

Quality Assurance of Basic Medical Education

Report on University of Edinburgh
College of Medicine and Veterinary Medicine

December 2008

**General
Medical
Council**

Regulating doctors
Ensuring good medical practice

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The GMC's role in medical education

1. The Education Committee of the General Medical Council (GMC) sets and monitors standards in medical education. The standards for undergraduate medical education are set out in the publication *Tomorrow's Doctors*.
2. In order to ensure that UK medical schools maintain these standards the GMC runs a quality assurance programme, which involves regular assessments and visits to schools. This programme is called Quality Assurance of Basic Medical Education (QABME) and is carried out on behalf of the GMC Education Committee by a team of medical and educational professionals, student representatives and lay members.
3. The team makes determinations as to whether these schools are meeting the standards in *Tomorrow's Doctors* after analysing extensive School documentation and completing a range of quality assurance activities at the School and partner institutions. The determinations in this report have been endorsed by the GMC Education Committee.

Introduction

4. This is the 2007/08 quality assurance report to the GMC Education Committee on the established medical school at the University of Edinburgh (the School). In 1998 the School implemented a new integrated five-year curriculum designed to align with *Tomorrow's Doctors*. The MBChB curriculum is described as a learning spiral which builds on prior learning at each stage and is integrated horizontally and vertically.

5. In the last GMC report (2000) we asked the School to ensure appropriate linkage of its five-year curriculum with the PRHO year (now Foundation Year 1) and to introduce a distinct period of PRHO 'shadowing'. We also asked the School to continue to strengthen the horizontal and vertical integration of the curriculum and to review its approach to complementary medicine. We were concerned about the reliance placed on the viva in the proposed final examinations and asked the School to consider proposed arrangements for the final examinations, to clarify assessment arrangements for staff and students and to improve the quality of appraisal students receive after clinical attachments.

The QABME team

6. The visiting team members appointed by the GMC Education Committee to undertake the quality assurance visits were:

Professor Anne Garden (Team Leader)
Professor Peter McCrorie (Deputy Team Leader)
Dr Rebecca Dobson
Mr Thomas Foley
Mr Ian Fraser
Professor Steven Heys
Dr Martin Rowan-Robinson
Dr Fiona Sim
Dr Rafik Taibjee
Mrs Barbara Wright

7. Miss Elizabeth Leggatt (GMC Education Quality Officer) supported the team.

Our programme of visits in 2007/08

8. The team conducted seven quality assurance visits on: 8 November 2007, 28 and 29 February 2008, 9 April 2008, 30 May 2008, 5 and 6 June 2008, 12 and 13 June 2008 and 18 July 2008.

9. The findings of the team have been reached by reviewing documentary evidence submitted by the School and by undertaking the following activities:

- a. Meetings with a variety of members of the School.
- b. Site visits to various NHS hospitals.
- c. Site visits to various GP practices.
- d. Discussions with students.
- e. Discussions with teachers, including general practitioners.
- f. Observation of the Year 4 obstetrics and gynaecology and haematology, oncology, palliative care, breast disease, renal medicine and urology (HOPB RU) examination.
- g. Observation of the final Clinical Practice Examination (CPE), the portfolio viva and a section of the Safety in Practice and Prescribing online examination (SIPP).
- h. Observation of interim exam boards and review of the minutes from the final exam board.
- i. Discussions with Foundation Year 1 doctors and their educational supervisors.
- j. Observation of a demonstration of online teaching materials via the Edinburgh Electronic Medical Curriculum (EEMeC).

The report

Summary of key findings

10. Subject to the requirement in paragraph 12, the School's MBChB Programme meets the requirements of *Tomorrow's Doctors* in accordance with Section 5(3) of the Medical Act 1983.

11. Where there are requirements, the School is requested to respond to the requirements with timelines for action within the 28 day right of reply to the report.

Requirements

12. The School is required to:

- a. Review and simplify the curriculum structure to make it more easily understood by student and staff (see paragraph 13a – 13b).
- b. Ensure an overarching assessment group is empowered to coordinate assessment throughout the programme, improve standardisation of assessments and ensure final year in-course assessments are more consistent (see paragraphs 83-84 and 87-88).

Recommendations

13. To enhance the quality of the programme we have identified the following recommendations.

- a. Consolidate the vertical and portfolio themes (see paragraph 38) and rationalise the number of vertical themes running through the curriculum, to ensure students and staff understand their relevance at all stages of the curriculum (paragraph 37).
- b. Ensure the effectiveness of current supervisory structures to provide strong, clear leadership in reviewing the curriculum structure (paragraph 47).
- c. Improve engagement and communication with NHS teachers and reviewing the role and responsibilities of the Clinical Sub-Dean and the resources available to them (see paragraph 48)
- d. Ensure a coordinated approach to staff development (see paragraph 56).

