

Review of Imperial College Faculty of Medicine

This visit is part of a regional review and uses a risk-based approach. For more information on this approach see <http://www.gmc-uk.org/education/13707.asp>.

Review at a glance

About the School

Programme	MBBS
University	Imperial College London
Years of course	6 (MBBS/BSC) 4 (MBBS graduate entry)

Programme structure	<p>The School operates a six year undergraduate entry and a four year graduate entry MBBS programme</p> <p>Years 1-2 of the undergraduate entry programme are focussed on basic clinical science, problem based learning and early patient contact in primary care (year 1) and secondary care (year 2). In year 3, the focus is on the acquisition of basic clinical skills, with the end of year assessment including an assessment of practical skills in the form of an objective structured clinical examination (OSCE). In year 4, all students complete an intercalated BSc, for which several different courses are offered by the School. In year 5, students return to clinical placements and take a dedicated pathology module. The final year of the course incorporates student assistantships in the form of a GP assistantship, and a senior medicine and a senior surgery attachment. Students also complete a number of specialty placements, an elective and a two week course on preparedness for the Foundation Programme in July.</p> <p>Graduate entry students complete a dedicated graduate entry year 1 which is equivalent to years 1-2 of the six year course, before joining year 3 of the six year course. On completion of this year, they then join year 5 of the undergraduate course and complete years 5 and 6 of the six year programme to graduate.</p>
Number of students	<p>2,068 (2011 MSAR)</p> <p>Six year MBBS/BSc: 1,865</p> <p>Four year MBBS (graduate entry only): 203</p>
Number of LEPs	<p>37 hospitals across 29 trusts</p> <p>GP placements not reported</p>
Local deanery(ies)	<p>London Deanery</p>
Last GMC visit	<p>2010 QABME (supplementary to 2008 visit)</p>

Outstanding actions from last visit	<p>Open QABME recommendations:</p>	<p>Update:</p>
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	<p>1. Continue its efforts to identify more protected time for reflection and consolidation of learning within the formal timetable (2007/08 report paragraph 31).</p>	<p>Improvement in the 6 year course and later years of both courses:</p> <ul style="list-style-type: none"> ▪ Year 5 students noted that students in years 1-2 now received more time for independent study, although this could depend on the clinical placement they were allocated ▪ clinical teachers identified where the curriculum had been reduced. <p>However, continuing issues noted in the graduate entry programme.</p> <p>(see recommendation 1)</p>
	<p>2. Give further consideration to improving the integration of social and behavioural sciences within the course (2007/08 report paragraph 49).</p>	<p>Sociology and psychology courses have been reviewed and modified. In both courses, links have been made with the early patient contact components of the curriculum.</p> <p>(See area of improvement 1)</p>
	<p>3. Review the content of teaching sessions to ensure learning outcomes are being delivered at a level appropriate for undergraduate medical students (2007/08 report paragraph 62).</p>	<p>Delivery of some learning outcomes continues to be identified as problematic in the graduate entry programme.</p> <p>(see recommendation 1)</p>

	<p>4. Make greater use of opportunities to involve students in team-working with professions allied to healthcare (2007/08 report paragraph 64).</p>	<p>Students are taught in multi disciplinary teams as part of a dedicated course in year 3. However, additional opportunities remain inconsistent, e.g. ward 'buddying' with pharmacy students has not been effective and the healthcare assistant scheme is not yet in place.</p>
	<p>5. Rationalise and reduce the burden of written examinations in favour of testing practical skills and clinical application of knowledge (2007/08 report paragraph 87).</p>	<p>The School has reduced the examinations in years 2, 5 and 6 and quantity of written assessment was not cited as an issue by students, although some issues were noted with formative exams (see paragraph 10). Students also reported a high level of assessment of practical skills in clinical placements. Some students were concerned that the number of assessments requiring sign-off could compromise the feedback they got on their performance, but generally considered that the practical assessments provided good learning opportunities.</p>

	6. Provide ongoing, formal examiner training for the clinical examinations, including PACES and the in-course assessments to ensure consistency of marking (2007/08 report paragraphs 92, 96 and 98).	Compulsory training is provided annually to PACES and OSCE examiners. This includes marking a mock practical assessment. Stations are double marked, and the School also uses 'peripatetic' examiners who move between stations to monitor marking for consistency.
	7. Continue to implement, monitor and evaluate the planned changes following the completion of the curriculum review (see paragraphs 21-22).	The School continues to implement the curriculum review, and a new year 6 is now being delivered. We have set requirements around evaluating the effectiveness of the new year 6 course structure, particularly those aspects which involve preparation for practice on the Foundation Programme. (see requirement 1)

About the visit

Visit dates	29-30 November 2012
Sites visited	Charing Cross Hospital Northwick Park
Areas of exploration	Preparedness for practice, supervision and competency of students, quality management including clinical placements, equality and diversity including outreach strategies, previous visit requirements, assessment, the new year 6, graduate entry programme, training and development of trainers.

Were any patient safety concerns identified during the visit?	No
Were any significant educational concerns identified?	No
Has further regulatory action been requested via the <u>responses to concerns element of the QIF</u>?	No

Summary

- 1 London has been chosen as the region for review in 2012-13 and all five London medical schools have been visited as part of the review. The north west London regional visit team visited Imperial College Faculty of Medicine (the School), a faculty of Imperial College London in November 2012. The School has over 2,000 students on its MBBS course, including a four year graduate entry route. The first cohort of graduate entry students graduated in 2012. Imperial has been visited by the GMC on three occasions since 2008.
- 2 The school is operating within an environment of uncertainty. At the time of our visit, a number of major decisions were being taken on the future configuration of services in north west London. These decisions have the potential to cause disruption to the education being delivered at the School, as they involve significant reductions to services at hospitals which provide a large number of clinical placements. In particular, a reduction in emergency departments may mean a reduction in educational opportunities in acute specialties.
- 3 Our findings were generally positive, but there are also areas for improvement. The School has a strong quality management framework which is effective in improving teaching and clinical placements, and which can be used to disseminate good practice. The School also works well with the local Foundation School, and the School's graduates are highly successful when applying to academic foundation programmes. Support from the Faculty Education Office was praised by students and staff, and the School has improved some parts of the course in response to previous visit requirements. We also heard about a pilot project in which a small number of students had worked as healthcare assistants (HCAs). We found this to be a positive initiative and hope to see it implemented in full. Training for trainers is also meeting our standards, although we consider that it could be improved by providing a more structured programme of development for staff.
- 4 We found some areas for improvement, particularly with regard to the mapping and management of the curriculum and assessments which have been the subject of previous visit requirements. We recognise that the School has attempted to address these requirements, but that work is still needed. We also found some more specific issues which could be improved in relation to the GEP, feedback and pastoral care in the later years of the course, the use of equality and diversity data, and timing of

training for peer assisted learning. We also consider that the implementation of the new year 6 needs to be monitored to ensure the planned outcomes of the course are delivered. We were pleased to find that the School was aware of some of these issues and was planning to address them.

