Promoting higher quality

The Quality Assurance Agency
for Higher Education

Subject Review Report

May 2000 Q328/2000

University of Oxford

Anatomy and Physiology
Medicine

Reviewing the Quality of Education

The Quality Assurance Agency for Higher Education (QAA) was established in 1997. It has responsibility for assessing the quality of higher education (HE) in England and Northern Ireland from 1 October 1997 under the terms of a contract with the Higher Education Funding Council for England (HEFCE).

The purposes of subject review are: to ensure that the public funding provided is supporting education of an acceptable quality, to provide public information on that education through the publication of reports such as this one, and to provide information and insights to encourage improvements in education.

The main features of the subject review method are:

Review against Aims and Objectives

The HE sector in England and Northern Ireland is diverse. The HEFCE funds education in over 140 institutions of HE and 75 further education (FE) colleges. These institutions vary greatly in size, subject provision, history and statement of purpose. Each has autonomy to determine its institutional mission, and its specific aims and objectives at subject level.

Subject review is carried out in relation to the subject aims and objectives set by each provider. It measures the extent to which each subject provider is successful in achieving its aims and objectives.

Readers should be cautious in making comparisons of subject providers solely on the basis of subject review outcomes. Comparisons between providers with substantively different aims and objectives would have little validity.

Review of the Student Learning Experience and Student Achievement

Subject review examines the wide range of influences that shape the learning experiences and achievements of students. It covers the full breadth of teaching and learning activities, including: direct observation of classroom/seminar/workshop/ laboratory situations, the methods of reviewing students' work, students' work and achievements, the curriculum, staff and staff development, the application of resources (library, information technology, equipment), and student support and guidance. This range of activities is captured within a core set of six aspects of provision, each of which is graded on a four-point scale (1 to 4), in ascending order of merit.

The aspects of provision are:

- Curriculum Design, Content and Organisation
- Teaching, Learning and Assessment
- Student Progression and Achievement
- Student Support and Guidance
- Learning Resources
- Quality Management and Enhancement.

Peer Review

Reviewers are academic and professional peers in the subject. Most are members of the academic staff of UK HE institutions. Others are drawn from industry, commerce, private practice and the professions.

Combination of Internal and External Processes

The review method has two main processes:

- Preparation by the subject provider of a self-assessment in the subject, based on the provider's own aims and objectives, and set out in the structure provided by the core set of aspects of provision.
- A three-day review visit carried out by a team of reviewers. The review team grades each of the aspects of provision to make a graded profile of the provision, and derives from that profile an overall judgement. Provided that each aspect is graded 2 or better, the quality of the education is approved.

Published Reports

In addition to individual review reports, the QAA will publish subject overview reports at the conclusion of reviews in a subject. The subject overview reports are distributed widely to schools and FE colleges, public libraries and careers services. Both the review reports and the subject overview reports are available in hard copy and are also on the world-wide web (see back cover for details).

Introduction

1. This Report presents the findings of a review in May 2000 of the quality of education in anatomy and physiology and medicine provided by the University of Oxford.

2. The University came into existence over 800 years ago as a self-governing community of scholars. Although collegiate, the University operates centrally in prescribing the syllabi of courses, conducting examinations and awarding degrees. There are 36 independent self-governing colleges, a further three not yet self-governing under their own statutes and five permanent private halls. Currently, the University has just over 17,750 full-time and 3,830 part-time students. Courses in physiology are delivered in the Faculty of Physiological Sciences located near the centre of the city. The Faculty of Clinical Medicine is in the John Radcliffe Hospital some four miles east of the city centre.

3. There are currently 47 students reading the undergraduate course in Physiological Sciences and 617 studying the undergraduate, and four the postgraduate, courses in medicine. There are approximately 170 full-time and 60 part-time academic staff supporting the courses. The clinical courses draw on clinical placements from the Oxford teaching hospitals, a number of Health Service Trusts, general practices and community settings. Associated with the Faculties of Physiological Sciences and Clinical Medicine are some 240 and 700 research staff respectively. In the most recent Research Assessment Exercise, three of the subject areas contributing to the provision reviewed were awarded a Five-star grading and four a grade of Five.