- e. Ensure effective and appropriate student support mechanisms are in place by:
 - i. Revising the Director of Studies (DoS) system (see paragraph 74).
 - ii. Signposting support available to students at peripheral sites (see paragraph 76).

Areas of innovation and good practice

14. We commend the School on the following areas of good practice:
- a. The development of online resources such as EEMeC, computer-assisted learning programs and e-drug as key educational resources for staff and students (see paragraph 60).
 - b. The School's initiatives to widen the participation of under-represented groups (see paragraph 71).
 - c. The comprehensive programme of careers advice for students (see paragraph 79).
 - d. The standardisation of the content of the portfolio viva (see paragraph 91).
 - e. The development of the online Safety in Practice and Prescribing examination (SIPP) (see paragraph 92).
 - f. The School's separation of Fitness to Practise (FtP) from student welfare with the use of the Professional Development Committee (PDC) to support students in difficulty (see paragraph 107).

Curricular outcomes, content, structure and delivery

15. Having reviewed the School's documentation relating to the curriculum and interviews with students and teaching staff we are satisfied that there has not been significant change to the programme since we last visited in 2000 and that the learning outcomes for the School's MBChB programme map clearly to *Tomorrow's Doctors* and *The Scottish Doctor*.

Content

16. In the last GMC report (2000) we suggested that the School consider the core curriculum and ensure a strong link with the PRHO year (now Foundation Year 1). We consider the School has successfully aligned its curriculum with Foundation Year 1, in particular its Year 5 examinations. The Postgraduate Dean is also on the Final Year Committee which we consider good practice.

17. In Years 1 and 2 (Principles of Practice) each body system is taught and assessed. These body systems are revisited in Years 3 and 4 (The Process of Care) with an emphasis on clinical learning. Year 5 focuses on Preparation for Professional Practice. Community based teaching throughout the programme allows students to integrate the system-based learning with clinical practice. Problem based learning (PBL) sessions are incorporated in Years 1 and 2 of the programme which progress to case based learning in Years 3 and 4.

The scientific basis of practice

18. The programme adopts a systems based approach to the teaching of basic sciences which we consider comprehensive. We are satisfied that basic sciences are adequately covered within the curriculum through the 'Principles of Practice' in Years 1 and 2. Additionally we observed an excellent example of revisiting and integrating the basic sciences such as physiology and pharmacology in clinical training. The School plans to increase basic sciences in the later years of the programme, which we encourage and progress on this should be noted in the School's annual update to the GMC in 2009.

19. Foundation Year 1 doctors (F1s) reported that they would like to have revisited basic sciences in the later years of the programme, particularly anatomy, microbiology and pharmacology, although F1s mentioned that they had revisited basic sciences in Obstetrics and Gynaecology in Year 4. Both F1s and their educational supervisors stated that the F1s had enough anatomy knowledge for clinical practice.

Treatment

20. In the last GMC report (2000) we encouraged the School to review its approach to complementary medicine and to provide students with more opportunities to learn about alternative and complementary therapies. Following the report the School had conducted a two-year research project to define the place of complementary medicine in the curriculum, and to develop a coordinated programme of teaching and learning, which we are satisfied is being delivered. We noted that tutorial documentation showed alternative therapies included in the curricular outcomes.

21. Chronic illness is seen by students at GP placements particularly in Years 4 and 5. We observed Year 5 hospital based teaching which specifically addressed the identification of acutely ill patients, safe management and prescribing. PathCAL and e-drug allow students to learn about safe prescribing and practise drug dose calculations.

Clinical and Practical skills

22. Clinical Skills and Personal Professional Development is one of the vertical themes running through the curriculum. Clinical skills are introduced in Year 1 with more intensive instruction in Year 2 through weekly sessions on 'Introduction to Clinical Practice' taught at GP practices. In Year 5 students undertake five placements of eight weeks in general and acute medicine, surgery and surgical specialties, geriatric medicine and general practice, child life and health and the SSC elective, where clinical skills are signed off in log books and continuously assessed through the mini-Clinical Evaluation Examination (mini-CEX). At the end of Year 5 skills are revised during a two day 'Preparing for Professional Practice' course and students are also advised to practise skills at the Clinical Skills Centre.

23. Year 5 students stated that there was a good level of clinical exposure in the early years of the programme, for example taking blood pressure and lung function in Year 1, which had tied in with the cardiology and respiratory teaching. Observation of Year 2 clinical skills teaching confirmed integration between the clinical skills sessions and the rest of the curriculum. Year 2 and 3 students were positive about the amount of patient contact they had experienced from Year 1 onwards and Year 4 students were also particularly positive about the clinical exposure during GP attachments in Years 1 and 2.

24. At the clinical skills laboratories students are given the opportunity to practice procedures such as venepuncture and resuscitation on mannequins before attempting them on real patients. The Harvey simulator was commended by both students and staff. However some students pointed out there was often a gap in time between learning the skill and attempting it on a real patient. The School had identified this and had taken steps to address it.

