP)

The MRCS examination is an integral part of the assessment system of the Intercollegiate Surgical Curriculum Programme (ISCP) http://www.iscp.ac.uk. Ten surgical specialties: cardiothoracic surgery; general surgery; neurosurgery; oral & maxillofacial surgery; otorhinolaryngology; paediatric surgery; plastic surgery; urology; vascular; and trauma & orthopaedic surgery collaborate through the ISCP in developing a competence-based curriculum which defines the attributes required of a successful surgeon. The web based ISCP curriculum and its assessment system, including the MRCS and MRCS (ENT), have been approved by the General Medical Council (GMC).

An MRCS Assessment Review took place during 2017/18 and 2018/19, to ensure that MRCS content continues to articulate with changes to ISCP. During 2018, the MRCS assessment blueprint was mapped to the Generic Professional Capabilities (GPCs) framework described in the GMC May 2017 document: *Excellence by Design: Standards for Postgraduate Curricula*. The MRCS Content Guide continues to set out for candidates a comprehensive description of the breadth and depth of the knowledge, skills and attributes expected of them, and thus provides a framework around which a programme of preparation and revision can be structured. It also sets out the areas in which candidates will be examined. It has been formatted to maximise its accessibility to candidates and examiners and is available on the intercollegiate website at:
https://www.intercollegiatemrcsexams.org.uk/mrcs/candidate-guidance/

ICBSE will continue to ensure that the MRCS syllabus maps the curriculum agreed by the JCST and GMC.

4.   The MRCS Examination

4.1   Part A (written paper)

Based on the ISCP curriculum, a syllabus blueprint for the Part A examination sets out a broad specification for the numbers of questions on each topic to be included in each paper of the examination. It is not possible to sample the entire syllabus within a single Part A paper, but the blueprint and specification ensures that the common and important content is routinely covered, and that the entire syllabus is sampled over time.

Questions are coded according to the area of the syllabus to which they relate and are held in a computerised item bank. Groups of question writers are commissioned to produce new questions according to the agreed specification and, following editing and specialist review, these questions are added to the item bank. For each diet of the examination, questions are selected from the bank using the examination blueprint and are compiled into a paper by the MCQ question paper group of the ICBSE. A linguistic review is undertaken of all questions in Part A.

Questions are carefully planned from the outset to be at an appropriate level of difficulty. The standard for the paper is originally set using a modification of the Angoff procedure where a group of colleagues estimate the performance of a notional 'just good enough to pass' candidate. In order to ensure that standards are set at an appropriate and realistic level the colleagues include practising surgeons, specialist basic scientists, trainers, trainees and a patient representative.

A number of 'marker' questions taken from a previous examination are included in each Part A paper and are used to maintain the standard of the examination between full applications of the Angoff procedure.

Following each examination, a meeting is held at which the performance of candidates in each question is scrutinised together with their performance on the test overall. A range of statistical measures is used to evaluate the reliability and facility of the examination and its individual questions. It is at this stage that candidate feedback on the examination is considered and taken into account, when deciding whether or not to exclude a specific question from the overall examination outcome. Using the benchmark of the previously described Angoff exercise, the performance of candidates on the marker questions is reviewed together with other statistical data from the present and previous examinations to set the pass/fail cut-off mark.

Candidates are given their Part A score and the score required to pass the examination, thus giving them an indication of how far short of, or above, the required standard they are. In addition, candidates are provided with their score in the main broad content areas (BCAs) along with the average score of all candidates in those BCAs within their cohort. This feedback is provided to both unsuccessful and successful candidates to allow trainees to reflect on their performance in the exam and for their future professional development.

2022/23 Part A (written paper) Review of Activity

After assessment of remote delivery during the pandemic, MRCS Part A adopted a test centre approach, The test centre approach was established to maintain the benefits of computer-based test delivery (delivered by Pearson Vue (PV), whilst providing assurance of

quality management and security of assessment materials, in particular protecting against the dissemination of material which is achieved through test-centre delivered invigilation.

Following from the May 2022 diet, ICBSE have continued to support the delivery of MRCS Part A through the test-centre delivery, with a further three diets delivered from September 2022

A review meeting was held between representatives of ICBSE, the four Colleges and Pearson Vue in February 2023. The group discussed issues that the Colleges and candidates have experienced collectively in the first three diets, including: capacity issues; centre security; and customer service. PV outlined actions planned to address each of these to varying degrees. It has been agreed, therefore, that ICBSE and the four Colleges should continue employing PV to deliver the MRCS Part A in the UK and internationally. This is based on continued support for in-person computer-based testing, broad satisfaction with PV's overall ability to deliver this, and the constructive discussions identifying improvements in key areas.