Requirements

We set requirements where we have found that our standards are not being met. Our requirements explain what an organisation has to address to make sure that it meets those standards. If these requirements are not met, we can begin to withdraw approval.

Number	Paragraph in <i>Tomorrow's Doctors (2009)</i>	Requirements for the School
1	TD82, 93, 86, 112	Develop a curriculum map which can be used as a basis for managing the curriculum and associated assessments, and a programmatic blueprint which demonstrates how the outcomes of <i>Tomorrow's Doctors (2009)</i> are assessed throughout the course. The curriculum map should be provided with the 2013 MSAR.
2	TD112	Produce a timetable for the implementation and evaluation of the new assessment strategy, including blueprinting assessments to <i>Tomorrow's Doctors (2009)</i> and ensuring all students receive appropriate, developmental formative assessments. The timetable should outline the specific actions and milestones for the implementation of the strategy. A timetable or project plan should be provided to the GMC by 30 June 2013.

3	TD109	<p>Evaluate the delivery of the new structure of year 6, including:</p> <ul style="list-style-type: none"> ▪ how the senior medicine and surgery attachments have met the requirements of paragraph 109 of <i>Tomorrow's Doctors</i> (2009) (student assistantships), and; ▪ how the new transition course improves preparedness for the Foundation Programme.
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Requirement 1: Develop a curriculum map which can be used as a basis for managing the curriculum and assessments

- 5 The School has mapped its curriculum and learning outcomes to *Tomorrow's Doctors* (2009) (TD09) as part of its iMAP project. However, assessment staff that we met stated that the series of documents which make up the curriculum map are difficult to use, and that the format required extensive changes to be used to manage the curriculum and assessments. The School needs to ensure there is an easy to use curriculum map which clearly identifies learning outcomes mapped to TD09, and which can be used to manage the curriculum and assessments.

- 6 We consider that an improved curriculum map is essential for the School to make improvements to system of assessment. Although the curriculum itself is directly mapped to TD09, individual assessments are not. Assessment staff we met stated that the School currently blueprints its assessments against the time spent on each learning outcome in lectures and placements. We also observed that the examination blueprint does not identify the outcomes and domains against which individual examination questions or clinical stations could be blueprinted. This was reflected in the experience of some of the students we met, who considered that the weighting of some topics in assessments was disproportionate and did not always map to learning outcomes in lectures or e-modules. The completion of a revised curriculum map should enable the School to provide a single programmatic blueprint for assessment, demonstrating how students meet the course outcomes across the programme as a whole.

- 7 We accept that the School has made progress in mapping its curriculum, but consider that improvement is still needed in this area. The School

has recognised that the curriculum map requires work, and has allocated resources to complete a revised version within 12 months. In view of the complexity and importance of this project, we encourage the school to ensure that sufficient resources are available for this work.

Requirement 2: Implement and evaluate the assessment strategy

- 8** The School has commissioned an external review of its assessment procedures which is being carried out by a member of staff from another medical school. Assessment staff we met explained that the first stage of this review was the production of a new assessment strategy, which has recently been completed. The strategy sets out the principles for carrying out assessments at the School and addresses some of the issues raised by staff and students about assessment at the School.
- 9** Despite the progress made in this area, we were unclear about how the assessment strategy would be taken forward to the next stage with the development of specific goals and a timetable for their implementation. We also noted a number of continuing weaknesses in the assessment system which would be part of this work. For example, the School's assessment blueprints do not map to the outcomes of TD09, or the curriculum learning outcomes (see paragraph **Error! Reference source not found.6**). We note that a useable curriculum map is required before this can be done and consider it a matter of priority.
- 10** We also found that the assessment strategy needs to be implemented in order to improve the provision of formative assessment that supports students' learning and helps students' awareness of their individual progress. Year 6 students stated that they would benefit from more preparation for the practical PACES examination and year 3 students had found that the format of formative assessment did not always reflect that of summative exams. Graduate entry students also noted specifically that they had missed out on preparation for an assessment in Medical Ethics, and that the resit of this assessment had resulted in students missing a significant amount of the next year's teaching. The School recognised this issue and stated that it has addressed it for the coming year. These shortcomings were recognised by some staff at the School and it appears that improvements are taking place: academic teachers noted that considerable work had been done to improve the provision of formative assessment, and this was recognised by students in year 4.
- 11** We consider that the principles of the assessment strategy, if implemented, will ensure that assessment is carried out in accordance

with the requirements of TD09, and note that a functional curriculum map is needed to fulfil some aspects of the strategy. While we are pleased to see the strategy is complete and being disseminated to staff in the School, we consider that the School still needs to implement fully and evaluate the assessment strategy. The School must provide a clear timetable for implementation of the strategy, including milestones for the delivery of each aspect. A timetable or project plan should be provided to the GMC by 30 June 2013.