Communication skills

25. We are satisfied that communication skills are taught and assessed thoroughly in each year of the curriculum.

26. Teaching staff reported that students' confidence in public speaking had improved significantly as a result of PBL sessions, as well as encouraging independent learning and team working skills.

Teaching skills

27. The School aims to ensure all students understand the basic principles of peer assisted learning (PAL). This begins with an introductory lecture in Year 1 and all students are offered at least one opportunity to deliver teaching to their peers by the end of Year 4. Year 3 students we met were positive about the teaching they had received from Year 4 students. Year 5 students reported that there is also an opportunity to teach peers at voluntary clinical skills sessions at the clinical skills laboratory. We note that participation is largely voluntary and encourage the School to expand and develop these programmes.

28. A teaching scheme has been introduced in which F1s were recruited and trained to teach Year 5 students specific skills such as fluid balance and prescribing and writing up appropriate charts.

General skills

29. General skills such as time management and self-reflection are taught and assessed thoroughly throughout the curriculum.

30. Periods of private study have been timetabled each week to encourage self-reflection in the early years of the programme and a specific module at the end of Year 2 have been introduced to increase student reflection. Additionally a number of PBL cases have been constructed to pull together different topic areas, which the School considered valuable for student reflection.

The working environment

31. The School provides a number of opportunities for students to learn about the wider NHS. A number of lectures in Year 1 in the 'Health and Society' module focus on the working of the NHS, prioritising in the NHS, health and social care, the role of occupational services and health promotion. In Year 3 the Public Health vertical theme covers the influence of health economics over clinical scenarios and in Year 5 patient management in general practice includes referral to hospital specialists, social work, statutory and non-statutory services.

Medico-legal and ethical issues

32. We found ethics teaching to be acceptable with basic theory covered in the 'Molecules to Society' modules in Years 1 and 2. We reviewed the student handbook for this course and found it to be interesting, clinically relevant with clear learning objectives. In addition each student is required to sign the 'Ethical Code for Students of Medicine' in Year 1 and there are specific tutorials on consent and research ethics and good written guidance on plagiarism. We observed a Year 2 interactive tutorial in which students discussed ways of approaching a patient and obtaining consent and the use of chaperones. Most students interviewed considered the teaching of ethics to be very good.

Public health

33. From the School's documentary evidence, public health appears to be well covered in the curriculum through the 'Social Sciences and Public Health' vertical theme and the portfolio vertical theme. During observation of clinical teaching, we saw limited evidence of the integration of public health.

Structure

34. In 2000 we asked the School to strengthen horizontal and vertical integration across the five-year programme and the School has approached this by developing integrated vertical themes. 13 vertical themes run throughout the curriculum and ensure coverage of topics that might not otherwise be included in the programme. The complexity of a theme increases as a student progresses through the programme. The Outcomes for Personal and Adaptive Learning (OPAL) Project to map each learning objective to the curriculum outcomes is under development, which will enable students to see where specific topics are visited throughout the curriculum.

35. The School highlights the vertical themes in every year student handbook. Although some students in Years 1 to 3 lacked awareness of the vertical themes we noted that knowledge related to the vertical themes increases as a student progresses through the programme. Some teaching staff also showed a lack of awareness of the themes.

36. A portfolio is used as a learning and assessment tool for the vertical themes, requiring students to reflect and write about these topics in relation to patient care. Portfolio assignments are completed throughout Years 1 to 5, with an emphasis on those in Years 3 to 5. This culminates in a portfolio viva in Year 5 where students are asked to reflect on the portfolio vertical themes and to refer to specific cases they have written about. We recognise that the portfolio viva acts as a driver for student recognition of the vertical themes in the curriculum and their relevance in medical practice.

37. We are satisfied that students in all year groups can identify their learning outcomes. However, despite the learning outcomes being clearly mapped interviews

with teachers and students indicated confusion about how the 13 vertical themes and the 12 portfolio vertical themes relate to the rest of the curriculum. The number of vertical themes adds complexity to the programme, and both staff and students are not fully engaged with all of these themes.

38. The vertical themes and portfolio vertical themes overlap strongly but are not identical. Some attempt had been made to match these themes but the School explained that they had been chosen by two different groups with a strong advocate for each one. The School recognises that the terminology used is confusing and is considering re-naming the portfolio themes 'portfolio topics' instead. We recommend that the two sets of vertical themes are rationalised and simplified into one set of themes.

39. We encourage the School to simplify the curriculum structure to make it more transparent to staff and students by improving integration across all aspects of the curriculum. The School acknowledges this issue and is working to improve understanding of the programme structure.