ICBSE and the four colleges agreed to continue to use PV for the foreseeable future.

Summary descriptive statistics: MRCS Part A (written paper)

	Total number of candidates	Passing % (and number)	Failing % (and number)	Pass mark %	Measure of reliability*	Measurement error**
September 2022	4495	39.2 (1763)	61.8 (2732)	67.0	0.95	7.39
January 2023	3275	37.6 (1533)	62.4 (1742)	68.8	0.96	7.49
May 2023	3716	49.0 (1822)	51.0 (1894)	64.8	0.96	7.12

* An expression of the consistency and reproducibility (precision) of the examination. The measure used here is KR-20.
** Measurement error refers to the difference between the 'true' score and the score obtained in an assessment. Measurement error is present in all assessments but is minimised by good item design and test construction. The measurement error here is expressed as a score out of 300.

4.2 Part B (OSCE)

A team of Broad Content Area (BCA) specialists, headed by leads and deputies using detailed templates and following detailed writing guidance, develop scenarios and questions for the OSCE stations. Draft questions are scrutinised by a team of reviewers before being approved for piloting. All questions are piloted either as an unidentified extra station in a 'live' examination or as part of a specially arranged event. Following further revision as necessary, these new questions are then added to the question bank. The GMC have confirmed that, given ICBSE's extensive quality assurance procedures for ensuring new questions are appropriate for the exam, ICBSE can put new questions straight into the live question bank without the question needing to be piloted as a non-contributory station.

Questions from the bank are then selected and grouped into examination circuits to achieve the appropriate balance of content and difficulty. A number of different circuits are selected for use throughout the examination period, with the same circuit used in each of the Colleges

on any given day. Each circuit is taken by a statistically significant number of candidates for quality assurance purposes.

At the end of each examination diet, the pass/fail boundaries are agreed at a standard setting meeting attended by the BCAs and representatives from each of the Colleges.

ICBSE continues to review and further develop the MRCS examination based on the evidence available. In December 2010 it established a working party to undertake a review of the examination programme to commence after three diets of the May 2010 revision; evidence for the proposed changes was based on six diets of the examination (May 2010 to February 2012). The review cycle for the exam continued in 2017/18 when the OSCE Review Panel reconvened to consider advancements and improvements to the exam, which resulted in a GMC submission that was heard in June 2019 and approved in July 2019. The full GMC submission can be obtained as a separate document from ICBSE. A summary of major changes is included in the bullet points below and in Section 6.4 of this report. The changes to the exam were implemented from the October 2020 exam diet although pandemic-related changes to the OSCE were also incorporated in this diet. The development and delivery Committee has taken over examination revisions.

2022/23 Part B (OSCE) Review of Activity

In 2022/23 examination diets for Part B, we continued to see the model of agreed delivery that was implemented in October 2021, which was the planned pre-covid structure and which implemented GMC approved changes that reduced the number of stations in the examination from 18 to 17 (by reducing the number of physical examination stations from 4 to 3).

The examination continued to be successfully delivered in the UK and Ireland across the four Surgical Colleges. We saw a continued development of overseas activity for Part B with overseas examinations delivered as follows:

College	Centre	Date
England	Cairo	Dec 2022
Edinburgh	Dubai	Dec 2022
Ireland	Penang	Jan 2023
Edinburgh	Kuala Lumpur	Jan 2023
Edinburgh	Cairo	Feb 2023
England	Cairo	Mar 2023
Ireland	Bahrain	Mar 2023
Edinburgh	Delhi	Mar 2023
Edinburgh	Kerala	Apr 2023
Edinburgh	Islamabad	May 2023

Development plans for MRCS Part B (OSCE)

ICBSE went out to tender and subsequently agreed to work with RISR as the provider for the online question banking and tablet marking software. The new system is being delivered as a two-phase project as follows:

- **Phase 1** – Question management software to support the development of OSCE circuits via the examination blueprint. This will allow Colleges to download agreed circuits via the system, and ICBSE can manage and develop circuit scenarios on the system. ICBSE aims to start implementing the new system from the February 2024 diet, with testing and training taking place in Autumn 2023.

- **Phase 2** – Tablet marking via iPad will allow examiners to mark directly onto the RISR Assess system, reducing the need for manual marking and data upload. This should make the marking process more streamlined and straightforward, in addition to reducing the potential for human error. The aim is for this phase to be implemented in 2024, subject to four-college approval.

Standard Setting

Each standard setting meeting continues to begin with an analysis of the level of discrimination and facility of each of the OSCE circuits and their constituent stations, including a review of candidate, examiner and assessor feedback, to ensure consistency and comparability of demand.

