

# **Quality Assurance of Basic Medical Education**

## **Report on University of Sheffield, School of Medicine**

**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 2006/07 quality assurance report to the GMC Education Committee on the established medical school at Sheffield.
5. Sheffield has over 1,200 students undertaking an integrated five year MBChB Medical Degree.

### **The QABME team**

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

Professor Reg Jordan (Team leader)  
Professor Trudie Roberts (Deputy Team Leader)  
Professor John Ashton  
Professor Richard Hays  
Ms Susan Hobbs  
Dr Martin Rowan Robinson  
Ms Suzanne Shale  
Dr Rafik Tajjbee  
Dr Niten Vig

7. Rodney Dennis (GMC Education Quality Officer) supported the QABME team.

### **Our programme of visits in 2006/07**

8. The team conducted seven quality assurance visits on: 7 December 2006; 20 March; 24 April; 15 May; 24 May; 25 May; and 21 June 2007.
9. The findings of the team have been reached by reviewing evidence submitted by the School and undertaking the following activities:
  - a. Meetings with a variety of members of the School
  - b. Observation of teaching sessions in GP practices, two of the associated district general hospitals and the Royal Hallamshire Hospital, Sheffield Teaching Hospitals Foundation Trust
  - c. Observation of the examination of clinical competence
  - d. Analysis of exam papers
  - e. Observation of the Final Examination Board
  - f. Site assessment to various NHS Trusts
  - g. Site assessments to various GP practices
  - h. Discussions with students

- i. Discussions with teachers, including general practitioners and clinical consultants
- j. Discussions with Foundation Year 1 students and their educational supervisors.

## The report

### Summary of our key findings

10. Subject to the requirement regarding Student Selected Components in paragraph 14, the School's MBChB programme meets the requirements of *Tomorrow's Doctors*.
11. The School has made significant progress since its last review, particularly in the following areas:
  - a. Implementing the new curriculum in 2003.
  - b. Use of the 92 core clinical problems to integrate basic science and clinical learning.
  - c. Modernising assessment practices.
  - d. Improving the consistency and quality of student support.
12. We found that the School is currently delivering a curriculum that prepares its graduates for Foundation Year 1. The evidence collected suggests that the new curriculum will continue to do so.
13. Although we have identified a requirement and suggested some areas requiring additional consideration by the School later in this report, these should be read in the context of our overall findings as recorded above.

### Requirements

14. The School is required to review the scope and objectives for Student Selected Components (SSCs) and in light of this review to revise the framework to increase the breadth and depth of genuine choice in both the form and content of the SSCs so that the SSCs meet the requirements of *Tomorrow's Doctors*.
15. The School must respond to the Education Committee by 31 December 2007 on how it plans to meet this requirement.

### Recommendations

16. We have identified the following areas for the School to address:
  - a. The School should continue to develop its curriculum so as to reflect changing patterns of health and healthcare delivery (paragraph 24).
  - b. The university and its NHS partners should develop a learning resources strategy to ensure the adequacy of facilities necessary to deliver the School's curriculum. A proactive estate strategy has addressed the need to upgrade large scale teaching facilities but now needs to consider the clinical skills facilities, including clinical competence examination venues, and

small teaching facilities, all of which are in urgent need of development (paragraph 37).

c. While recognising the progress made on assessment, we recommend that the School reviews; blueprinting, standard setting and assessment tool selection in order to improve the measurement of the School's curriculum outcomes of inter-personnel skills, clinical skills, professional behaviours, practical skills and generic graduate skills (paragraphs 45 and 48).

#### *Areas of innovation and good practice*

17. We commend the School on the following areas of good practice:

a. The way in which the School uses the 92 core clinical problems to integrate basic sciences and clinical learning (paragraph 20).

b. The use of Minerva as the electronic scaffolding for the dissemination and management of the curriculum (paragraph 39).

c. Inclusion of students on interview panels (paragraph 40).

d. The framework of student support including, mentoring and final year interviews (paragraphs 42 and 43).

e. The widening participation initiatives including Sheffield Outreach and Access to Medicine Scheme (paragraph 41).

f. The annual Patient Safety Day, which promotes patient safety through inter-professional team working (paragraph 35).

g. The involvement of patients as educators and participants in curriculum development through initiatives such as the Patient Council (paragraph 36).

h. The approach to measuring the reliability of assessments and the technical report for the final clinical competence examination, which is of a high standard (paragraph 50).