40. The School aspires to a spiral curriculum. However we found limited evidence support the implementation of this. Analysis of documentation and discussions with staff suggested that the programme is discipline based and run on a strong year group structure. Some Year Heads considered that responsibility for programme content rests at year level. We encourage the School to review the assessment and year structures to promote the continuous spiral nature of the curriculum and to ensure that its principles are communicated effectively to all staff and students.

Student selected components

41. Although all student selected components (SSCs) must be taken in medically related subjects, there is a good spread of topics and students are able to develop their own SSCs.

42. In Year 1 the SSC is a hospital based 'Clinical Options Project' where small groups of students perform a simple research project. In Year 2 small groups of students research a topic in depth and present their findings in a wiki. In the Year 3 'working in teams' SSC individual students shadow a healthcare professional undertaking a healthcare related activity. In Year 4 students carry out a research project across all clinical specialties and themes, supervised by a member of staff. In Year 5 the elective is where most students take the opportunity of gaining experience in clinical attachments abroad. The Year 5 SSC provides an opportunity for students to view or shadow a potential career choice.

43. Year 1 students stated that the quality of the Year 1 SSC depended on the supervisor and reported a variable amount of patient contact. F1s reported that the SSCs in Years 1 and 2 had little impact in terms of their learning and the Year 3 SSC had been variable, though useful for learning about working within a multi-disciplinary team.

44. Year 4 students were positive about the choice of SSCs, particularly the option of undertaking either a research based or clinical based SSC in Year 4. Year

5 students stated that SSCs in the earlier years had been less valuable but were positive about the SSC in Year 4. F1s and their educational supervisors were also enthusiastic about the elective SSC in Year 4, as it had offered students the opportunity to select and focus on an area of personal interest and had given supervisors the opportunity to get to know an individual student well.

Delivering the curriculum

Supervisory structures

45. The School has a dense committee framework which is overseen by the MBChB Curriculum Executive. The Executive has overall responsibility for monitoring the spiral curriculum and for making decisions on curriculum change and assessment. It has an overarching governance function and proposals for curriculum or assessment change from module leads and year groups must go through this body. Membership of the Executive includes the directors of all years groups, director of the Medical Teaching Organisation (MTO), director of the Portfolio Committee, directors of the Vertical Themes Committee, SSCs, student affairs and of e-learning. The Executive reviews the learning objectives across the programme annually and monitors assessment.

46. The MTO was originally established to design and implement the new curriculum. While it is an advisory group its membership overlaps with the Curriculum Executive and members are represented on almost all other committees and most have a vertical interest. It functions as an ideas forum and there is evidence that it influences curriculum change. The MTO now coordinates the vertical themes and ensures their integration with the rest of the curriculum

47. We recognise the School has used a collaborative and inclusive approach to curriculum change, but this has led to a complex and dense curriculum structure which is poorly understood by students and staff outside the core academic management team. We recommend that the curriculum is simplified to make it more accessible to staff and students and the supervisory structures need to provide strong leadership in order to achieve this.

48. Clinical Sub-Deans stated the need for a better interface between the School and the NHS at clinical sites, as they had experienced problems with appraisal, time and materials for teaching and some were unsure of how to raise issues effectively with the Medical School. We recommend mechanisms for communicating with clinical teaching staff are reviewed, improvements implemented and monitored for effectiveness to improve the cohesion and coordination between the University and NHS. In addition the School should review the role of the Clinical Sub-Deans along with the resources available to them.

49. The School evaluates F1s performance by obtaining feedback from their educational supervisors and F1s themselves. We encourage this practice as an effective way to engage NHS colleagues and stakeholders.

50. Students we met stated that the Medical Students Council (MSC) was invaluable and were satisfied that through members of this Council they were represented on all committees within the University system.

Teaching and learning

51. We are satisfied that the School is meeting appropriately the requirements set out in *Tomorrow's Doctors* in respect of teaching and learning. Teaching is delivered through a variety of methods such as tutorials, lectures, problem based learning (PBL), case based learning, computer- assisted learning programs (CALs) via EEMeC, clinical attachments in primary and secondary care settings and laboratory practicals.

52. We observed a high standard of teaching at GP surgeries and NHS hospitals throughout the region and noted good facilities, enthusiasm of teaching staff and a positive attitude among students. Students commented favourably about these teaching sessions.

53. We consider PBL sessions to be an important part of the Edinburgh programme, adding significantly to student experience and learning. A PBL review group had been established to develop PBL cases and review the linkages between PBL and the rest of the curriculum, which we support. Students we spoke to were generally positive about PBL but stated that the value of a session depended on the facilitator and that there was some inconsistency.

54. F1s were generally satisfied with the standard of teaching and learning at the School and described placements as well organised. Supervisors had taken their responsibilities seriously and cooperative patients had enhanced their learning experience.

55. We acknowledge the School is working towards developing a more structured approach to the teaching and training and has appointed a Fellow in Medical Education responsible for staff development. Annual teaching events offer teaching staff the chance to review student evaluation and discuss the allocation of clinics and ward rounds. A similar annual event is offered to GP teachers.