Each candidate's performance on each of the stations continues to be assessed in two ways:
- a mark out of 20 is awarded using a structured mark sheet containing assessment criteria for each content area and for each assessed domain;
- an overall judgement is given using one of the categories: pass, borderline or fail.

The following information is therefore available for each candidate:
- a total mark for each station;
- a category result for each station i.e., pass, borderline, fail;
- a total mark for the OSCE;
- a total mark for each of the two combined BCAs, described by the shorthand, 'Knowledge' and 'Skills'.

The borderline regression method of standard setting is used to determine the contribution of each station to the pass mark. These contributions are summed to give a notional pass mark for each of Knowledge and Skills for each circuit.

The review of the OSCE carried out in 2012 concluded that using the borderline regression method and adding 0.5 Standard Error of Measurement (SEM) to each broad content area pass mark retained the previous rigour. This position had been accepted by the GMC, as was the recognition that the ICBSE would retain some flexibility in the multiple of the SEM to be used based on an evaluation of all of the available evidence.

The experience of the first examination conducted under the revised rules (that of February 2013) was that the addition of 0.5 SEM to each of Knowledge and Skills did not maintain the previous standard and it was agreed that the multiple to be used should be 0.84 SEM. It was further agreed that the addition of 0.84 SEM should remain the default position until evidence suggested that it should be changed, and this figure has been used in all subsequent examinations apart from OSCEs held under pandemic conditions where there were fewer questions, and the examination could test on knowledge and not skills. It may be noted that, because both Knowledge and Skills have to be passed at the same sitting, the SEM for the OSCE as a whole may be considered to be in excess of the 1.0 value widely accepted as the desirable minimum.

To safeguard the interests of patients, and as a driver to learning, it is a GMC requirement for passing the OSCE that candidates must achieve a minimum level of competence in each broad content area at the same examination.

At its inception, the MRCS Part B (OSCE) examination used a single pass rule at each examination session, even though the form of the test (circuit) was not identical on every day

of that examination session. Parity of standards was maintained through statistical methods and through scrutiny by assessors.

To enhance further the standard setting process ICBSE, with GMC approval, agreed that a different pass mark should be generated (using the current borderline regression methodology) by circuit, rather than for the examination as a whole. This means that, though the pass mark will be similar for different circuits, it is unlikely to be identical. This will reflect the variation in the relative difficulties of the scenarios that make up any given circuit. The consequences of doing so have been found to yield a very similar overall pass rate. This current standard setting process for the MRCS Part B came into effect from the October 2014 examination.

Each candidate is given detailed feedback showing their mark on each broad content area (Knowledge and Skills) and for the OSCE overall. However, as part of a wider ICBSE policy to expand the feedback provided to candidates, a phased approach to provide the MRCS Part B candidates with feedback by broad content area was developed. ICBSE delivered the extended Part B (OSCE) feedback from the February 2019 diet.

In addition, the OSCE Subgroup monitor and analyse the performance of the OSCE scenarios during the standard setting process. A chart has been developed that combines the written feedback and the scenario performance data. The resulting document enables the Sub Group to make an informed decision when agreeing the pass mark.

Summary descriptive statistics: MRCS Part B (OSCE)

	Total number of candidates	Passing % (and number)	Failing % (and number)	Pass mark (range for all circuits)	Measure of reliability* (range for all circuits)	Measurement error** raw (range for all circuits)
October 2022	602	53.16 (320)	46.84 (282)	116 - 121	0.65 – 0.82	7.76 – 9.22
February 2023	719	61.34 (441)	38.66 (278)	115 - 118	0.63 – 0.79	7.41 – 9.71
May 2023	723	60.72 (439)	39.28 (284)	116 - 120	0.66 – 0.88	6.80 – 8.83

* An expression of the consistency and reproducibility (precision) of the examination. The measure used here is Cronbach's alpha.
** Measurement error refers to the difference between the 'true' score and the score obtained in an assessment. Measurement error is present in all assessments but is minimised by good item design and test construction. The measurement error here is expressed as a mark out of 260 for the adapted format of the exam.

5.   The MRCS (ENT) Examination

The MRCS (ENT) qualification remains a crucial milestone that must be achieved if trainees are to progress to specialty surgical training as defined by the surgical Specialty Advisory Committees (SACs). The purpose of the MRCS (ENT) is to determine that trainees have acquired the knowledge, skills and attributes required for the completion of core training in surgery and, for trainees following the Intercollegiate Surgical Curriculum Programme, to determine their ability to progress to higher specialist training in otorhinolaryngology.