Requirement 3: Evaluate the changes made to the curriculum and assessment in year 6, including how the outcomes for students assistantships have been delivered

- 12** The School has recently introduced a modified year 6 programme. Students spend the main part of the year in speciality based clinical placements and then undertake an elective placement. The final component of the year is a two week transition course designed to prepare students for the Foundation Programme and which has been developed in conjunction with the North West Thames Foundation School. The transition course will run for the first time in July 2013. Student assistantships are incorporated in the form of an assistantship at a GP practice and a 'senior medicine' and 'senior surgery' placement. The GP assistantship placement is 2.5 weeks in duration and the senior medicine and surgery placements are four weeks. The latter placements pre-date the introduction of student assistantships and have been modified to meet the criteria of TD09. Students are placed in surgical and medical teams and are expected to be responsible for the care of five patients at any one time, under the direct supervision of qualified medical staff.
- 13** Students we met were positive about the clinical experience they received and considered the GP assistantship to be helpful in preparing them for practice. However, year 6 students and clinical teachers that we met at LEPs were less clear about the purpose and format of the senior medical and surgery placements. We also heard of a small number of examples where students had not engaged fully with the senior medicine and surgery placements, or where the tasks assigned to them had not had as much educational value as intended.
- 14** We note that quality management and evaluation are well embedded in the School's processes. As part of its evaluation of the first year of the new year 6 structure, the School must examine how the learning outcomes of the senior medicine and surgery placements ensure that students are well prepared for the eventual responsibilities as a

Foundation Year 1 (F1) doctor. The evaluation should also consider the effectiveness of the new Transition Course at preparing students for the Foundation Programme.

Recommendations

We set recommendations where we have found areas for improvement related to our standards. Our recommendations explain what an organisation should address to improve in these areas, in line with best practice.

Number	Paragraph in <i>Tomorrow's Doctors (2009)</i>	Recommendations for the School
1	TD81, 83, 93 100, 101	Reduce the workload in year 1 of the graduate entry programme and ensure that teaching on the course is appropriate to the needs of students and takes full and proper account of the learning outcomes.
2	TD85, 111	Ensure that all students receive feedback from assessments that enables them to identify areas of strength and weakness.
3	TD128, 148	Ensure that all students who are involved in peer assisted teaching receive appropriate support and/or training before delivering this teaching.
4	TD81, 82 87, 93 114	Explore the reasons for students' perception that external courses in medicine and surgery are necessary to pass the year 6 assessments, and take action to address this perception.
5	TD124, 131	Improve the support provided through the personal tutor system in years 3-6.
6	TD60	Carry out routine analysis of equality and diversity data to ensure that policies are being implemented and any concerns are identified.
7	TD43b	Identify best practice in relation to patient and public involvement in quality management, and incorporate this into the quality management of the course.

Recommendation 1: Reduce the workload in year 1 of the

graduate entry programme and ensure teaching on the programme is appropriate.

- 15** The first cohort of the School's graduate entry programme graduated in 2012 and the School has used this opportunity to review the programme. The School's review highlighted a heavy workload in a relatively short first year, and teaching on some parts of the course not being linked to learning outcomes. Our findings reflect a similar set of issues: students in year 6 we met consistently identified the workload in the early part of the course as an issue, year 1-2 students also considered that the duration of the first year was too short, and students in year 3 who had completed year 1 of the graduate entry course considered that there was insufficient time to consolidate their learning. Students in year 3 had also found that some lecturers teaching on the graduate entry programme did not teach the identified learning outcomes.
- 16** The School has taken some steps to improve these aspects of the programme; for example, ensuring lectures on the programme do not exceed 40 minutes. Senior management staff at the School told us that some of the lecturers used specifically for the graduate entry programme had not performed as expected, and that the School was introducing more experienced teachers to the course. Students in year 3 were also aware of changes that had been made in response to their feedback, and were confident that the School would restructure the course in line with feedback. We were pleased to see that the School has taken steps to evaluate the programme and has identified key areas to improve. The School should act on its review of the graduate entry programme to ensure that the workload in the first year is manageable and that teaching clearly links to learning outcomes identified in the curriculum.

Recommendation 2: Ensure that all students receive feedback from all assessments

- 17** Students across a number of years identified feedback from assessments as an area they would like to see improved. Students we met told us that while those who failed an assessment received detailed and personalised feedback that enabled them to improve, this was not the case for those who passed the assessment. Year 6 students we met at LEPs and at the School were unable to identify specific areas where they had performed poorly in their written and practical assessments. At present, students receive a breakdown of their marks across broad themes, with a comparison to the performance of their peers. Students we spoke to stated that this information was not detailed enough to allow them to judge specific areas of strength and weakness, and wanted the School to

provide comments on their performance, and information on specific questions or areas of knowledge or tasks where they performed less well. Students can meet with their personal tutor to discuss their examination performance, but we were told that this was not always helpful as tutors did not necessarily receive any more information than the students, and that tutors themselves were also variable in their ability to help students' academic performance (see paragraph 25). This perception was also supported by students in years 1-3, though this group was more positive about feedback received from formative practical assessments than students in later years.

- 18** School staff told us that a large amount of personalised feedback had been delivered to students on an individual basis, and that considerable effort had gone into improving the quality of feedback. Assessment staff stated that a feedback session had been introduced in year 5 for the written exam and each of the PACES stations, and that this was to be rolled out to the rest of the course. Year 4 students also considered that feedback had improved and that they were receiving more information on their performance every year. However, they still considered it to be work in progress.
- 19** We recognise that the School has made efforts to improve feedback, and that this is a highly challenging area nationally. The School also has a large number of students and we note the logistical challenges in delivering individualised feedback to over 2,000 students. However, we note that the School has already put in place some strategies to improve feedback in year 5, and should continue to identify how it can improve the provision of individual feedback to all its students.

Recommendation 3: Ensure that all students involved in peer assisted teaching are trained and supported

- 20** We noted significant use of peer assisted learning within the School, an approach whereby students from later years of the course are involved with teaching students in earlier years. This approach is used particularly in the preparation for the year 3 OSCE and in the communication skills teaching in years 1-2. The preparation for the year 3 OSCE is delivered through many student societies linked with the Medical Student Union. The School provides training to students in year 5 to support their role in delivering teaching. Students we met in year 4 also advised that they were involved in delivering some peer assisted learning, including preparation for the year 3 OSCE and year 1 communication skills, but that they would not receive training to teach until year 5. The School

should ensure that all students should receive training on how to teach earlier in the course, so that those who are subsequently involved in peer assisted learning are supported and trained.

Recommendation 4: Address students' perception that external courses are required in order to pass assessments.