4. The following provision forms the basis of the review:

- First BM
- BA Physiological Sciences
- BM,BCh
- BA Psychology, Philosophy and Physiology (BA PPP) (Physiological Sciences components only)
- MSc Diagnostic Imaging.

5. The statistical data in this Introduction are provided by the institution itself. The aims and objectives are presented overleaf. These also are provided by the institution.

The Aims and Objectives for Anatomy and Physiology and Medicine

Aims

The University of Oxford aims to achieve and sustain a high standard in its teaching and research, maintaining and developing its historical position as a world-class university.

The Medical School aims:

- to provide a medical course for students selected on the basis of intellectual ability and vocational aptitude, regardless of cultural and ethnic background, within the stimulating educational environment of a collegiate university;
- to provide a medical course that is suited to students with a strong interest in, and aptitude for, biomedical science, and that includes an honours degree for all students;
- to produce doctors who have a scientific approach and an ability to relate sympathetically to patients and their families and friends;
- to provide students with a sound basis for lifelong learning, by encouraging critical thinking and scientific enquiry;
- to further the development of students interested in academic medicine or medical science, by providing an environment in which basic and clinical research are actively pursued at the highest level.

Physiological Sciences for non-medical students aims:

- to offer an intellectually demanding course in a broad range of topics in animal (particularly mammalian) physiology, providing a rigorous, non-vocational education for those wishing for careers in the life sciences or for other career options.

MSc in Diagnostic Imaging aims:

- within the context of a chosen option, to provide candidates with a broad knowledge of modern imaging techniques.

Objectives

Medicine: First BM and Medical Sociology (years one and two)

Students should:

- be able to describe and explain in outline the fundamentals of pre-clinical science, including an awareness of issues of major clinical significance (assessed by the ability to write accurate and pertinent short notes);
- be able to apply basic principles to problems based on data from experiments or simple clinical cases;
- be able to describe and explain some areas of biomedical science extending beyond those fundamental to pre-clinical training, with appropriate reference to the major supporting evidence taken largely from secondary sources (examined by essay answers: students have a degree of choice in the areas they cover in depth);
- be able to describe and explain the fundamentals of medical sociology;
- have acquired transferable skills such as problem-solving and clear written communication.

Specific support for these learning outcomes derives from lectures, seminars and tutorials; laboratory experience across the breadth of the BM syllabus; the consideration of experimental design and interpretation; and introductory experience of clinical issues.

Non-medical course (year one)

Students should:

- be able to describe and explain the basic principles of physiological science, including physiology, pharmacology, neuroscience, biochemistry and cell biology, with appropriate reference to the major supporting evidence taken largely from secondary sources (examined by essay answers: students to have a degree of choice in the areas they cover in depth);
- have acquired the transferable skill of clear written communication supported by the learning experiences listed for medicine (first BM and Medical Sociology), including practical classes, though without the clinical emphasis.

Final Honour School of Physiological Sciences

(Medicine - terms six to nine: non-medical course - years two and three)

Within the context of subjects chosen by the student, to acquire transferable skills, as well as specific knowledge and understanding (assessed in examination essays, submitted dissertations and practical work). In particular, students should:

- be able to work from primary sources and assess evidence;
- be able to explain and evaluate current research;
- think critically and, for the best students, show originality;
- have developed the transferable skill of written communication to the extent needed to present complex scientific issues.

These learning outcomes are supported in particular through extensive participation in discussion of current science, practical experience of some advanced laboratory techniques, teaching and experience in information retrieval and, especially for those doing a laboratory-based dissertation, data manipulation and the use of statistics.

Year Four (clinical year one)

Building on their pre-clinical science, students should be able to:

- describe the basic pathophysiology and clinical presentation of the conditions listed in the clinical curriculum;
- communicate concisely, clearly and courteously with patients and colleagues;
- obtain a structured history;
- examine the principal systems;
- explain the indication for simple investigations and evaluate the results;
- perform the practical skills outlined in the first year clinical curriculum.