## Curricular outcomes

18. The overarching aim of the School's curriculum is to facilitate students developing a high level of clinical competence, equipping them to enter their Foundation Year 1 training programme.

19. The Curriculum is designed to cover 92 core clinical problems. It has an integrated approach to basic sciences, clinical skills and professional development and focuses on achieving high levels of clinical competency. We were satisfied that all outcomes in *Tomorrow's Doctors* were covered across the five year curriculum within the core clinical problems framework.

## Curriculum content, structure and delivery

### Content

20. The School's curriculum is integrated horizontally throughout each phase and vertically throughout the course. Its core teaching is based on 92 core clinical problems and the overall learning outcomes are defined in the context of these problems. The School demonstrated the spirality in the themes of hypertension and prescribing. In discussions with us, students demonstrated understanding of the curriculum framework and the approach to integration.

### The scientific basis of practice

21. Basic science teaching is fully integrated into the curriculum. This is an area that the School will need to keep under review to ensure that the weight of factual knowledge does not become over burdensome.

### *Clinical and practical skills*

22. The curriculum emphasises clinical and practical skills. There is early exposure to history taking through the Integrated Learning Activities in Years 1 and 2, and there is a comprehensive communication skills programme.

### *The health of the public*

23. The School aims to fully integrate public health teaching with other clinical components such as GP placements. Public health is taught as a vertical theme within the School's curriculum occurring in all phases from 1a to 3b (Years 1 – 4). Lateral integration then occurs in phases 3a and 3b (Years 3 and 4). The students interviewed at their GP placements demonstrated awareness of the communities in which GP practices are located and enjoyed learning about the public health context in their placements. However, public health learning outcomes are not as fully represented in the assessment framework (forming between 0 – 5% for each phase except phase 1a, in which it constitutes approximately 15%).

24. While the School has improved its integration of public health teaching with other curricular components such as GP placements, the School's view of public health could be broadened to take in more contemporary health issues. Specifically, the School needs to expand its view of public health to familiarise students with the range of determinants of public health and the partnerships that are needed between doctors and other health professionals to address public health issues effectively.

## Structure

### *Student selected components*

25. The School has made significant progress in increasing the student selected components content of the curriculum (SSCs). However, we require the School to continue this progress with a review of the range, depth and purpose of SSCs offered. Currently, the SSCs offered tend to focus on core content with a format that is heavily weighted towards case based presentations. Out of the 19 SSC components we noted that 10 of the SSCs were a form of case-based discussion, for which the student may have a limited choice of patients on which to base their clinical review and reflection.

26. We commend the Research Attachment SSC, which gives students a 6-week introduction to research before they reach the stage of deciding on intercalation. We also commend the clinical placement selection SSC in Phase 4 and the 6 week optional self-designed SSC in phase 3a (Year 3), 73% of students decided to self-design, which encourages students to reflect on their learning needs.

## Delivering the curriculum

### *Supervisory structures*

27. We are satisfied that the School is meeting the necessary requirements set out in *Tomorrow's Doctors* in terms of supervisory structures. The School has supervisory structures with clear lines of authority and responsibility. Of particular note is that the Curriculum Committee, which has overall responsibility for governing and developing the curriculum, communicates well across the various supporting committees and groups such as the phase specific committees. Students are represented on all the appropriate committees.

28. The School is commended on establishing the Evaluation Committee, which is tasked with developing a co-ordinated strategy to evaluate and respond to student feedback.

29. The quality assurance and enhancement procedures in place demonstrate that the School has a clear and coherent governance structure. There are appropriate quality management systems that have clear terms of reference and communication. There are also transparent quality management links between the School, the university, and the NHS. An example of this is the regular, scheduled debriefing with NHS hospital staff covering student feedback on their clinical

placements. There are also regular programmed meetings between the director of teaching and associate directors of teaching in the hospitals.

30. The GP practices were found to be well integrated with the School's management and quality assurance functions. There are robust and appropriate communication and feedback mechanisms in place between the School and the Practices.

### *Teaching and learning*

31. The School has introduced Integrated Learning Activities which are very well received by the students. We commended the staff on their delivery of these activities within the facilities available and we encourage the School to continue to develop this well received aspect of the course.