56. The School requires all new staff members to complete compulsory training as part of a probationary period but has no way of enforcing the attendance of existing staff. The School offers opportunities for staff training at the University Teaching Learning and Assessment Centre and offers a masters degree in Clinical Education. Teaching staff stated that they would welcome access to shorter training courses, which would be more accessible to them. We recommend the School monitor more closely the availability, appropriateness and uptake of training and ensure a coordinated approach to staff development.

57. In the last GMC report (2000) we encouraged the School to implement a shadowing programme for all students in preparation for practice as an F1. The School now encourages all students to undertake a shadowing period shortly after

the final examinations and is working with the Scottish Foundation School to make this a required component of the Scottish Foundation Programme.

Learning resources and facilities

58. We found satisfactory facilities available at the Clinical Skills Centre at the Chancellor's Building. We noted that when this facility was used for the combined Year 4 obstetrics and gynaecology, haematology, oncology, palliative care, breast disease, renal medicine and urology (HOPB RU) examination it was slightly crowded with several stations housed in one room separated by screens.

59. We considered the purpose built Clinical Assessment Centre at the Western General Hospital to be an excellent facility, with spacious rooms providing an ideal facility for running clinical examinations.

60. We found that students and teachers made effective use of EEMeC, particularly the discussion boards, computer- assisted learning programs and student peer review. Students reported good access across peripheral sites.

61. Some students expressed the view that it was difficult to find information on EEMeC specifically guidance about assessment. The School has plans to address this by upgrading the search engine to enable staff and students to search for relevant documents more effectively.

62. We noted that new arrangements for the distribution of Additional Cost of Teaching (ACT) funding have resulted in a re-distribution of money with the aim of following closely where students are taught. It would be helpful for staff if the School was to ensure that an open and transparent process is in place to clarify how this money is being used in support of teaching and the mechanisms by which it is allocated.

63. The School was aware of the service redesign taking place in the Lothians and the implications of this on the delivery of the curriculum. They reported that during the redesign of cardiology services, the impact on teaching had been taken into consideration at an early stage and while this presented challenges they were taking this forward with students in mind.

64. Subject to funding the School has plans for a Centre for Inter-professional Health Education and Research (CIPHER) at the Little France campus, to house biomedical science teaching, a learning technology service and to allow the School and the deanery to work more closely. We consider this to be a potential area of good practice and would like an update in the GMC annual return in 2009.

Student selection

65. We found a clearly articulated process for student selection which was followed by the School.

66. The School uses the UK Clinical Aptitude Test (UKCAT) and employs an objective points scoring system in which academic and non-academic criteria are awarded equal weighting. Interviews are used routinely for mature students and exceptionally for school leavers who have inconsistencies in their application forms.

67. The School has developed a multiple mini interview format where applicants complete a structured, rotational interview of three stations with two interviewers at each, who mark independently. We suggest the School review this system and consider using six stations with an interviewer at each to obtain six individual opinions and covering six different areas, rather than relying on three.

68. We questioned the School about its mental health policy that requires all applicants to have a two-year clean bill of health prior to application. To date very few applicants had been refused entry on this basis and the policy had not been challenged.

69. The School has 24 selectors who work on a three-year rotation. The School has made efforts to ensure its selectors come from a variety of ethnic backgrounds with a good gender balance. There are selectors from a range of specialities, both clinicians and scientists, to ensure a broad range of views.

70. Each cycle includes an element of selector training and we noted in the attendance records that all but one selector had attended training regularly. We reviewed the selector guidance and considered it comprehensive; providing background information and detailed scoring guidelines.

71. The School is actively participating in widening participation through Pathways and Pathways Plus schemes. The School is in contact with 46 state schools in the Lothians to encourage students to apply to medical school. Special tutorials are provided by Pathways and potential applicants are shown around the School. The School lowers the minimum standard slightly for applicants entering through the Pathways and Pathways Plus schemes although the standard remains high. We noted a high percentage of students (10%) of the 2007/08 intake had been recruited through these schemes.

72. We noted the low intake of certain black and minority ethnic groups in the MBChB programme. The School explained that they have few applications from these minority groups.

Student support, guidance and feedback

73. We concluded that student support, guidance and feedback for the School's MBChB programme meets the requirements of *Tomorrow's Doctors* with some areas for improvement.

74. We are satisfied that the School clearly sign-posts the use of the Director of Studies (DoS) as a support system for students. However after speaking to students in all year groups there was clear variability in the amount of contact students had with their DoS. Most students reported having little contact with their DoS and would

approach the Director of Student Affairs or a Head of Year with any issues. Although most students were satisfied with the avenues of support available to them we noted that the DoS system is not functioning as intended. We recognise that the School is currently reviewing this system, which we support and look forward to receiving their report and an update on action taken.