- 21** A consistent issue raised by year 6 students was the feeling that undertaking external commercial courses is necessary to pass the final exams. These courses are provided on a commercial basis, often by clinical staff associated with Imperial College, and students pay to attend. Students believed the courses covered core parts of the School's curriculum on which they would be assessed. They also considered that their attendance at courses reflected a lack of teaching on some areas where they would be assessed. We also note that uncertainty about what would be covered in the new revision sessions provided by the School was cited as a reason to attend external courses by some students. While we accept that commercial courses are now a feature of undergraduate medical education and that staff from the School may be involved in some courses, we consider that the feeling amongst students that attendance on particular commercial courses run by particular members of staff is essential is a cause for concern.
- 22** The School management advised that staff involved in commercial courses will not be involved in the setting of assessments and that the School provided teaching on all areas of assessment. However, they accepted that this was not the perception of students, and that they needed to act on this.
- 23** We consider that the School needs to communicate with its students about the knowledge required for the final assessments, and to signpost them to where this is covered in the formal programme of teaching. The School also needs to review the teaching and assessment for the final exam to determine whether the perception of students reflects any shortcoming in the delivery of the curriculum and/or the appropriateness of the assessments, and to address any deficiencies identified. We consider that taking these actions would help the School to improve the perception of fairness and transparency amongst students in relation to the final assessment.

Recommendation 5: Improve the support provided through the personal tutor system in years 3-6

- 24** We found that the personal tutor system was well regarded and supported in years 1-2 of the course, but that students thought that this was not the case in the later years of the programme. At present, years 1-2 have a problem based learning (PBL) tutor who is also their personal tutor. Students we met considered that both the tutors and the structured programme of compulsory meetings meant that they had access to good academic and pastoral support. The support delivered through the welfare system and Faculty Education Office (FEO) was also praised consistently by students.
- 25** Students in year 3 receive a new personal tutor who remains their tutor until year 6. Students in the later years of the programme were less positive however; we heard a small number of examples where students had found tutors were unresponsive to their communication or were unhelpful. In these scenarios, students had found that they were able to access support directly through the FEO, or to change tutors.
- 26** A further, more widespread problem was that students in the later years did not feel that the system provided a good route to access support. They noted that, as there was not a compulsory, structured framework for the tutor system in the later years, they did not see the need to meet their tutor unless they had a particular problem, but that the lack of a pre-existing relationship with their tutor meant that they would seek other avenues for support instead. As a result of these issues, students felt they were not receiving enough support though the personal tutor system in years 3-6.
- 27** Student support staff stated that students were able to retain their tutors from years 1-2, and that students could easily change tutors if they felt that the support they were receiving was inadequate. We confirmed that this was indeed the case with students, although not all students were aware of this opportunity. Student support staff also recognised that students in the later years would benefit from a more consistent and structured relationship with their tutor. The School management team told us about a new, more structured personal tutor system being introduced into year 3 which includes both academic and pastoral support. The School should act on its plans to implement the new personal tutor system to years 4-6 as well.

Recommendation 6: Carry out routine analysis of equality and diversity data.

- 28** We reviewed the School's equality and diversity policies and widening participation arrangements to see how the School identifies trends in its progression data. We found that arrangements at the School are generally good. There are a number of widening participation schemes available in the School, such as a programme of e-mentoring for applicants. The School participates in wider schemes such as the Amos Bursary, which is designed to 'assist academically able British boys from inner city schools, with family connections to Africa or The Caribbean [...] to access topflight universities'¹. The School also reserves spaces for students meeting widening participation criteria who perform immediately underneath the cut off for the BioMedical Admissions Test (BMAT) entry examination.
- 29** Students we met spoke highly of the support provided through the FEO and welfare support, and reported that the School deals effectively with adjustments to placements; students with disabilities that impacted on their ability to travel, or who had childcare commitments, had had this taken into account in the organisation of their placements. Admissions staff also outlined a clear process for communicating the specific needs of students with disabilities through the admissions process.
- 30** Despite the generally positive findings in this area, we found that there was not a consistent approach to the analysis of data about equality and diversity. For example, the School tracks the progression of those admitted through the adjusted criteria on the BMAT entry examination, but does not do this for other groups. We identified attrition rates as an area for exploration on the visit, but found that the School had not carried out analysis in this area to see if this reflected an issue for any particular group. We also found that there was a lack of data to demonstrate outcomes for some widening participation projects: staff with responsibility for admissions also advised that the outcomes of the e-mentoring and Amos Bursary [see above] projects were not monitored closely. However, a paper had been produced to demonstrate that a summer school project for sixth formers run by the School had resulted in an increased level of offers when applying to medical schools nationally.
- 31** The School has put in place plans and resources, including staff, to conduct this analysis in 2013, but accepted that systematic analysis of equality and diversity issues across the programme had not been prioritised in the past. The School should ensure that systematic

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¹ <http://www.amosbursary.org.uk/about/>

monitoring and analysis of its equality and diversity data is carried out across the programme as a whole.

Recommendation 7: Include information from patients and the public in the quality management of the course

- 32** The School makes good use of patients and the public to deliver some aspects of the programme, particularly in the early years of the course. Quality management staff also told us that the School had piloted a project to collect patients' feedback on students, but that the results of the pilot had been disappointing in terms of the quality of data received. The quality management team stated that it was difficult for patients to provide constructive comments which would help improve the quality of training. However, they noted that a member of staff had received funding to conduct further research in this area.
- 33** The use of data from patients and the public in quality management is a challenging area nationally. We acknowledge that the School has made efforts to collect patient feedback and that patients and the public are involved in the delivery of the programme. However, we consider that the involvement of patients and the public could be developed further within the School's quality management processes. The School should review the involvement of patients and the public within its quality management processes, investigate national best practise in this area and incorporate this into its own quality management processes.

Areas of good practice

We note good practice where we have found exceptional or innovative examples of work or problem-solving related to our standards that should be shared with others and/or developed further.

Number	Paragraph in <i>Tomorrow's Doctors</i> (2009)	Areas of good practice for the School
1	TD55	The use of Service Increment For Teaching (SIFT) funded teaching clinics at LEPs which has resulted in improved opportunities for students in clinical placements, and the dissemination of this good practice through the School's programme of quality management activity.