Year Five (clinical year two)

Through consolidation of clinical skills and introduction to the major clinical specialities, students should be able to:

- focus on the history-taking and examination of the patient's presenting symptoms;
- formulate a simple differential diagnosis;
- talk to patients and relatives with more confidence;
- discuss the relationship between primary and secondary care;
- discuss the impact of disease on the patient, family and the community.

Specific learning objectives for each course are given in the clinical year two handbook.

Year Six (clinical year three)

Prepares students for the duties of a pre-registration house officer (PRHO). Students should be able to:

- formulate a management plan after
  - taking an appropriate history
  - performing a relevant examination
  - arranging suitable investigations
  - considering the differential diagnosis and reaching a diagnosis;
- explain diagnosis and management to patient and colleagues;
- keep clear and accurate hospital records;
- explain principles of drug therapy;
- explain the steps involved in breaking bad news and obtaining informed consent;
- perform (under supervision) routine tasks, such as admitting/discharging patients, writing a prescription and presenting cases.

MSc in Diagnostic Imaging

- Students should acquire the knowledge and skills to enable them to work in a modern imaging department.

Summary of the Review

6. The graded profile in paragraph 7 indicates the extent to which the student learning experience and achievement demonstrate that the aims and objectives set by the subject provider are being met. The tests and the criteria applied by the reviewers are these:

Aspects of provision

1. Curriculum Design, Content and Organisation
2. Teaching, Learning and Assessment
3. Student Progression and Achievement
4. Student Support and Guidance
5. Learning Resources
6. Quality Management and Enhancement.

Tests to be applied

To what extent do the student learning experience and student achievement, within this aspect of provision, contribute to meeting the objectives set by the subject provider?

Do the objectives set, and the level of attainment of those objectives, allow the aims set by the subject provider to be met?

Scale points

1
The aims and/or objectives set by the subject provider are not met; there are major shortcomings that must be rectified.

2
This aspect makes an acceptable contribution to the attainment of the stated objectives, but significant improvement could be made.

The aims set by the subject provider are broadly met.

3
This aspect makes a substantial contribution to the attainment of the stated objectives; however, there is scope for improvement.

The aims set by the subject provider are substantially met.

4
This aspect makes a full contribution to the attainment of the stated objectives.

The aims set by the subject provider are met.

7. The grades awarded as a result of the review are:

Aspects of provision	Grade
Curriculum Design, Content and Organisation	3
Teaching, Learning and Assessment	3
Student Progression and Achievement	4
Student Support and Guidance	4
Learning Resources	4
Quality Management and Enhancement	3

8. The quality of education in anatomy and physiology and medicine at the University of Oxford is **approved**.

The Quality of Education

Curriculum Design, Content and Organisation

9. The undergraduate curricula match the University's intention of providing students in the physiological sciences and in medicine with demanding courses which meet the needs of students with a strong interest in, and aptitude for, the biomedical sciences, either as medical practitioners or physiologists. The curricula for the physiological sciences fully meet the aims and objectives set for them. As intended, the undergraduate pre-clinical curriculum prepares students for entry into clinical courses in Oxford or elsewhere and provides them with the opportunity to reflect on their practice. The curricula are well supported by the internationally-renowned scholarship and research profiles of the staff. Core curricula have been produced for all courses.

10. There are two routes which lead to the award of the BA in Physiological Sciences. For those students who wish to specialise in this subject, the first year lays a firm foundation and includes courses in physiology, pharmacology, neuroscience, biochemistry and cell biology. Students intending to enter the BM,BCh at Oxford, or to join clinical courses in other universities, prepare for the First BM in the first year and the first two terms of the second year, where they are offered the opportunity to acquire a good grounding in the scientific basis of medical science, including some limited medical sociology. The First BM curriculum allows students to develop an understanding of the biomedical sciences and their principles and methods. In the first year, students follow courses in morphology, reproduction and development; physiology and pharmacology; and biochemistry. The second year includes integrative courses in systems of the body; neural, behavioural and neuroendocrine systems; pathology and medical genetics. Students are encouraged to identify issues of major clinical significance and are given the opportunity to acquire key skills in communication, information technology, numeracy, literacy and teamworking.

