Reaccreditation of a Master of Pharmacy degree course (MPharm)

King's College London

Report of a reaccreditation event, 9-11 April 2014

Introduction

The General Pharmaceutical Council (GPhC) is the statutory regulator for pharmacists and pharmacy technicians and is the accrediting body for pharmacy education in Great Britain. The GPhC is responsible for setting standards and approving education and training courses which form part of the pathway towards registration for pharmacists. The UK qualification required as part of the pathway to registration as a pharmacist is a GPhC-accredited Master of Pharmacy degree course (MPharm). The GPhC's right to check the standards of pharmacy qualifications leading to annotation and registration as a pharmacist is the *Pharmacy Order* 2010. It requires the GPhC to 'approve' courses by appointing 'visitors' (accreditors) to report to the GPhC's Council on the 'nature, content and quality' of education as well as 'any other matters' the Council may require.

This reaccreditation event was carried out in accordance with the GPhC's 2011 MPharm Accreditation Methodology and the course was reviewed against the GPhC's 2011 education standards 'Future Pharmacists: Standards for the initial education and training of pharmacists'.

Background

The MPharm at KCL is delivered by the Department of Pharmacy which is currently within the School of Biomedical Sciences. From August 2014, the structure of King's College will change, so that the Department of Pharmacy will reside within the newly created Faculty of Life Sciences and Medicine which will be responsible for delivering professionally-accredited health care programmes in Nutrition & Dietetics, Medicine, Pharmacy and Physiotherapy. The MPharm was last accredited in 2009 by the Royal Pharmaceutical Society of Great Britain, the accrediting body at that time. On that occasion, the course was reaccredited for a full period of 5 years, subject to two conditions:

i.   The marking criteria in the *Pharmacy Undergraduate Information Booklet* for Levels 4 and 5 (Years 1 & 2), which included reference to 'repeated evidence of flawed thinking' at 45-49%, a pass band, should be removed. This condition was because the most important function of accreditation is to ensure that the

MPharm pass threshold is secure and appropriate for a course leading to professional training and registration. Moreover, the team was told that the published criteria are not actually used. The team agreed that future student booklets should contain the criteria that are used.

ii. The Department should enter into a dialogue with the School and College about the resourcing requirements of the unusually large first year cohort; the Society should be informed of the outcome of the dialogue.

Satisfactory evidence was subsequently provided to meet these conditions.

A reaccreditation event was scheduled for April 2014; the outcome of this event is detailed within this report.

Documentation

The provider submitted submission documentation to the GPhC in line with agreed timescales and a pre-visit took place at King's College London on 11 March 2014. During the pre-visit the schedule of meetings and timings for the reaccreditation event were confirmed.

The event

The event began with a private meeting of the accreditation team and GPhC representatives on 9 April 2014. The remainder of the event took place on site at the King's College London on 10-11 April 2014 and comprised a series of meetings with staff and students of the University and included a tour of the University facilities.

Accreditation team

The GPhC's accreditation team ('the team') comprised:

Name	Designation at the time of accreditation event
Dr Andrew Husband	Team leader, Dean of Pharmacy, Durham University
Mrs Sandra Hall	Team member (Academic), Head of Pharmacy Practice, Leicester School of Pharmacy, De Montfort University
Professor Brenda Costall	Team member (Academic), Professor of Neuropharmacology, former Head of School of Pharmacy, University of Bradford
Dr Adam Todd	Team member (Academic), Lecturer in Pharmacy Practice, Durham University
Professor Bill Dawson	(Team member (Pharmacist) Director, Bionet Ltd
Mrs Gail Curphey	Team member (Pharmacist), Pharmacy consultant
Ms Samantha Hayman	Team member, (Recently Registered Pharmacist) Band 6 Rotational Pharmacist
Ms Dorothy Whittington	Team member (Lay member), Emeritus Professor of Health Psychology, University of Ulster and Non-executive Director, Northern Health and Social Care Trust (Northern Ireland)

along with:

Name	Designation at the time of visit
Ms Joanne Martin *	Quality Assurance Manager (Education), General Pharmaceutical Council
Professor Brian Furman	Rapporteur, Emeritus Professor of Pharmacology, University of Strathclyde
Mr Shahzad Ahmad	Observer –(new accreditation team member) Pharmacist
Ms Lou-Anne Madrigal	Observer (attending day 3) Quality Assurance Administrator, General Pharmaceutical Council
Ms Naomi Morgan	Observer (attending day 2) Quality Assurance Administrator, General Pharmaceutical Council

*attended pre-visit meeting on 11 March 2014

Declaration of potential conflicts of interest

Professor Dawson is a non-executive director of a company based at King's College London and also provided advice to the School of Pharmacy around 10 years ago. Professor Whittington had long-standing links with King's College London before 2010, but not directly with the School of Pharmacy. The team agreed that these did not constitute conflicts of interest in the context of reaccreditation of the MPharm programme.