2	TD 125, 134,	The strong science grounding of the course which has enabled graduates to be highly competitive when applying to academic foundation programmes.
3	TD 43, 153	<p>The collaboration between the School and the North West Thames Foundation School (NWTFS) to:</p> <ul style="list-style-type: none"> ▪ develop the course at the end of year 6 to improve the preparedness of Imperial graduates for the Foundation Programme ▪ provide information to Imperial students about the Foundation Programme, and; ▪ to support Imperial graduates working in other foundation schools.

Good practice 1: SIFT funded teaching clinics

34 Quality management at the School is working well and there is a strong framework in place: quality is monitored through Student Online Evaluation (SOLE), a programme of annual quality visits to LEPs (AOVs) and through regular staff-student liaison groups (SSLGs). Quality management staff were aware of the limitations of these individual methodologies and had used data triangulated from a number of different sources, or monitored longitudinally to improve education. For example, the School had used SOLE and SSLG data to identify problems and make improvements to its Dermatology placements. Data from these sources had also been used to monitor and confirm improvements in the course.

35 In particular, we were impressed by the School's use of the model of SIFT funded teaching clinics at some LEPs, especially in recognition of how challenging this can be in practice given the current financial pressures at these organisations. These clinics are funded out of SIFT money and while they deliver service, they are driven by educational rather than service needs allowing consultants to deliver teaching in the outpatient setting. We visited both Northwick Park and Charing Cross Hospitals and found that both sites were running SIFT funded clinics which provided good educational opportunities for students. Quality management staff viewed the clinics as a way to ensure that students received benefits from SIFT funding, and have disseminated this model

through AQVs. The School asks all LEPs to implement SIFT clinics, and while quality management staff acknowledged that there were difficulties with this approach (such as finding additional rooms for the clinics to be delivered in), they considered that it was helping them improve the education provided in clinical placements. We recognise the School's proactive approach to introducing changes and enhancements to its clinical placements.

Good practice 2: How the curriculum enables students to be successful when applying for places on academic foundation programmes

- 36** There is a strong emphasis on science and clinical research in the School's curriculum, and students receive good opportunities to develop skills in clinical research. All students on the six year programme complete one of a range of intercalated BSc courses and there are also opportunities for students to complete PhDs within their programme. The students we met who had completed year 4 were positive about their intercalated year, and considered that it had enhanced their clinical knowledge. Students in years 1 and 2 were also positive about the science elements of the course and confirmed they were clinically relevant to their training.
- 37** This science grounding of the curriculum has enabled Imperial graduates to be successful when applying for places on the Foundation Programme and the Academic Foundation Programme. Staff from the NWTFS confirmed that of 118 applications for the Academic Foundation Programme in the NWTFS in 2012 from the School, 40 had been successful. Staff from the NWTFS also noted that the opportunities provided by the School enabled students to be competitive when applying to the Foundation Programme as well.

Good practice 3: How the School collaborates with the Foundation School

- 38** We found that there is an excellent relationship between the School and the NWTFS: the NWTFS shares an office with the School's FEO and information is shared appropriately between the two teams. The NWTFS have had the opportunity to influence the School's curriculum, for example, the moving of final examinations to earlier in the year. The NWTFS is also involved in the design of some of the School's new structure of the year 6 programme, and has contributed to the Transition Course which is being delivered for the first time this year. The NWTFS is

also involved in preparing students to apply to academic foundation programmes; staff from the NWTFS provide guidance on the requirements of the programme to students in year 2, so that they can direct their learning and research activities toward building a CV that will help them when applying to the programme.

- 39** We were also impressed with the work of the NWTFS itself, in particular its work to support Imperial graduates with extenuating circumstances who stay or leave the North West Thames area in their Foundation training. For example, the School makes efforts to encourage graduates who have health problems and who do their foundation training outside the North West Thames to register with a GP and occupational health services at their trust. The NWTFS also contacts the Foundation Programme Director at the deanery where the trainee will be training. The NWTFS also provides support to Imperial graduates in other foundation schools where support from the local Foundation School is not forthcoming.

Areas of improvement

We note improvements where our evidence base highlighted an issue as a concern, but we have confirmed that the situation has improved because of action that the organisation has taken.

Number	Paragraph in <i>Tomorrow's Doctors</i> (2009) / <i>The Trainee Doctor</i>	Areas of improvement for the Deanery/School
1	TD 82, 86, 112, 168	The improvements made to the sociology and psychology courses in response to previous GMC requirements.

Area of improvement 1: Improvements to the psychology and sociology courses

- 40** Previous GMC visits identified the sociology and psychology courses as requiring improvement, as they did not cover core psychological and social science principles. Curriculum staff we met confirmed that these issues had been addressed and both courses had been restructured and new material incorporated. The new courses were delivered for the first time in 2011/12. The psychology course has been broadened to incorporate non-mental health issues and material related to very specific

research interests has been removed. We understand that for both courses, links have now been made with the early patient contact components of the course, though we were unable to evaluate these changes.

Acknowledgement

- 41** We would like to thank Imperial College and all the people we met during the visits for their cooperation and willingness to share their learning and experiences.

Appendix 1: Sources of evidence

Visit team

Team leader	Professor Anne Garden
Visitor	Dr Jill Edwards
Visitor	Mrs Natalie McMillan
Visitor	Ms Kate Bowman
Visitor	Dr Keith Myerson
Visitor	Mr Jeff Serf
Visitor	Dr Kyle Gibson
Visitor	Professor Helen Sweetland
Regional coordinator	Professor Alastair McGowan
GMC staff	Simon Roer
GMC staff	Lewis Roberts

Visit action plan

The document register (in appendix 2) gives more detail on the documents we reviewed.