It is anticipated that on achievement of the intended outcomes of the curriculum the surgical trainee will be able to perform as a member of the team caring for ENT surgical patients. They will be able to receive patients as emergencies, review patients in clinics and initiate management and diagnostic processes based on a reasonable differential diagnosis.

Candidates who successfully complete the examination will be able to manage the perioperative care of patients, recognise common complications and be able to deal with them or know to whom to refer them. The trainee will be a safe and useful assistant in the operating room and be able to perform some simple procedures under minimal supervision and perform more complex procedures under direct supervision.

Standard setting the MRCS (ENT) Examination

Changes to the running of the ENT examination (i.e., candidates now undertaking MRCS Part A, and then MRCS (ENT) OSCE) means that candidates who sit MRCS Part A alongside the MRCS (ENT) OSCE will remain eligible for the MRCS (ENT) only.

MRCS Part A is now sat as part of the ENT qualification, and the standard setting procedure is described above (section 4) and is based on an initial Angoff process, the use of marker questions and the scrutiny of individual items and statistics at a standard setting meeting.

The standard setting technique used in the OSCE to determine the pass mark is an Angoff process: all examiners determine a pass mark for each station based upon the minimum level of competence expected of an ENT trainee at the end of their CT2/ST2 post and before entry to higher surgical training or just at the start of higher surgical training. Using this method, at least 12–15 examiners will ascribe a pass mark to each station. The marks are totalled and averaged, and this then determines the region of the pass mark. The final pass mark is determined by inspection of the mark distribution around the Angoff pass mark.

2022/23 MRCS (ENT) Examination Review of Activity

MRCS ENT Part 2 (OSCE) retained the delivery format established during the pandemic, which includes:

– The exam has two parts: written stations delivered remotely using the same questions for all candidates; clinical stations would be delivered in a short six- or seven-station circuit (four examined stations and two or three preparation stations). The marks are combined to a single pass mark, as at present.
– The ear examination station was removed from the temporary circuit.
– The examination was held at three of the four Colleges (England, Ireland and one in Scotland) to reduce travel for candidates.
– Some Colleges' candidates therefore took the exam at a different College.

The MRCS (ENT) sub-group continue to monitor and develop the MRCS (ENT) OSCE question bank. They have also liaised with the four Surgical Royal Colleges to improve the recruitment and induction processes for new examiners to expand the examiner cohort to meet demand.

The below table outlines MRCS (ENT) diets sat from October 2022 – May 2023.

Summary descriptive statistics

MRCS (ENT) OSCE

	Total number sat	Passing % (and number)	Failing % (and number)	Day	Pass Mark %	Measure of reliability*	Measurement error** % (raw)
October 2022	99	84.8 (84)	15.2 (15)	1	71.73	0.850	11.517
				2	71.53	0.746	12.790
				3	71.73	0.856	11.839
February 2023	96	82.3 (79)	17.7 (17)	1	69.23	0.833	13.092
				2	71.15	0.754	11.491
May 2023	113	83.2 (94)	17.0 (19)	1	71.73	0.816	13.054
				2	71.73	0.776	12.458

* An expression of the consistency and reproducibility (precision) of the examination. The measure used here is Cronbach's alpha.
** Measurement error refers to the difference between the 'true' score and the score obtained in an assessment. Measurement error is present in all assessments but is minimised by good item design and test construction.

6. Quality Assurance

6.1 The role of the Internal Quality Assurance Committee (IQA)

The quality of the MRCS and MRCS (ENT) examinations is monitored by the ICBSE's intercollegiate Internal Quality Assurance Committee. The IQA meets three times each year and receives, for each part of the examinations, the following information:

- overall pass rates and descriptive statistics for the latest diet and previous diets
- a breakdown of the feedback from the candidates and examiners
- quality assurance reports from the Assessor group
- the Chair reports and minutes from the examination subgroups.

After each examination, every candidate is invited to complete an anonymous feedback questionnaire. Examiners are invited to complete similar questionnaires. The IQA reviews the feedback from examiners and candidates and correlates them with the statistical information from the examination. IQA also receives a feedback report from the Assessors for each diet of examinations of the utility and performance of the questions and examiners.

In its interpretation of examination data, the IQA is advised and assisted by an independent Educational Consultant who analyses the information and writes a brief report on each part of the examination, drawing any potential anomalies to the attention of the Committee for consideration and action.

The IQA Committee will refer matters that it considers needing attention or further scrutiny to the appropriate subgroups of ICBSE. It also makes regular reports and recommendations to the ICBSE, which has overall responsibility for the MRCS and MRCS (ENT) examinations.

It is also the remit of the IQA Committee to review and implement the Joint Surgical Colleges' Meeting (JSCM) Equality and Diversity policy. IQA continues to develop and update a risk register for the MRCS and MRCS (ENT) examinations.