11. Both routes come together in the Final Honours School in Physiological Sciences (FHS). Successful completion of the rigorous and demanding course leads to the award of the BA in Physiological Sciences. Non-medical physiological sciences students enter the FHS at the beginning of their second year and First BM students on the conclusion of their course in the third term of their second year. Non-medical physiological sciences students are required to undertake a dissertation and one or two practical classes, depending on whether or not their dissertation is laboratory-based. They choose six options from a list of 12 well-constructed courses, or five if they decide to write an integrative and general examination entitled 'Physiological Sciences'. Two of these options can be taken in experimental psychology.

12. Pre-clinical medical students take four options, or three if they submit a dissertation. In addition, they take the paper 'Physiological Sciences' and one or two advanced practical classes, again depending on whether their dissertation is practically-based. The dissertation has been commended by the General Medical Council. The options from which both groups of students choose reflect the research interests of the staff, offering students a wide range of advanced courses.

13. The three-year BM,BCh (clinical course) has been accredited by the General Medical Council as allowing successful students to enter the pre-registration house officer year. It focuses on the acquisition of clinical skills, competence and practice. In the first year of the BM,BCh course, students are provided with a foundation in clinical skills in medicine and surgery, and a course in pathology. In the second year, they rotate through a number of clinical specialties and in the final year they are given the opportunity of consolidating and extending their knowledge, undertaking a series of special studies modules and an elective.

14. The curriculum is systematically and regularly reviewed by the Education Committee and other academic management committees of the two faculties to achieve coherence and integration of the constituent courses. At this stage of the rapid development of the pre-clinical and clinical courses, this has yet to be fully achieved. There is some confusion in the curriculum information provided to teachers and students.

15. The University has succeeded in giving a strong biosciences emphasis to the medical courses, but the behavioural science inputs are less well-developed. Psychology and medical sociology are insufficiently represented.

16. The Communications Skills and Ethics and Law components are not yet fully integrated into the BM,BCh course. Some attention is given to the attitudes and professional behaviour required of a medical practitioner, and the General Medical Council's guidelines on the role and characteristics of a doctor, 'The Duties of a Doctor', are given to undergraduates in the first clinical year. However, the reviewers could not find evidence that this document and the issues it raises were given sufficient weight.

17. The BA Psychology, Philosophy and Physiology degree is intended to provide an opportunity for students to acquire an interdisciplinary understanding of the brain. Only the physiology units are considered in this review. They are a well-chosen selection of courses taken from the Final Honours School in Physiology.

18. The MSc in Diagnostic Imaging is a small and highly specialised course which builds on the Medical School's resources and strengths in this area. It meets the needs of students from a variety of relevant backgrounds.

19. This aspect makes a substantial contribution to the attainment of the stated objectives; however, there is scope for improvement. The aims set by the subject provider are met.

Curriculum Design, Content and Organisation: Grade 3.

Teaching, Learning and Assessment

20. An effective teaching and learning strategy focuses on enabling students to become increasingly independent learners as they progress. This is achieved in the Physiological Sciences course and the First BM through a well-tried combination of university teaching and college tutorials and supervision. Clinical teaching draws mainly on university provision and that provided by National Health Service partners. Colleges continue to provide some tutorial support.

21. An appropriate range of teaching methods is employed, including lectures, seminars, tutorials, practical and laboratory classes, various forms of clinical teaching and a limited but growing use of computer-aided learning (CAL). The reviewers observed some 40 classes covering all courses, all years and the major types of teaching. The overall quality of teaching was high, with most sessions fully meeting the stated objectives. Eight classes were judged to be outstanding. The best teaching was characterised by clear aims and achieved objectives which were well understood by students, had current and challenging content, the encouragement and support of constructive student involvement and an appropriate use of equipment, including audiovisual aids and clinical and laboratory resources. Any weaknesses observed did not suggest any systematic failure in the teaching and learning, but were the result of individual staff not paying sufficient attention to one or more of the features noted above.