32. The School delivers a number of training courses including a GP tutor course, which explains the requirements of the School's curriculum. We considered that the Promoting Excellence in Learning and Teaching programme, a series of road shows delivered by central medical school staff to regional sites, is an effective way of sharing good practice in delivering teaching and the curriculum with hospital and community clinicians. However, we would encourage the School to monitor more closely the uptake of training and ensure that all staff with substantial teaching responsibilities participate.

33. Students have the opportunity to increase their knowledge of GP and Primary Health Care within local communities on community attachments. Students also have the opportunity of working with different health professionals such as midwives, pharmacists, and health visitors, particularly in the later stages of the course.

34. While the School makes considerable effort to ensure balance in placements within phases there is no co-ordination of placement allocation across the course as a whole.

35. The School provides opportunities for inter-professional learning early in the curriculum with a Patient Safety Day aimed at raising awareness of patient safety issues and developing inter-professional working relationships.

36. The School is developing its Patients as Educators programme to provide trained patient assistance with exams, teaching sessions, and clinical skills. For example, the School reported that a group of patients have been trained to understand how an abdominal examination should be carried out and what it should feel like as a patient. These patients are then able to provide feedback on the performance of students carrying out abdominal examinations. The School has recruited 500 current and ex-patients by word of mouth. It has indicated that it would like to develop closer links with communities in Sheffield, such as the Somali community, who are currently under-represented in the Patients as Educators programme.

### *Learning resources and facilities*

37. We concluded that School staff are making excellent use of limited resources available. For a school of its size, age, and history its facilities are poor in places. Lecture theatres have been refurbished, but the clinical skills facilities and small group teaching spaces are constraining the adoption of more student centred approaches to learning. Students reported that they enjoyed small group teaching, yet we noted that the facilities to teach small groups in tutorial rooms were limited.

38. We noted that facilities in the Phase 1a Multi-Station Practical examination appeared overcrowded, with students having limited space in which to complete some of the stations.

39. Since its development and integration into the curriculum, the School's online learning resource, Minerva, is well utilised by all students and is well regarded by Years 1 and 2 students.

### *Student selection*

40. The School interviews those students who are believed to be both academically and personally suitable for the curriculum. The School is using the system of UKCAT (UK Clinical Aptitude Test) as part of its admissions procedures aiding decisions particularly with respect to borderline / reserve list candidates. The School includes Year 4 and 5 students on its interviewing panels, which gives a different perspective on each student's application and suitability for the School's MBChB.

41. The School's main widening participation initiative is the Sheffield Outreach and Access to Medicine Scheme, which involves 82 secondary schools. The scheme raises awareness of medical careers and creates opportunities for students of varying socio-economic backgrounds to participate in activities introducing them to a career in medicine. All students who have completed the scheme are guaranteed an admissions interview and a specific quota of admissions is ring-fenced for students who have participated in the scheme.

### *Student support, guidance and feedback*

42. The School has implemented a multi-level support system focusing on supporting students through the different phases of their course. Year 1 students are assigned Year 4 mentors to supervise their development. The support and guidance mechanisms are clearly posted on Minerva, the School's online learning environment, which is viewed as an integral part of the teaching by Years 1 and 2 students.

43. We found the School's final year interview to be an area of good practice. It checks that students have jobs to go to following graduation, their finances are in order, their Criminal Records Bureau status is checked and their clinical experience in their final year is targeted to their needs.

## Assessing student performance and competence

### The principles of assessment

44. The School's overall philosophy towards assessment of students is the same as that which underpins the curriculum; it is designed to test progressively the extent to which students are achieving the competences required of an F1 doctor. The assessment framework has the potential to allow students to demonstrate the breadth and depth of their knowledge based on the School's curriculum.

45. We observed that the School are using a mix of assessment methods, applying modern methodology and have standard-setting and bench-marking processes in place. The School uses well tried and tested assessment tools with a high level of reliability for their summative assessments, however, the School is encouraged to develop the use of their more innovative tools.

### Assessment procedures

46. The School uses formative and summative assessments within the assessment framework although on-line formative assessment using Minerva occurs only in phase 1.