Paragraph in <i>Tomorrow's Doctors</i> (2009)/ <i>The Trainee Doctor</i>	Areas explored during the visit	Documents reviewed	People interviewed	Our findings
Domain 1: Patient safety				
TD 26, 28	Explore how the school ensures students are supervised and carry out tasks within competency on placements	For exploration on all visits Doc 1: Contextual Information	Students Teachers and tutors Clinical teachers School management LEP staff	Standard met Students and supervisors report good supervision on placements.
TD27	Explore management of concerns about the fitness to practice of students, including the assessment of professional behaviours before graduating.	For exploration on all visits	Students Fitness to practice staff Clinical teachers LEP staff	Standard met School has routes for reporting un-professional behaviour by students, and sign off on professionalism is required in placements. Attendance is monitored across the programme.
TD36, 169	Transfer of information to Foundation programme and the North West Thames Foundation School to ensure	For exploration on all visits Doc 1: Contextual	Foundation school Quality management staff	Standard met (see also area of good practice 3)

	clinical tutors and supervisors are appropriately informed about the doctors they are supervising.	Information		Transfer of information to foundation schools is appropriate. The School also works well with the local foundation school.
Domain 2: Quality assurance, review and evaluation				
TD44, 53, 55	How the school identifies and manages concerns or risks raised with individual courses/placements, and changes or enhancements to its programme of education.	Doc 1: Contextual Information Doc 3: Quality management strategy Doc 4.1-4: GEMV reports	Quality management staff Students	Standard met (See also area of Good Practice 1) There is a strong quality management framework for clinical placements and there are examples of the school acting effectively to improve individual courses, teaching and placements.
TD41, 47, 55	LEPs engagement with systems to monitor the quality of teaching on placements	For exploration on all visits Doc 1: Contextual Information Doc 3: Quality management strategy Doc 4.1-4: GEMV	Quality management staff LEP staff	Standard met (See also regional report and TD157 below) The quality management framework helps the School to engage LEPs. However, some agreements are held on behalf of the school by NHS

		reports Doc 13.1-3: agreements with LEPs		London, which can result in difficulties enforcing agreements. This situation is not unique to Imperial.
TD43b	Patient/public feedback used in the QM of the programme	Doc 1: Contextual Information	Quality management staff	See recommendation 7 Patients and the public are involved of the delivery of the course, but the School has been unsuccessful in attempts to incorporate patient/public feedback into QM. We note this is challenging area nationally.
TD40, 49, 54	QM/QC covering all aspects of the assessment of students	Doc 2: Risk register	Assessment staff	Standard met There is a governance and scrutiny in place of assessment, and trends in assessment data are considered annually.
Domain 3: Equality, diversity and opportunity				
TD58	Explore what Equality and diversity training staff receive	For exploration on all visits Doc 1: Contextual Information	Faculty development staff	Standard met Staff receive mandatory training on equality and diversity on appointment.

		<p>Doc 5: Equality and diversity strategy</p> <p>Doc 14: Educational training requirements for probationary academic staff</p>		<p>There is currently no requirement to repeat this training after a number of years. Training is also provided on appointment to an admissions selection panel. This training must be refreshed every three years.</p>
TD59	<p>Management of equality and diversity issues, including making reasonable adjustments for students with disabilities</p>	<p>Doc 5: Equality and diversity strategy</p>	<p>Student support staff students</p>	<p>Standard met</p> <p>There is a procedure for making adjustments, and students confirmed this was in place and effective. Students considered that reasonable adjustments were handled well by the school.</p>
TD60	<p>Use of equality and diversity data to identify concerns</p>	<p>MSAR: Imperial College</p> <p>Doc 1: Contextual Information</p> <p>Doc 5: Equality and diversity strategy</p>	<p>School management staff</p>	<p>Standard not fully met (see recommendation 6)</p> <p>One-off analysis of equality and diversity data takes places, but there is no regular programme of analysis to identify and act on trends in the data. This activity is planned for 2013.</p>

TD63	Explore School's outreach projects for encouraging diversity within the student body (widening access)	Doc 1: Contextual Information Doc 5: Equality and diversity strategy	Admissions staff	Standard met There are a number of widening access projects across the School and the parent university. These appear to be positive but there could be more evidence about the impact of the projects.
Domain 4: student selection				
TD75, 49	Explore the use of lay observers on admissions panels	Doc 1: Contextual Information	Admissions staff	Standard met Lay observers can attend if they have a professional interest (e.g. careers advisors) but do not participate in admissions panels.
Domain 5: design and delivery of the curriculum, including assessment				
TD86, 87, 89, 90, 101	Explore previous visit requirements concerning: <ul style="list-style-type: none"> ▪ reduction in curriculum, ▪ format of assessment ▪ integration of social and 	GMC previous visit reports	Curriculum staff Students	see: <ul style="list-style-type: none"> ▪ Recommendation 1 (GEP) ▪ Requirement 2 ▪ Area of Improvement 1 Students on the 6 year

	behavioural sciences			<p>programme reported they received adequate time for consolidation in the early years of the programme. However, this was not the case for the graduate entry students.</p> <p>Assessment: see TD88 below</p> <p>The sociology and psychology courses have been amended in line with GMC requirements</p>
TD88, 89,103 112, 113	Implementation of assessment strategy, including examiner training, to ensure assessments are fit for purpose.	<p>Doc 9.1: assessment strategy</p> <p>Doc 9.2: Examination blueprint</p> <p>Doc 10: Statistical report on finals</p> <p>Doc 11: HOY 5 report</p>	Assessment staff	<p>See requirements 1 and 2</p> <p>An assessment strategy has been produced which addresses a number of issues. A timetable or project plan for implementation is required.</p>
TD87, 112,113	Guidance and feedback provided to students about assessment and fairness of assessment methods.	<p>GMC student survey</p> <p>Doc 1: Imperial Contextual Information</p> <p>Doc 9.1: assessment</p>	Assessment staff students	See TD 88 above

		strategy		
TD112	Teaching and assessment of outcomes concerning professionalism in the curriculum	Doc 11: HOY 5 report	Students Quality management staff Curriculum staff	Standard met (for ensuring that graduates have achieved outcomes of <i>TD09</i> . However, see TD88 above for requirements concerning schemes of assessment) Professional behaviours are monitored and assessed throughout the course.
TD85, 111	Explore the plans for the development of feedback to students on their performance	GMC student survey Doc 1: Imperial Contextual Information Doc 9.1: assessment strategy	Assessment staff students	See recommendation 2 Efforts by the School to improve feedback were recognised by some students, but many students considered that feedback was not detailed enough to help them improve.
TD84, 102	Explore the healthcare assistant project and the clinical quality improvement project (cited as possible good practice)	MSAR: Imperial College Doc 1: Imperial Contextual Information Doc 6.1: Faculty SIFT	Curriculum staff students	Standard met for 84 The healthcare assistant project has been trialled and demonstrated to be beneficial. It has not yet been implemented across the course. We note there is a