6.2   Assessors

Independent Assessors, established by IQA in 2010/11 and recruited from senior MRCS/MRCS (ENT) examiners, attend every diet of the MRCS Part B (OSCE) and MRCS (ENT) OSCE at each College. Their role is to:

- monitor, evaluate and provide feedback on the conduct and performance of examiners, including supervising examiners, in all components of the MRCS and MRCS (ENT) to ensure that the highest standards of examining are achieved and maintained;
- act as guardians of standards for the intercollegiate examinations over time and across examination venues;
- enhance the professional experience of examiners by encouraging reflective practice;
- act as mentors for new examiners to help them build confidence and develop into the role;
- provide feedback to examiners via examiner feedback reports issued after each diet;
- assist in the review of the assessments used to enhance the comparability, validity and reliability of the examinations.

Considerable activity has gone into investigating the potential for remote monitoring of the MRCS Part B (OSCE) that would allow Assessors to monitor the examiners from a separate room. It is hoped that the system will be less intimidating to the examiners and less obtrusive to the candidates but while further research into this development is needed, there are no current plans to introduce this change.

2022/23 IQA Review of Activity

In addition to the examination-specific development projects outlined previously in this report the Internal Quality Assurance (IQA) committee has continued its activity in a number of key areas, including differential attainment (examiner diversity training; action planning), reviewing incident reporting, appeal reporting, and ongoing work around policy development. The IQA is about to make recommendation to ICBSE about the feasibility of revising examiner recruitment criteria which may widen the pool of MRCS and MRCS (ENT) examiners. If accepted by ICBSE, JSCM will need to agree any change.

6.3   Equality & Diversity

With the introduction of the JSCM Equality and Diversity Policy in July 2013, the ICBSE has undertaken and completed multiple Equality & Diversity work streams since 2013 to ensure all MRCS and MRCS (ENT) processes match best practice wherever possible.

6.3.1   Equality & Diversity examiner training

Following the commissioning of E&D examiner training, ICBSE continues to ensure that E&D training for examiners is upheld, and that all candidates experience a fair examination. All examiners undergo E&D training when they are appointed, and again at the renewal of their appointment (6 years). This will help to ensure all candidates experience a fair examination and mitigate the risk of any unintended bias within the examination. IQA, in conjunction with the Surgical Royal Colleges, continue to monitor the completion rate and will review and update the training material continuously.

6.3.2 Review and improve the collection and monitoring of equal opportunities data

In addition to the ongoing analysis by the GMC of trainee examinations outcomes, ICBSE continue to review the processes for collecting and monitoring the Equal Opportunities (EO) data collected from the candidature and examiners. The reporting of the first set of enhanced EO data was included in the 2014-15 ICBSE Annual Report and continues to be monitored and published. A further set of enhanced data for 2022/23 is included in Appendix 1 below.

6.4 Research

The ICBSE, with the support from the four Surgical Royal Colleges, embarked on a process of improving the surgical research portfolio to match the activity of other postgraduate medical institutions. An Intercollegiate Research Fellow was recruited in 2015 who embarked on several research projects primarily looking at the predictive validity of the MRCS examination. The Fellow constructed a database of MRCS Part A and B UK candidate activity from 2008 to 2019 including scores, number of attempts, pass rates, demographics, stage of training, medical school and Deanery. Professor Peter Brennan was appointed to a newly designated post of ICBSE Research Convenor in 2017 and the Research Fellow obtained his PhD on this work published and listed below.

In addition, access has been granted by the GMC to UKMED to investigate the potential relationship between medical school performance and performance in the MRCS, and the possible predictive validity of medical school entry exams (UCAT, BMAT and GAMSAT and future MRCS performance). Finally, JCIE has agreement to share FRCS data to compare the predictive validity against MRCS performance which will provide a complete picture of performance trends throughout the surgical pathway.

A second Intercollegiate Research Fellow was recruited during 2019/20 to expand the ICBSE research activity as outlined above, and his term was extended for another year. He completed his PhD in 2022. Over the last year, the research team has won several national awards for the research work to date. No decision has yet been made about the provision of funding between the Colleges for a third Research Fellowship. A collaboration is underway with the other intercollegiate committees – the Joint Committee for Intercollegiate Examinations (JCIE) and the Joint Committee for Surgical Training (JCST) – framing a consolidated approach to look at surgical training and assessment more holistically when identifying the requirement for ongoing work in this area.

Recent ICBSE Research-related publications from the last three years are listed below.