22. Students are enthusiastic learners and are fully engaged with their courses. They accept that these are very demanding and willingly embrace the very heavy workload that is required of them. They participated well and constructively in classes, where appropriate, and displayed the analytical, critical and scientific skills required by the aims and objectives of the provision.

23. The provision of regular, and sometimes individual, tutorial support through the colleges makes a substantial contribution to the learning experience. The self-assessment document stresses the importance of the college tutorial system and many of the students to whom the reviewers spoke attested to its value. There are, however, considerable variations in the amount of tutorial support given. Colleges have reciprocal arrangements to allow for the impracticability of having sufficient academic specialists in each college to meet the subject needs of all its students. However, student evaluations and other documentation show that a significant number of students regard the extent of academic tutorial support they receive as unsatisfactory.

24. In general, formative and summative assessments for the physiology and pre-clinical courses use a range of appropriate assessment methods and are rigorous. Assessment tasks match the curricula and test, at an appropriate level, the aims and objectives of the provision.

25. BM,BCh students are also assessed by a range of methods upon which external examiners have commented favourably. It is clear that the School has made very considerable progress in ensuring that modes of clinical assessment are appropriate, reflect research-based advances in assessment techniques and ensure that individual clinical skills are tested for each student. There were some gaps and inconsistencies in the documented evidence which should have demonstrated that all necessary clinical skills had been attained.

26. This aspect makes a substantial contribution to the attainment of the stated objectives; however, there is scope for improvement. The aims set by the subject provider are met.

Teaching, Learning and Assessment: Grade 3.

Student Progression and Achievement

27. The University succeeds in its aim of selecting students on the basis of intellectual ability and subject aptitude. There is a high ratio of applicants to places; between 5.1 and 6.8:1 for medicine and between 2.1 and 2.8:1 for physiological sciences. Over the past three cohorts, the average GCE A-Level points score of entrants to the physiological sciences course has varied between 32.1 and 32.8 and for the First BM between 33 and 35.9. The mean scores for individual GCE A-Level subjects taken in the recent past are 9.7 for physiological sciences and 9.8 for the First BM course.

28. For those entering the undergraduate non-clinical programmes, there are rigorous selection processes in place which involve a university examination and an interview, as well as high levels of achievement in GCE A-Level or its equivalent. Selection is managed by colleges who work collaboratively to ensure that the best candidates are selected, regardless of their initial choice of college. Entry to the clinical course, the BM,BCh, is also managed through application and not automatic progression from the First BM course. Candidates must be graduates who have completed a course equivalent to the First BM. An interview determines their suitability for the clinical course. Entry to the highly specialised MSc is restricted by the number of places available and depends on the ability, professional qualifications and career intentions of those applying.

29. The University has a fair recruitment policy based on working closely with the Commission for Racial Equality and taking into account the findings of the McManus Report on entrance to UK medical schools. It seeks to ensure a gender balance in interview panels and conducts annual analyses of the characteristics of applicants and entrants. The characteristics of applicants match those of entrants. There is a slight preponderance of women in the intake and the overwhelming majority of students have GCE A-Level backgrounds and come from the UK.

30. Course completion and progression rates are very high at each stage of each programme. Recently, 94 per cent completed the First BM course and 98 per cent the Final Honours School in the physiological sciences. There are a small number of well-documented withdrawals which give no cause for concern.

31. Final Honours School awards are classified. Over the past three years, 20 per cent of those completing the FHS course have obtained a First class honours degree. The reviewers and external examiners agree that the quality of student work fully justifies the high number of First class honours degrees awarded. The majority of the remainder of the students attained an Upper Second class honours degree. Only 6.6 per cent of those following the First BM course and 10.9 per cent of those following the physiology course were awarded Lower Second class honours degrees, with one BM student being awarded a Third class honours degree. Over the past four years, there has been only one failure among the 10 students who have taken the MSc in Diagnostic Imaging.