		<p>committee's review of the HCA scheme.</p> <p>Doc 6.2: Education Committee (Years 3, 5 & 6)'s review of the CQI scheme</p>		<p>dedicated multi-disciplinary unit in year 3.</p> <p>The clinical quality improvement project is now in place for all students in year 3.</p>
TD112	How the directly observed procedures work in practice (cited as possible good practice)	Doc 1: Imperial Contextual Information	<p>Curriculum staff</p> <p>Students</p> <p>Teachers and tutors</p> <p>Clinical teachers</p>	<p>Standard met (for ensuring that graduates have achieved outcomes of <i>TD09</i>. However, see TD88 above for requirements concerning schemes of assessment)</p> <p>The directly observed procedures are in place and generally working well. Clinical teachers at some sites considered more detail on the standards required for the procedures would be helpful, but students considered they provided good opportunities.</p>
TD100, 171	Explore opportunities for students learn through simulation technologies (cited as possible good practice)	Doc 1: Imperial Contextual Information	<p>Curriculum staff</p> <p>students</p>	<p>Standard met</p> <p>Students may receive a wide variety of useful simulation experience. However, this is</p>

				often dependent on site or department, and the structured programme of simulation experience in the core curriculum is more limited.
TD101	Integration of pathology and pharmacology in the curriculum	Doc 1: Imperial Contextual Information	Curriculum staff Students Imperial Graduates in F1	Standard met Pharmacology has been historically taught separately but some aspects are integrated into the rest of the curriculum. Specific teaching is given for prescribing in years 3 and 6.
TD103	Explore patient contact in the course and assessments	Doc 1: Imperial contextual document Doc 9.1: assessment strategy	Curriculum staff students	Standard met Patients are involved in the course, teaching and examinations from year 1 onward.
TD81, 82, 83,84, 87	Explore issues arising from the evaluation of the graduate entry programme	GMC evidence base/previous reports Doc 7.1c: GEP programme specification	School management staff Students	See recommendation 1 Our findings reflect the school's own evaluation of the programme. There is a very high workload in the first year of the course and lectures

				specific to the course did not always cover the learning outcomes. The School will take forward the findings of its own review.
TD109	How assistantships, professional work experience and the new year 6 will prepare students for their eventual responsibilities as an F1 doctor.	Doc 8.1 - 8.8: Professional Work Experience/GP Student Assistantship documentation	Curriculum staff students	See requirement 3 The year 6 course is structured to prepare students for practice, but it is possible that some learning objectives are not being fully delivered in the senior medicine/surgery placements (assistantships). The school must include these placements in its evaluation of the new year 6.
Domain 6: support and development of students, teachers and the local faculty				
TD128, 130, 148, 93, 100	Explore the use of and support for peer learning at the School	GMC evidence base/previous reports GMC student survey	Curriculum staff Assessment staff students	See recommendation 3 Training to teach is provided to all students in year 5 to support peer learning. There are also opportunities for students to participate in peer learning in year 4. However, some year 4 students had

				already participated in peer learning as teachers but had not received training.
TD128, 148	Investigate risks identified around staffing and retention of key staff, including training and development of trainers	Doc 2: School Risk register	Faculty development staff	Standard met School has identified need to start succession planning for key roles due for retirement. Turnover of staff was not identified as problematic. The programme of training and development for trainers meets standards but could be improved by providing a more structured programme of development for staff.
TD122, 127, 131, 135-6	Explore reasons for attrition and support provided to students in the early part of the programme	MSAR: Imperial College	Students Student support staff Assessment staff School management staff	See recommendation 6 School does not currently carry out routine analysis of progression and attrition data and cannot identify trends in this data. Analysis is planned for 2013. Student support services and academic support identified as good in the early part of the programme, and there are

				exit routes into other degrees and interviews for students who leave the programme.
TD122, 124, 130, 131	The student experience project and access to student support systems, including the personal tutor system	GMC student survey Doc 1: School contextual information Doc 2. School Risk register	Students Student support staff School management staff	Standard partially met See recommendation 5 Personal tutor system is working well in years 1-2 and has recently been extended to year 3. Students in years 4-6 report that the system is less effective in later years. Student support services and the Faculty education office are considered to be highly supportive.
Domain 7: Quality assurance, review and evaluation				
TD157, 41	Investigate effectiveness of agreements with providers in satisfying the requirements of TD09	Doc 1. School contextual information Doc 2. School risk register Doc 13.1-3: Agreements with providers	School management staff Quality management staff	Standard partially met See regional report The School's agreements are held by NHS London and the school has experienced problems enforcing the LDA. Proactive quality management has overcome some of these

				difficulties but the ability of the School to enforce the LDA remains problematic. The situation is common to some other London medical schools and will be dealt with in the regional report.
TD156-157	Management and allocation of students on placements	1. Imperial Contextual information	Quality management staff	Standard met See also: LEP report on Charing Cross Hospital Students are allocated systematically and placements are quality managed. We note continued variation in the quality of some placements.
TD151	Explore how the school is involved in preparation for LETBs	1. Imperial Contextual information	School management staff	n/a School has reserved position on the LETB board and Deputy Principal of the School is a member of the LETB board.
Domain 8: educational resources and capacity				
TD159, 160	Adequacy of facilities to deliver the curriculum	Doc 2: School Risk register	Teachers and tutors students	Standard met Some pressure on teaching

		Doc 14: Imperial Virtual Learning Environment		space identified, particularly for year 4 teaching, but no major challenges reported.
TD159, 162, 165	Explore reasons for the fluctuation in student numbers and impact on ability to deliver the curriculum	Doc 2: School Risk register	School management staff Admissions staff	Standard met One cohort is larger than expected as predicted acceptance of offers did not match actual acceptance of offers. This cohort is being managed adequately.
TD159, 162	Identify any risks to resources arising from the faculty of medicine becoming responsible for the Basic Medical Science course.	Doc 2: School Risk register	School management staff	Standard met The School is taking on responsibility for the management of a basic medical science course. No issues were identified arising from this.
TD162, 164	Impact of the Singapore collaboration on the ability to deliver the course.	Doc 1. School Contextual information	School management staff	Standard met The School confirmed that the Singapore project had not negatively impacted on the ability to deliver the UK course. The School identified areas where the collaboration had been helpful, particularly

				with regard to the development of e-learning materials.
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Appendix 2: Document register