1. Ellis R, Brennan PA, Hines J, Lee AJ, Cleland J. Examining the diversity of MRCS examiners, The Surgeon (in press), https://doi.org/10.1016/ j.surge.2023.02.002

2. Ellis R, Cleland J, Scrimgeour, DSG, Lee AJ, Brennan PA. A cross-sectional study examining the association between MRCS performance and surgeons receiving sanctions against their medical registration, The Surgeon (in press) https://doi.org/10.1016/j.surge.2021.04.003

3. Ellis R, Brennan PA, Scrimgeour DSG, et al. Does performance at the intercollegiate Membership of the Royal Colleges of Surgeons (MRCS) examination vary according to UK medical school and course type? A retrospective cohort study. BMJ Open 2022;12:e054616. doi:10.1136

4. Ellis R, Brennan PA, Lee AJ, Scrimgeour DS, Cleland J. Differential attainment at MRCS according to gender, ethnicity, age and socioeconomic factors: a retrospective cohort study. Journal of the Royal Society of Medicine. February 2022. doi:10.1177/01410768221079018

5. Ellis, Ricky & Cleland, Jennifer & Lee, Aj & Scrimgeour, Duncan & Brennan, Peter. (2022). Can MRCS exam performance predict surgical specialty destination?. Bulletin of The Royal College of Surgeons of England. 104. 20-27. 10.1308/rcsbull.2022.9.

6. Ricky Ellis, Jennifer Cleland, Amanda J. Lee, Duncan S. G. Scrimgeour & Peter A. Brennan (2021): A cross-sectional study examining MRCS performance by core surgical training location, Medical Teacher, DOI: 10.1080/0142159X.2021.1995599

7. Ellis R, Hardie JA, Summerton DJ, Brennan PA. Dual surgeon operating to improve patient safety. Br J Oral Maxillofac Surg. 2021 Feb 24:S0266-4356(21)00080-2. doi: 10.1016/j.bjoms.2021.02.014.

8. Ellis R, Cleland J, Scrimgeour D, Lee AJ, Brennan PA. The impact of disability on performance in a high-stakes postgraduate surgical examination: a retrospective cohort study. J R Soc Med. 2021 Jul 16:1410768211032573. doi: 10.1177/01410768211032573.

9. Ellis R, Cleland J, Scrimgeour DSG, Lee AJ, Brennan PA. A cross-sectional study examining the association between MRCS performance and surgeons receiving sanctions against their medical registration. Surgeon. 2021 May 21:S1479-666X(21)00076-7. doi: 10.1016/j.surge.2021.04.003.

10. Ellis R, Oeppen RS, Brennan PA. Virtual postgraduate exams and assessments: the challenges of online delivery and optimising performance. Br J Oral Maxillofac Surg. 2021 Feb;59(2):233-237. doi: 10.1016/j.bjoms.2020.12.011

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Mr John Hines, ICBSE Chair
Pauline Whitelaw, Head of ICBSE
August 2023

PROTECTED CHARACTERISTICS: EXAMINERS/ASSESSORS AND CANDIDATES AT 3 July 2023

Candidate statistics: candidates sitting from July 2022 – June 2023
Examiners: actual on 3 July
2023

AGE PROFILE - EXAMINERS/ASSESSORS

	Edin	England	Glasgow	Ireland	TOTAL	%
20-29	0	<5	0	0	<5	0.1%
30-39	<5	<5	0	6	9	0.7%
40-49	44	40	18	38	140	10.5%
50-59	188	139	72	83	482	36.1%
60-69	187	144	51	58	440	33.0%
70+	31	61	15	22	129	9.7%
Unspecified	25	46	26	36	133	10..0%
Total	476	433	182	243	1334	100.0%

AGE PROFILE - CANDIDATES

	Edinburgh	England	Glasgow	Ireland	TOTAL	%
20-29	2498	5502	131	794	8925	44.8%
30-39	2782	5500	213	1039	9534	47.8%
40-49	394	712	40	161	1307	6.6%
50-59	37	68	<5	19	125	0.6%
60-69	<5	6	0	<5	9	0.1
70+	0	0	0	0	0	0.0%
Unspecified	29	0	0	0	29	0.0%
Total	5741	11788	385	2015	19929	100.0%

GENDER PROFILE - EXAMINERS/ASSESSORS

	Edin	England	Glasgow	Ireland	TOTAL	%
Female	62	85	28	49	224	16.8%
Male	411	347	154	193	1105	82.8%
Prefer not to say	<5	<5	0	0	3	0.2%
Transgender	<5	0	0	<5	2	0.1%
Total	476	433	182	243	1334	100.0%