75. We noted good student support centrally which students praised highly but said that it relied heavily on the Director of Student Affairs.

76. After speaking to students we were concerned that they were unaware of who to approach for support on peripheral attachments.

77. Interviews with Heads of Years indicated that student evaluation and continuous improvement remains specific to each year and is dependent on good communication and an effective handover between the Heads of Year. Heads of Year stated that they are fully aware of underperforming students within their year group and are able to resolve any issues quickly.

78. Whistle blowing is included in the 'Ethical Code for Students of Medicine' which all students sign in Year 1. Students are introduced to constructive and critical peer appraisal through PBL sessions and SSCs and are given further guidance in the 'Guidelines for Medical Students on Clinical Attachments' provided in Year 3. Year 1 students we spoke to were aware of the policy but students in later years were not as clear about the correct procedure. We suggest that the School raise awareness of the procedure for students to follow in cases of whistle blowing.

79. We commend the comprehensive programme of careers management support available for students, which included the provision of a Careers Advisor at the University Careers Service and a comprehensive careers fair in Year 4, which includes some disciplines not traditionally covered during undergraduate clinical placements. We considered the supporting handbook, outlining the main medical disciplines, to be an excellent guide. The School also provides Year 5 students with the opportunity to shadow at a hospital where they are applying for a post. This is often a partial match although attempts have been made to match students as closely as possible.

80. Students stated that there was ample opportunity to evaluate the programme after modules and at the end of rotations via EEMeC. Students we met felt that evaluating modules was mandatory as they receive regular reminders on screen until the online evaluation has been completed. However they were not sure what action had been taken as a result of their responses. The School was able to provide a number of examples of where students and teachers had directly influenced curriculum development, such as changes to the locomotor module in Year 3 and additional PBL sessions in Years 1 and 2. We encourage the School to sign post these changes more clearly so that students are made aware of their influence over the curriculum.

81. Students in Years 1 and 2 commented positively about the amount of formative feedback they received after assessments. Students had been given the

opportunity to review their score sheets, run through the exam questions and were provided with model answers.

82. Students in later years were less favourable about the amount of feedback after assessments. The School acknowledged that the national student survey suggested feedback after assessments could be improved and the Curriculum Executive has been looking at improving feedback after multiple choice question papers, an area where students had showed most concern.

Assessing student performance and competence

Assessment principles and procedures

83. The School has an overall assessment strategy which we support, however it does not appear to be fully implemented across the programme. Although we were told that the Curriculum Executive has ultimate responsibility for all assessment procedures we found evidence that the assessment strategy was not being implemented consistently throughout the programme. For example Year 4 obstetrics and gynaecology and HOPB RU assessments stand alone and are not alongside other Year 4 subjects. The School explained that some module leads had made a case that their subject requires a specific type of assessment and could not be combined with other modules. Therefore the School decided against an integrated end of Year 4 Objective Structured Clinical Examination (OSCE) although this continues to be under discussion. We encourage the School to work towards a fully integrated assessment which reflects its aspiration of an integrated and spiral curriculum.

84. We found there to be a high number and frequency of assessments and noted that responsibility for assessment appears to rest at year or module level. We require the School to ensure there is overarching leadership for assessment. This would provide coordination throughout the programme, improve consistency, decide on competing interests and introduce a joined up quality management process. We acknowledge that the School has identified that the structure of the curriculum has led to a complex assessment system and is looking at ways of simplifying and rationalising the assessments, which we support.

85. The School has developed an assessment engine to analyse assessment data and to hold sensitive data about students securely. The School was looking at how the engine could be developed to provide a more detailed and reliable analysis of data in future.

86. The School recognises there is more work to do on blueprinting and we encourage this.

87. Structured Clinical Examination Evaluation (SCEE) forms and the mini-CEX had been introduced by the School, to provide students with more individual feedback on observed clinical tasks during attachments. End of attachment report forms provide students with a summary of their assessment marks and individual

feedback including an assessment of their Personal Professional Development. However students expressed the view that grades awarded at end of placement evaluations were sometimes arbitrary, given by clinicians they had rarely met. Clinical tutors we met were also unaware of supporting guidelines for using this tool. In-course assessment in Year 5 counts for 40% of the final mark and an inconsistency of marking could advantage or disadvantage a student and influence their progression. The School recognises that achieving consistent workplace based assessment remains a challenge which they attribute to time pressure on clinical staff and rapid change within the NHS. The School continues with its efforts to enhance and develop this aspect of the curriculum, which we strongly encourage.

88. In-course assessment varies in content and weighting from module to module in Year 5. We recommend the School introduce tighter control over blueprinting, content and style to ensure that final year in-course assessments are more consistent.