Document number	Document name	Description	Publication date and version	Source
-	Imperial MSAR 2011	2011 Annual data return from Imperial college faculty of medicine to the GMC	January 2012	http://www.gmc-uk.org/education/5194.asp
-	GMC student survey results	Results of the GMC survey of Imperial College medical students in April 2012	June 2012	GMC (unpublished)
-	GMC previous visit reports	reports of previous GMC visits	1. December 2008 2. 2010	http://www.gmc-uk.org/education/5194.asp
Doc 1	Imperial Contextual Information			Imperial college
	Organogram	Contained in the Quality Management Strategy (Doc 3)		Imperial college
Doc 2	Educational Risk Register		2011-12.	Imperial college
Doc 3	Quality Management Strategy		2011-12.	Imperial college

Doc 4.1	Minutes - Northwick Park GEMV 24.04.10	The two most recent quality management reports and associated action plans for Northwick Park Hospital	April 2010	Imperial college
Doc 4.2	Minutes - Northwick Park GEMV 08.04.11		April 2011	Imperial college
Doc 4.3	Minutes - CX GEMV 18-03-11	The two most recent quality management reports and associated action plans for Charing Cross Hospital	March 2011	Imperial college
Doc 4.4	GEMV-ICHT-2012-Report		May 2012	Imperial college
Doc 5	Equality and Diversity	Information about Imperial's equality and diversity policies.	Various	Imperial college
Doc 6.1	Health Care Assistant Scheme	Faculty SIFT committee's review of the HCA scheme. The scheme is now being considered in the wider remit of the early years review	November 2011	Imperial college

Doc 6.2	Clinical Quality Improvement Scheme	Education Committee (Years 3, 5 & 6)'s review of the CQI scheme. The scheme has been rolled out to all Year 3 students.	May 2011	Imperial college
Doc 7.1	Curriculum Overview	Overview of the structure of the Imperial curriculum		Imperial college
Doc 7.1a	Appendix 1 Course Map 12-13	A map of all years of the course.	May 2012	Imperial college
Doc 7.1b	Appendix 2 MBBS/BSc Programme Specification		November 2011	Imperial college
Doc 7.1c	Appendix 3 Graduate Entry Programme Specification		November 2011	Imperial college
Doc 7.1d	Full Curriculum Map	Amalgamated Learning Outcomes for Years 3, 5 and 6, mapped to Tomorrow's Doctors (2009)	Updated May 2012.	Imperial college
Doc 7.1e	BSc Learning Outcomes	Amalgamated BSc pathway learning outcomes.		Imperial college

Docs 8.1-8.3	GPSA Guide GPSA Learning Outcomes GPSA Assessment Forms	GP Student Assistantship documentation		Imperial college
Docs 8.4-8.8	PWE guidelines PWE Learning Objectives PWE Assessment Form PWE Acute Case Guidelines PWE Case Report Form	Professional Work Experience documentation		Imperial college
Doc 9.1	FoM Assessment Strategy		Produced 2011-12 following external review	Imperial college
Doc 9.2	2011-12 Examination Blueprint	Amalgamated blueprints.	Produced throughout 2011-12	Imperial college
Doc 10	Finals statistical analysis 2011 & 2012		Produced summer 2012	Imperial college
Doc 11	Head of Year Reports 2011-12		Produced summer 2012	Imperial college

	Calendar	Please see Doc 7.1, which gives all the key dates for 2012-13. Exam and board dates are in the process of being set and will be submitted when available.	May 2012	Imperial college
Doc 13.1	LDA 31 May 2012	Learning Development Agreement with Acute and Mental Health Trusts	May 2012	Imperial college
Doc 13.2	GP SIFT Contract Schedule 201213	Agreement with teaching General Practices	July 2012	Imperial college
Doc 13.3	Imperial College letter of agreement	Agreement with non-contract Trusts	July 2011	Imperial college
Doc 14	Intranet Blackboard Access	Information on how to access the teaching intranet and Blackboard		Imperial college

Doc 15	Educational training requirements for probationary academic staff in the Faculty of Medicine	Document referred to in Question 5 of the Contextual Information		Imperial college
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Appendix 3: Abbreviations

AQV	annual quality visit
E&D	equality and diversity
F1	foundation year 1
GMC	General Medical Council
GP	general practice/practitioner
IPL	inter-professional learning
LEP	local education provider
MSAR	Medical School Annual Return
MB BS	Bachelor of Medicine and Surgery
NHS	National Health Service
NSS	National Student Survey
NWTFS	North West Thames Foundation School
OSCE	objective structured clinical examination*
PACES	practical assessment of clinical examination skills*
PMQ	primary medical qualification
QABME	Quality Assurance of Basic Medical Education
QIF	<i>Quality Improvement Framework</i>
QAA	Quality Assurance Agency
SHA	strategic health authority
SIFT	service increment for teaching
SLA	service level agreement
SPA	supporting professional activities
SOLE	student on-line evaluation
SSLG	staff student liaison group
UKFPO	UK Foundation Programme Office

***See glossary (in appendix 4) for definition.**

Appendix 4: Glossary

- OSCE** A type of examination to test clinical skill performance and competence in skills such as communication, clinical examination, medical procedures or prescription, exercise prescription, joint mobilisation or manipulation techniques, radiographic positioning, radiographic image evaluation and interpretation of results.
- PACES** A type of examination to test clinical skills performance and competence in a number of areas. PACES is one of the membership exams of the Royal College of Physicians, and Imperial College Faculty of Medicine uses an adapted version of this exam, which is similar to an OSCE. The Royal College of Physicians states that:
- The PACES examination consists of five clinical stations, each assessed by two independent examiners. Candidates will start at any one of the five stations, and then move round the carousel of stations, at 20 minute intervals (Figure 1), until they have completed the cycle.