GENDER PROFILE - CANDIDATES

	Edinburgh	England	Glasgow	Ireland	TOTAL	%
Female	1661	3642	115	671	6089	30.6%
Male	3578	8117	246	1339	13280	66.6%
Prefer not to say	222	22	10	<5	256	1.3%
Transgender	0	<5	0	0	1	0.0%
Unspecified	280	6	14	<5	303	1.5%
Total	5741	11788	385	2015	19929	100.0%

MARITAL STATUS PROFILE - EXAMINERS/ASSESSORS

	Edin	England	Glasgow	Ireland	TOTAL	%
Civil Partnership	0	<5	0	0	<5	0.0%
Cohabiting	<5	<5	<5	<5	9	0.7%
Married	223	100	64	95	482	36.1%
Prefer not to say	<5	<5	<5	<5	11	0.8%
Separated/Divorced	10	<5	<5	<5	22	1.6%
Single	16	10	<5	14	41	3.1%
Unspecified	220	313	107	126	766	57.4%
Widowed	0	<5	0	<5	<5	0.1%
Total	476	433	182	243	1334	100.0%

MARITAL STATUS PROFILE - CANDIDATES

	Edinburgh	England	Glasgow	Ireland	TOTAL	%
Civil Partnership	13	28	5	<5	47	0.2%
Cohabiting	27	256	17	<5	301	1.5%
Married	1196	3637	113	56	5002	25.1%
Prefer not to say	576	337	15	11	939	4.7%
Separated/Divorced	27	56	0	0	83	0.4%
Single	2024	6369	161	126	8680	43.6%
Unspecified	1874	1100	74	1820	4868	24.4%
Widowed	<5	5	0	0	9	0.0%
Total	5741	11788	385	2015	19929	100.0%

SEXUAL ORIENTATION PROFILE - EXAMINERS/ASSESSORS

	Edin	England	Glasgow	Ireland	TOTAL	%
Bisexual	<5	<5	<5	<5	12	0.9%
Heterosexual	327	189	102	164	782	58.6%
Homosexual	<5	<5	<5	<5	5	0.4%
Prefer not to say	8	7	5	7	27	2.0%
Unspecified	136	232	73	67	508	38.1%
Total	476	433	182	243	1334	100.0%

SEXUAL ORIENTATION PROFILE - CANDIDATES

	Edinburgh	England	Glasgow	Ireland	TOTAL	%
Bisexual	56	119	12	<5	190	1.0%
Heterosexual	3781	8914	241	166	13102	65.7%
Homosexual	<5	204	<5	<5	211	1.1%
Prefer not to say	1527	1119	35	53	2734	13.7%
Unspecified	374	1432	96	1790	3692	18.5%
Total	5741	11788	385	2015	19929	100.0%

RELIGIOUS PROFILE - EXAMINERS/ASSESSORS

	Edin	England	Glasgow	Ireland	TOTAL	%
Buddhist	16	<5	<5	8	28	2.1%
Christian	119	61	28	69	277	20.8%
Hindu	84	31	31	24	170	12.7%

RELIGIOUS PROFILE - CANDIDATES

	Edinburgh	England	Glasgow	Ireland	TOTAL	%
Buddhist	164	219	7	8	398	2.0%
Christian	589	1721	47	25	2382	12.0%
Hindu	807	1486	41	21	2355	11.8%

						%
Jewish	<5	<5	0	0	**4**	0.3%
Muslim	62	56	23	55	**196**	14.7%
No religion	31	15	7	11	**64**	4.8%
Other	<5	<5	7	<5	**17**	1.3%
Prefer not to say	8	<5	5	6	**23**	1.7%
Sikh	<5	5	<5	<5	**14**	1.0%
Unspecified	148	253	76	64	**541**	40.6%
Total	**476**	**433**	**182**	**243**	**1334**	100.0%

						%
Jewish	<5	12	0	<5	**16**	0.1%
Muslim	2119	5373	119	144	**7755**	38.9%
No religion	134	954	41	10	**1139**	5.7%
Other	135	101	13	6	**255**	1.3%
Prefer not to say	886	652	25	21	**1584**	7.9%
Sikh	20	73	<5	0	**95**	0.5%
Unspecified	884	1197	90	1779	**3950**	19.8%
Total	**5741**	**11788**	**385**	**2015**	**19929**	100.0%

DISABILITY PROFILE - EXAMINERS/ASSESSORS

	Edin	England	Glasgow	Ireland	TOTAL	%
No	413	215	109	179	**916**	68.7%
Partial	<5	<5	0	<5	**4**	0.3%
Unspecified	59	214	71	61	**405**	30.4%
Yes	<5	<5	<5	<5	**9**	0.7%
Total	**476**	**433**	**182**	**243**	**1334**	100.0%