32. The reviewers read samples drawn from 35 different batches of student work covering the full range of formatively and summatively assessed work. These demonstrate that the University's aims and objectives for the achievement of its students are fully met. This view is vigorously supported by external examiners, employers, practising clinicians and former students. Students think critically and the best students show originality. They are capable of using primary sources and of assessing and evaluating current evidence and research. They have also developed appropriate transferable or key skills in communication, information technology, literacy, numeracy and teamworking. The quality of project work is high and some undergraduates have succeeded in publishing their work in professional, and on occasions professionally-refereed, journals.

33. The employment record of all courses is good. A large proportion of students graduating from the physiological science programme in the last two years (40 per cent) proceeded to research degrees, 28 per cent have entered employment outside science, a further 10 per cent have entered medicine and others are taking taught masters courses in a variety of subjects. All BM,BCh students in the same period have successfully entered the pre-registration house officer year.

34. This aspect makes a full contribution to the attainment of the stated objectives. The aims set by the subject provider are met.

Student Progression and Achievement: Grade 4.

Student Support and Guidance

35. There is a complex and effective system of student support in place which draws on the colleges, the faculties and their departments and the University. The University recognises that the quality of its intake and the demands of its courses are daunting for some students. It has developed an appropriate strategy for identifying and meeting student need through a broad range of mechanisms and, in particular, through the tutorial system. Clear written guidance on student support facilities is provided by colleges and the University.

36. Induction arrangements are thorough. New students are invited to the University before the formal beginning of term. During the first week of term, students are given advice on study skills and are introduced to the library and information technology facilities. College and departmental events provide students with essential information about their courses. New students are introduced to their tutors and to the academic, administrative and college structures of the University. The Student Medical Society and Osler House, a social facility provided primarily for clinical students, play a significant role in helping new students. This is particularly important for the large number of students who enter the BM,BCh course from other universities. The induction process for these students is sensitively managed.

37. Students receive academic guidance from a variety of sources. For non-clinical undergraduate students, the college-based tutorial is the cornerstone of academic and personal support. College tutors arrange tutorial provision and monitor academic progress. They keep detailed records of students' tutorial performance and give students feedback on College Collections (formative examinations). At the end of term, tutors discuss with students their tutorial reports and arrangements for the next term. Students also receive guidance from course organisers.

38. There has been some difficulty in finding sufficient physiology tutors. College provision is supplemented by a university-appointed student adviser who supports physiology students both as a group and as individuals.

39. In recent years, and following on the visit of the General Medical Council in 1997, significant and successful efforts have been made to ensure effective academic and personal support for clinical students. The present system is very well co-ordinated by the Clinical Director of Studies and her deputies, who meet with all students in their fourth and fifth years, on an individual basis. During the clinical course, students are more dispersed and they are less dependent on their colleges for personal support and academic guidance. They are assigned academic tutors from among those responsible for teaching them. Personal tutors and colleges remain an important source of personal support. Some colleges have recently appointed additional clinical staff to add to the clinical training and learning opportunities for their students. Pastoral supervisors for clinical students are now in place. They provide personal support for clinical students and are offered training for their role. Informative guidebooks describe academic requirements and support available for both postgraduate and undergraduate students.

40. Clinical students are increasingly gaining experience away from the Oxford teaching hospitals and effective arrangements have been made to provide appropriate support and ready access to help for any problems that may arise. There is a careful system of support for electives, but the extent to which students are interviewed about their elective experience is variable and requires attention.

41. Useful careers advice comes from a wide variety of sources. Physiology students and pre-clinical students value the help they receive from informed college tutors and the careers service. Clinical students have regular careers fairs in which they play a significant organisational role. They receive additional help from the Postgraduate Dean and his colleagues and specific counselling from the Deputy Director of Clinical Sciences and a small team of advisers.

42. This aspect makes a full contribution to the attainment of the stated objectives. The aims set by the subject provider are met.