47. The final examinations were fair and of a standard comparable with final year objective structured clinical examinations nationally. Overall, however, given the School's focus on high levels of clinical competence the School is advised to introduce more challenging stations to enable students to better demonstrate their preparedness for the Foundation Year 1 training programme.

48. The assessment blueprinting should be reviewed to ensure that the breadth of the curriculum is assessed appropriately. In the final OSCE, there were two occurrences of a disparity between the purpose of a station as defined in the blueprinting and an examiner's understanding of that purpose.

49. The School has sound strategy and approach to the use of external examiners.

50. The School's technical reporting of assessment is satisfactory. Attention should be given to technical issues such as the inclusion of static stations in OSCEs and the standard setting process for unobserved stations.

51. The School demonstrated at the exam board for the final assessment that it had appropriate systems in place to determine the pass mark and appropriate quality assurance mechanisms.

## Appraisal

52. The School has sufficient appraisal systems in place for students and tutors in relation to GP and clinical attachments.

## Student progress

53. The School provided evidence of robust and fair procedures to monitor and respond to student progress.

## Student health and conduct

54. The School has well established regulations regarding the fitness to practise (FtP) of its students. The School's focus regarding the analysis of FtP has changed from specific FtP incidents to an emphasis on looking at certain patterns of behaviour over a period of time.

55. The School does however rely on the whistle-blowing policies of the University and the associated hospitals. We recommend that the School consider creating a School specific policy.

## Acknowledgement

56. We would like to thank Sheffield Medical School and all those they met during the visits for their co-operation and willingness to share their learning and experiences.



The  
University  
Of  
Sheffield.

School  
Of  
Medicine  
& Biomedical Sciences.

## **Response to the GMC Report**

### **Requirement**

*The School is required to review the scope and objectives for Students Selected Components (SSCs) and in light of this review to revise the framework to increase the breadth and depth of genuine choice in both the form and content of the SSCs so that the SSCs meet the requirements of Tomorrows Doctors.*

In January 2008 the School will establish a review group to consider the full SSC programme. The revised SSC programme will be confirmed following the publication of the next version of *Tomorrows Doctors* and will be implemented shortly afterwards.

However, in response to comments by the QABME visitors, immediate action has been taken to remove the evidence-based patient cases in Phase 3a, Child Health, Women's Health and in Phase 3b, Acute and Critical Care and General Care from the SSC portfolio. In addition, the Intensive Clinical Experience (ICE) in Phase 1a has been removed from the SSC programme.

### **Recommendations**

*a) The School should continue to develop its curriculum so as to reflect changing patterns of healthcare and healthcare delivery.*

The following steps have been taken:

- a) A senior member of the academic staff in Public Health has joined the Curriculum Committee to enhance the relationship between Public Health and the rest of the curriculum, including assessment. Developments to the curriculum in this respect will be implemented from 2008 onwards.
- b) This individual chairs the group within Public Health, and of which the School's Director of Teaching is a member, that will further develop the School's relationships with PCTs and other groups relevant to the provision of public health learning opportunities.
- c) The already established Personal and Professional Development Programme will from 2008 include additional teaching in Phases 2 and 4 on healthcare delivery in the NHS.

- b) *The university and its NHS partners should develop a learning resources strategy to ensure the adequacy of facilities necessary to deliver the School's curriculum. A proactive estate strategy has addressed the need to upgrade large scale teaching facilities but now needs to consider the clinical skills facilities, including clinical competence examination venue, and small teaching facilities, all of which are in urgent need of development*

Discussions have already occurred, and will continue regularly, with the Chief Executive of the Sheffield Teaching Hospital Trust in relation to the provision of resources for teaching with particular focus on clinical skills teaching and the assessment of students. It is anticipated that developments to further support the clinical skills learning and teaching will be implemented during 2008.

- c) *While recognising the progress made on assessment, we recommend that the School reviews: blueprinting, standard setting and assessment tool selection in order to improve the measurement of the School's curriculum outcomes (interpersonal skills, clinical skills, professional behaviours, practical skills and generic graduate skills)*

An assessment strategy sub-group has been established to consider summative knowledge based examinations, OSCEs and the assessment of professional behaviours and interpersonal skills.

The group meets bi-weekly and has made some preliminary changes to the Phase 4 examination in May 2008.

A full assessment review which will be completed during 2008 and the results will be implemented thereafter across all Phases of the Programme.

08.12.07