89. In 2000 we asked the School to address the reliance on the viva in the Year 5 final examinations, which was proposed as 50% of the final mark. The final examinations now consist of three components: the Clinical Practice Examination (CPE), the Safety in Practice and Prescribing online examination (SIPP) and the portfolio and portfolio viva. Each component counts for 20% of the final mark with in-course assessment making up the other 40%. The portfolio viva counts for 60% of the total Portfolio mark with the other 40% allocated to the two overview essays written in Years 4 and 5.

90. In the Year 4 examinations we noted that written stations can compensate for performance in the clinical OSCE. We advise the School to revisit the OSCE to ensure it is appropriately focused on clinical skills and reconsider the compensation policy.

91. We commend the School's efforts to standardise the content of the portfolio viva with the use of the portfolio vertical themes question bank and a comprehensive programme of examiner training to ensure consistency of judgements.

92. We highlighted the Safety in Practice and Prescribing (SIPP) online examination as good practice. It specifically tests students' knowledge of common acute medical scenarios with a focus on patient safety. We found the scenarios to be precisely what an F1 doctor would need to know and were enhanced by the integration of high quality images such as ECGs and X-rays. F1s we met described the examination as clever and relevant.

93. The final CPE was comprehensive, well-run and well organised. There were a good range of real patients with real physical signs for the short cases and although the patients had a variety of symptoms the School had achieved a good level of equivalence.

94. We saw positive evidence that prescribing is tested comprehensively during the final examinations via the CPE and the SIPP examination. We commend the School on its commitment to actively developing ways to improve the assessment of students prescribing skills.

95. Quarantining for all assessments we observed was appropriate.

96. We noted that examiner numbers, examiner and assessor training were satisfactory. The School is making good effort to ensure that all examiners used during assessments are fully trained. We noted the School's achievement in recruiting a large number of enthusiastic examiners at the CPE, covering a range of specialties.

97. A number of external examiners were present throughout the final examinations and the School sought their opinion on how the students and the examinations had performed.

98. Some Year 3 students stated that the portfolio had forced them to take time away from hospital wards at a critical time and that a disproportionate amount of time was spent on it for the marks received. However some Year 5 students found the portfolio useful in later years of the programme as they were able to reflect on cases they had done in earlier years. We consider the portfolio and portfolio viva important in testing students understanding of the vertical themes and their relevance with respect to their learning and for application to future practice.

99. Some students continue to struggle to understand the assessment processes, which was highlighted in the last GMC report (2000). We noted that the 'Introduction to the Principles for Practice Years 1 and 2: Assessment' student handbook provides clear guidelines, including how actual marks relate to pass marks. Most Year 1 students interviewed knew the pass mark of 60% and were aware of the marking system. However Year 4 students we met felt assessments were difficult to understand within the programme structure as a whole.

100. The School invites students who marginally fail any single component of the final examinations the opportunity to sit an additional test shortly after the initial examination. Students are assessed by a different set of examiners and receive the average mark of the two attempts. This is to ensure the first assessment is reliable and that anxiety has not adversely affected the student's performance. The additional test follows the same format as the initial assessment.

Student progress

101. Poor professional attitudes and behaviour are highlighted through a variety of sources. In Years 1 and 2 peer review via EEMeC encourages students to attend and fully participate in small group teaching sessions such as PBL. In Years 3 to 5 professional development is recorded by clinical tutors via end of attachment report forms (of which SCEE forms are a component). As students have highlighted inadequacies with this system (see paragraph 87) we question the value of these forms to pick up attendance or poor professional attitudes.

102. We questioned the fact that six out of seven students who failed Year 1 were allowed to repeat the year. The School emphasised that 'Special Circumstances' are being reviewed continuously and a rigorous process is in place to examine this evidence. All students who go before the Appeals Committee have to provide and

explanation and evidence of legitimate circumstances. We noted the student support handbook detailed what might happen in relation to poor performance in assessments and the special circumstances that would be considered.

103. Students have the option of exiting the programme with a BSc after successful completion of Year 3. Students considering leaving medicine are referred to the University Careers Service who provide advice and help with CVs.

104. Students who fail their final examinations can resit the following November with additional experience and remediation. Educational supervisors stated these examinations do not fit in with the Foundation Programme and students who are successful in the November resit are unable to apply for F1 posts until the following August. The School may wish to consider that students who fail more than marginally should be encouraged to repeat the whole of Year 5 to give them more time to reduce deficiencies in competency and to keep their skills and knowledge up to date before they proceed to the F1.

Student health and conduct

105. The team is satisfied that the School's current arrangements for student health and conduct satisfy the requirements of *Tomorrow's Doctors*.

106. After reviewing the minutes from a Fitness to Practise (FtP) Committee meeting we considered the School has robust and fair FtP procedures consistent with GMC guidance. We welcome the development of a Pan-University FtP appeals committee to ensure students are not only judged on academic merit when considering appeals.