Student Support and Guidance:
Grade 4

Learning Resources

43. Learning resources support the aims and objectives of the provision. They are effectively managed and co-ordinated between colleges, the departments and the University and, in the case of the clinical courses, between the University and the National Health Service. They are well maintained and have been actively developed to meet course needs.

44. Individual colleges offer a living and learning environment of an extremely high quality. They provide most of the library and information technology needs of undergraduate non-clinical students. The University is completing the connection of students' rooms to the internet and the university intranet. Discounts on hardware and software can be obtained through the University.

45. Students benefit from a research environment which is recognised as world-class, particularly in the Final Honours School, where they interact with acclaimed researchers and make use of well-resourced research facilities. Highly-specialised research-funded equipment, such as confocal microscopy and flow cytometry, is used in teaching.

46. Library provision is excellent. Book and journal holdings are very good and there is good student access. The libraries are impressive in design and scope. They are run by informed and enthusiastic staff who work together and also with their academic colleagues. The Radcliffe Science Library is a national copyright depository and reference library. It is complemented by the Hooke (lending) Library and the Cairns Library for clinical students, and by college libraries. The Cairns Library has recently been refurbished to a high standard. There are good arrangements in place for user induction, with numerous clearly written and helpful pamphlets. Course handbooks are well-constructed and comprehensive.

47. Information technology resources are well founded. There are sufficient numbers of networked PCs available in colleges, libraries and departments, with a wide range of appropriate software. The use of the internet and CAL to support teaching and learning is being actively developed, with departments authoring their own good material, for example, in pharmacology and pathology. The Beeson Room adjacent to the Cairns Library is very well equipped, allowing students to develop advanced

information skills for evidence-based medicine. Teaching general practices are linked to the University, as are an increasing number of district general hospitals used for clinical placement in the sixth year.

48. Teaching accommodation is under some pressure, but is adequate for the current number of students. There are plans to expand and improve it in the immediate future. The reviewers found a few examples of cramped and uncomfortable classrooms. Most clinical teaching occurs in the Oxford teaching hospitals where clinical facilities are excellent. Good social, leisure and sports facilities are provided by the University, the colleges and Osler House.

49. This aspect makes a full contribution to the attainment of the stated objectives. The aims set by the subject provider are met.

Learning Resources:
Grade 4.

Quality Management and Enhancement

50. There is an evolving culture of quality management and enhancement, which is built upon a strong and secure informally-based collegiate system and academic tradition. More formal quality management structures have been developed very recently.

51. Within the current structure of the University, the Faculty Boards are responsible for ensuring the quality of provision. The Faculty of Physiological Sciences is responsible for the non-clinical undergraduate courses and the Faculty of Clinical Medicine for the BM,BCh course. Both Faculty Boards recognise that this division is disadvantageous and they will shortly join together in one of five newly-created university divisions.

52. Both Faculty Boards delegate the responsibility for the executive management of quality to their respective and recently created Education Committees. Recent progress is largely due to the enthusiasm with which each has been led. The Education Committees receive recommendations from the departments and Year Course Groups. Each has student representatives, as does the joint standing committee which bridges the two Faculty Boards. The arrangements for gathering and considering external examiners' reports have recently been revised. External examiners' recommendations are now fully considered and, where appropriate, action is taken.

53. Students' comments on courses are elicited by a variety of mechanisms, including college and university questionnaires, a web-based students' comment site, membership of faculty committees and formal and informal contact with students. The reviewers found that students' comments were given careful consideration and as a result appropriate changes had been made to the sequencing and content of teaching, resources and assessment.

54. The medical courses were last visited by the General Medical Council in 1997. The courses have General Medical Council accreditation and successful students may enter the pre-registration house officer year. However, there is no evidence that the final General Medical Council report has been fully considered by the Pre-clinical Education Committee of the Faculty of Physiological Sciences. Clinicians and employers are becoming increasingly involved in the design and monitoring of the provision and those whom the reviewers met particularly welcomed this development.