DISABILITY PROFILE - CANDIDATES

	Edinburgh	England	Glasgow	Ireland	TOTAL	%
No	5037	10944	317	258	**16556**	83.1%
Partial	326	141	10	<5	**479**	2.4%
Unspecified	321	624	56	1755	**2756**	13.8%
Yes	57	79	<5	0	**138**	0.7%
Total	**5741**	**11788**	**385**	**2015**	**19929**	100.0%

ETHNICITY - EXAMINERS AND ASSESSORS

With GMC/IMC Number	Edin	England	Glasgow	Ireland	TOTAL	%
Asian or Asian British	128	59	62	28	**277**	32.1%
Black / African / Caribbean / Black British	9	<5	<5	<5	**17**	0.2%
Mixed / Multiple Ethnic Groups	22	10	<5	6	**42**	4.9%
Other Ethnic Group	20	17	<5	13	**53**	6.1%
Prefer not to say	<5	<5	0	<5	**5**	0.6%
Unspecified	50	112	40	30	**232**	26.7%
White	101	53	42	41	**237**	27.5%

ETHNICITY - CANDIDATES (FY 2022-23)

With GMC/IMC Number	Edinburgh	England	Glasgow	Ireland	TOTAL	%
Asian or Asian British	360	1471	32	18	**1881**	31.0%
Black / African / Caribbean / Black British	60	433	18	5	**516**	8.5%
Mixed / Multiple Ethnic Groups	46	307	15	<5	**372**	6.1%
Other Ethnic Group	86	692	25	10	**813**	13.4%
Prefer not to say	232	187	<5	<5	**424**	7.0%
Unspecified	41	349	7	248	**645**	10.6%
White	172	1175	60	5	**1412**	23.3%

						%
White Gypsy or Irish Traveller	0	0	0	0	0	0.0%
Total	332	254	153	124	863	100.0%

						%
White Gypsy or Irish Traveller	0	<5	0	0	<5	0.0%
Total	997	4615	158	294	6064	100.0%

No GMC/IMC Number	Edin	England	Glasgow	Ireland	TOTAL	%
Asian or Asian British	52	26	6	26	110	23.4%
Black / African / Caribbean / Black Br.	6	2	0	4	12	2.5%
Mixed / Multiple Ethnic Groups	18	4	0	15	37	7.9%
Other Ethnic Group	10	33	3	17	63	13.4%
Prefer not to say	0	1	0	0	1	0.2%
Unspecified	31	77	9	29	146	31.0%
White	27	36	11	28	102	21.7%
White Gypsy or Irish Traveller	0	0	0	0	0	0.0
Total	144	179	29	119	471	100.0%

No GMC/IMC Number	Edinburgh	England	Glasgow	Ireland	TOTAL	%
Asian or Asian British	1753	2691	61	76	4581	33.0%
Black / African / Caribbean / Black Br.	119	414	19	7	559	4.0%
Mixed / Multiple Ethnic Groups	162	291	5	22	480	3.5%
Other Ethnic Group	301	2686	38	41	3066	22.1%
Prefer not to say	848	129	<5	33	1013	7.3%
Unspecified	1511	886	93	1537	4027	29.0%
White	50	75	8	5	138	1.0%
White Gypsy or Irish Traveller	0	<5	0	0	<5	0.0
Total	4744	7173	227	1721	13865	100.0%

All Examiners/Assessors	Edin	England	Glasgow	Ireland	TOTAL	%
Asian or Asian British	180	85	68	54	387	29.0%
Black / African / Caribbean / Black Br.	15	<5	<5	8	29	2.2%
Mixed / Multiple Ethnic Groups	40	14	<5	21	79	5.9%
Other Ethnic Group	30	50	6	30	116	8.7%
Prefer not to say	<5	<5	0	<5	6	0.4%
Unspecified	81	189	49	59	378	28.3%
White	128	89	53	69	339	25.4%
White Gypsy or Irish Traveller	0	0	0	0	0	0.0%

All Candidates	Edinburgh	England	Glasgow	Ireland	TOTAL	%
Asian or Asian British	2113	4162	93	94	6462	32.4%
Black / African / Caribbean / Black Br.	179	847	37	12	1075	5.4%
Mixed / Multiple Ethnic Groups	208	598	20	26	852	4.3%
Other Ethnic Group	387	3378	63	51	3879	19.5%
Prefer not to say	1080	316	<5	37	1437	7.2%
Unspecified	1552	1235	100	1785	4672	23.4%
White	222	1250	68	10	1550	7.8%
White Gypsy or Irish Traveller	0	<5	0	0	<5	0.0%

Total		476	433	182	243	1334	100.0 %		Total		5741	11788	385	2015	19929	100.0 %