107. The Professional Development Committee (PDC) has a primarily pastoral role and few students go on to be referred to the FtP Committee. We commend the School's separation of FtP from student welfare with the use of the PDC to support students in difficulty and to act in a pastoral capacity to prevent students being referred to the FtP Committee unnecessarily.

Acknowledgement

108. The GMC and the team would like to thank Edinburgh Medical School and all those they met during the visits for their cooperation and willingness to share their learning and experiences.



JSS/CEL

20 November 2008

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Dear Professor Rubin,

QABME Visit to Edinburgh Medical School 2007/8

The University of Edinburgh Medical School acknowledges receipt of the report of the GMC assessment visits to the Medical School which took place in the academic year 2007/8 as part of the Quality Assurance of Basic Medical Education (QABME) Programme. The School welcomes the findings that our MBChB programme currently meets the requirements of *Tomorrow's Doctors* in accordance with Section 5(3) of the Medical Act 1983; that our learning outcomes map clearly to *Tomorrow's Doctors*; and that our curriculum is successfully aligned to Foundation Year 1.

The School welcomes the many positive comments in the report and, in particular, the six areas of innovation and good practice selected for specific commendation. These include our on-line learning resources; success in widening access to medical school; provision of careers guidance; the Portfolio viva examination; the on-line *Safety in Practice and Prescribing* examination; and our Fitness to Practise procedures.

We note the two requirements and five recommendations stipulated in the report. We have attached separately an action plan and timetable according to which the School will address these issues. The requirements involve firstly, a review of our curriculum structure with a view to simplifying it and making it more easily understood by students and staff (Paragraph 12a) and secondly, the need to ensure that an overarching assessment group is empowered to coordinate and standardise assessment through the programme (Paragraph 12b). The report acknowledges that the School had already recognised both of these as issues requiring further development and had initiated reviews in these areas. However, the insights of the visiting group, triangulated against the opinions gathered from students and staff, provide valuable further justification and context for our work on these issues. In order to ensure that these important changes are made in a measured way, we anticipate that the relevant alterations to the overall programme structure and content will be introduced for the 2010-11 academic year, as detailed in the action plan.

As the report suggests, we regard Paragraph 13a, concerning curriculum vertical themes, as closely related to Requirement 12a on simplification of the curriculum structure; work on this is in progress. Details of actions to ensure the effectiveness of current supervisory structures (Paragraph 13b) are included in the action plan, and include regular reporting on educational matters to the College Strategy Group, the principal planning and resources body for the College of Medicine and Veterinary Medicine. Action to improve communication with NHS teachers and review the role of Clinical Sub-Deans (Paragraph 13c) is being initiated with our NHS partners. A more coordinated programme of staff development (Paragraph 13d) is currently being documented. As the report acknowledges, our Director of Studies system is currently under active review at both a University level and within the Medical School (Paragraph 13e). This will be concluded during the current academic year.

To assist us in our overall response to the requirements and recommendations in the report over the coming year, we have been fortunate to obtain the assistance of Dr Frederic Pender (formerly with Queen Margaret University, Edinburgh and the University of Chester) and Professor Stuart Macpherson (until recently the Postgraduate Dean for Medicine in Southeast Scotland). They have each been asked to investigate and report to the Curriculum, Assessment and Feedback Executive on specific aspects of the report - Dr Pender to provide a detailed external perspective on our curriculum structure and presentation, and Professor Macpherson to report on assessment.

Finally, we would like to acknowledge and welcome a number of other comments and statements in the main body of the report. These include the statement that basic sciences, including anatomy, are adequately covered within the curriculum (Paragraphs 18 and 19); that a coordinated programme of teaching and learning in complementary medicine is being delivered (Paragraph 20); that we provide a good level of clinical exposure in the early years of the programme (Paragraph 23); that there is thorough teaching and assessment of communication skills (Paragraph 25) and of general skills, such as time management and self-reflection (Paragraph 29); very good teaching of ethics (Paragraph 32) and good coverage of public health in the curriculum (Paragraph 33); that students in all years are able to identify their learning outcomes (Paragraph 37); a positive student experience of peer assisted learning (Paragraph 27); good student representation on committees (Paragraph 50); an overall high standard of teaching in GP surgeries and NHS hospitals throughout the region, with good facilities, enthusiastic teaching staff and a positive attitude among students (Paragraph 52); the new Clinical Assessment Centre (Paragraph 59); our clearly articulated process for student selection (Paragraph 65); good central student support (Paragraph 75); and comprehensive testing of prescribing skills (Paragraph 94).

The Medical School wishes to thank the GMC and its QABME staff, and the members of the visiting team, for their work in undertaking this review and generating the report. We look forward to working with the GMC in relation to the findings in the coming academic year.

Yours sincerely,



Professor Sir John Savill
Vice-Principal and Head of College



Professor Allan Cumming
Director of UG Learning and Teaching