55. Quality management arrangements introduced in the last two years are becoming increasingly effective in identifying areas of good practice and matters which require attention. For example, it is only in the last year that external examiners have played their full part, in accord with university regulations, in the clinical attachments making up year five and there is evidence of a considered response only from one specialty (orthopaedics). Recent improvements have not been in place for sufficient time to allow either the reviewers or the University to be sure that they are securely embedded and sustainable, or to fully judge their effectiveness. The University and the Education Committees are aware of many of the issues identified earlier in this report with respect to the assessment of clinical skills, variability in tutorial provision and the curricula in particular. However, the actions proposed to meet these problems have not yet had time to take effect. There is still work to be done to ensure the closure of quality assurance loops. The ongoing review of courses involving staff and students is promising.

56. It is now mandatory for new university staff to attend an initial induction programme. They are well supported by mentors and useful documentation. Both faculties have appointed educational advisers and the Medical School has appointed a specialist in medical education. All staff are encouraged to participate in well-developed university staff development programmes, focusing on teaching, learning and assessment. The University is justifiably proud of its record in developing teaching courses for NHS clinical staff. These excellent programmes have an extremely high uptake and remain in demand. The recent introduction of systematic training for examiners is welcome.

57. The reviewers found the self-assessment document served its purpose as a sound basis for the review. They noted the way in which the University had wisely used the preparation for the review as an integral part of its

own quality management strategy. In this way, many of the issues raised in the most recent academic audit report (1993) have been or are being addressed.

58. This aspect makes a substantial contribution to the attainment of the stated objectives; however, there is scope for improvement. The aims set by the subject provider are substantially met.

Quality Management and Enhancement: Grade 3.

Conclusions

59. The quality of education in anatomy and physiology and medicine at the University of Oxford is approved. All aspects make at least a substantial contribution to the attainment of the stated objectives and the aims are at least substantially met. The reviewers come to this conclusion, based upon the review visit together with analysis of the self-assessment and additional data provided.

60. The positive features of the education in anatomy and physiology and medicine in relation to the aspects of provision include the following:

a. Curricula, particularly in the Final Honours School, which are well supported by the internationally-renowned scholarly and research profiles of the staff (paragraphs 9; 12).

b. Curricula in the physiological sciences that fully meet the demanding academic objectives set for them and medical curricula that equip students to enter the pre-registration house officer year (paragraphs 9; 13).

c. Systematic processes that are producing and refining core curricula for all courses (paragraph 14).

d. The very high quality of teaching in general (paragraph 21).

e. Enthusiastic and committed students who respond to the challenges of demanding courses (paragraph 22).

f. Robust and rigorous admissions procedures (paragraph 28).

g. Student work which is at least sound with many examples of very good, and some of outstanding, achievement (paragraphs 31; 32).

h. Full support for the courses and the high levels of student achievement from external examiners, employers, clinicians and former students (paragraph 32).

i. Very sound and integrated arrangements for student support and guidance, including clinical students (paragraphs 35; 39).

j. Effective student induction systems (paragraph 36).

k. Very well-planned and well-managed learning resources that are effectively co-ordinated across multiple sites (paragraph 43).

l. The good living and learning environment provided by the colleges (paragraph 44).

m. Excellent library facilities and high-quality administrative, library, scientific and technical staff and equipment (paragraph 46; 47).

n. A recently introduced and robust set of quality management arrangements which is increasingly effective (paragraphs 50; 55).

o. Effective staff development policies, particularly for clinical staff (paragraph 56).

61. The quality of education in anatomy and physiology and medicine could be improved by addressing the following issues:

a. Further integration with the medical curriculum of Communications Studies and those aspects of medical ethics addressed in the General Medical Council's guidelines for medical practice, 'The Duties of a Doctor', and a strengthening of the contribution of the behavioural and social sciences to the medical curriculum (paragraphs 14 to 16).

b. Although generally highly regarded, some inconsistencies in the availability of academic tutorial provision (paragraph 23).

c. Strengthening the robustness of methods of assessment for clinical skills (paragraph 25).

d. Monitoring recently introduced and proposed changes in the quality management system to ensure that it continues to develop effectively (paragraph 55).