Meeting the accreditation standards

	Accreditation team's commentary
Standard 1 – Patient and public safety There must be clear procedures to address concerns about patient safety arising from initial pharmacy education and training. Concerns must be addressed immediately.	The documentation described how students are introduced to working in a professional context, both generically at the School level and specifically in relation to pharmacy; this includes introduction to fitness to practise and Codes of Conduct. The systems in place to ensure that students do not jeopardise patient safety include requirements for Disclosure Barring Service (DBS) and health checks, annual student declarations of compliance with the GPhC Code of Conduct for Pharmacy Students, close liaison with placement providers the requirement to pass professional modules and automatic fails when performance is deemed to cause patient harm. Students adhere to professional behaviour even in simulated environments and working within the limits of their capabilities is emphasised throughout. Students are expected to reflect on incidents that might impact on patient safety; causes for concern are reported and discussed with appropriate members of staff. The support available to students for health, conduct and academic issues was described in the documentation. **The team was satisfied that this standard was met.**
Standard 2 – Monitoring, review	The departmental mechanisms for oversight of the MPharm comprise the MPharm Committee, which is chaired by the Director of the Programme and reports to the Pharmacy Management Group; this group oversees the management and

and evaluation of initial education and training The quality of pharmacy education and training must be monitored, reviewed and evaluated in a systematic way.	coordination of the undergraduate MPharm programme. The day to day running of the programme is through module teams and their leaders, as well as members of staff with responsibility for each year of the course. Currently, the Pharmacy Management Group reports to the School of Biomedical Sciences Education Committee, which reports to the School of Biomedical Sciences Management Board. From August 2014, the Department of Pharmacy will be part of the new Faculty of Life Sciences and Medicine, with delivery of education overseen by the Dean of Bioscience Education. The team was reassured that the identity of Pharmacy within the new Faculty will be retained and that the budget will continue and the traditionally high number of pharmacists on the staff will be maintained. There was no anxiety on the part of the pharmacy staff, who had been consulted about the new Faculty structure; the structure will not make any difference on the ground. The quality of teaching, learning and assessment on the MPharm is evaluated through several means; these include external examiners' reports, performance in the GPhC registration examination, results from the National Student Survey, consultation with stakeholders (including patients, pharmacists, student groups and recent alumni), as well as regular internal review. The MPharm Programme Director submits an annual report to the School Teaching Committee; this includes analysis of feedback from students on the content, teaching quality, assessments, clinical placements and infrastructure and is based on online questionnaires and information gathered through the Staff-Student Liaison Committee. In relation to the quality of placements, all hospital sites are accredited formally under the Joint Programmes Board (JPB) arrangement to deliver postgraduate, workplace based education for pharmacists; student feedback on placements is monitored. The documentation stated that in view of the expansion of placement experience in the new programme, the quality assurance systems will develop to embrace the community sector, and will be closely monitored through the Placements Review & Monitoring Group. The Department has designed a programme to support placement supervisors in supervising pharmacy undergraduate students in both community and hospital sectors. **The team was satisfied that this standard was met.**
Standard 3 – Equality, diversity and opportunity Initial pharmacy education and training must be based on principles of equality, diversity and fairness. It must meet the requirements of all relevant legislation.	Details of the KCL policies on equality and diversity were presented in the documentation and are available at http://www.kcl.ac.uk/aboutkings/governance/equality/index.aspx. The documentation also described the central collection of equality monitoring data and the dissemination of results to the School, as well as the measures taken by the department to ensure that the MPharm programme is inclusive to all students. King's College London is a recipient of bronze status in Athena Swan. The Institute of Pharmaceutical Science, together with a number of other research divisions, will apply for silver status in November 2014. The Equality and Diversity training available for all staff members was described in the documentation, along with the specific training for members of staff involved in interviewing potential students. Students are introduced to the concept of Equality and Diversity through the GPhC Code of Conduct for Pharmacy Students and first and final year students obtain cultural awareness training and are required to provide a reflective account of these sessions as a CPD task. **The team was satisfied that this standard was met.**

| Standard 4 – Selection of students and trainees

Selection processes must be open, fair and comply with relevant legislation. Processes must ensure students and trainees are fit to practise at the point of selection. Selection includes recruitment and admissions. | The administrative arrangements for the admissions process were described in the documentation; this process is centralised through the Health Schools Admissions Centre with a dedicated Programme Officer for Pharmacy applications. Within the Department of Pharmacy there is an Admissions Tutor and an MPharm Admissions Group which reports to the MPharm Committee. Information relating to KCL, as well as MPharm course-related information, such as entry requirements, how to apply, course structure and teaching facilities, is made available through various websites. The admissions process includes an OSCE-type skills assessment and a group interview session to assess teamwork and communication skills. The processes to ensure the fair application of selection criteria were described in the documentation. All applicants are treated fairly, following standardised procedures in line with the College Statement on Equality and Diversity The processes include the training of all members of staff in equality and diversity and in cultural awareness. Interview criteria and OSCE tasks used in admissions have set marking schemes. Student selection is based on academic performance, performance at interview and in the OSCE-type assessment, as well as their personal statements and references.

The team was satisfied that this standard was met. |
|---|---|
| **Standard 5 – Curriculum delivery**

The curriculum for MPharm degrees and the pre-registration scheme must deliver the outcomes in Standard 10. Most importantly, curricula must ensure students and trainees practise safely and effectively. | The documentation described a new programme, to commence in September 2014, and detailed how this programme integrates science with practice, how science informs clinical decision making and how the chemical, physical and biological sciences themselves are integrated. Essential biochemical, pharmacological and biopharmacy material covered in year 1 provide the foundation for the integrated therapeutic modules taught within years 2 and 3 of the programme. These therapeutic modules are arranged so that the basic science underpins issues relating to diagnosis and the clinical and legal use of medicines. Each module covers certain professional aspects associated with the work of a pharmacist, including medicines adherence, physical assessment as well as the legal and ethical issues of providing medicines and advice. In addition to the research project, the final year includes two modules in which students build on their understanding of areas of pharmaceutical science and clinical care to deal with more complex issues, and understand the interplay between uncertainty, probability and judgement in solving problems. The programme balances direct student contact, directed student learning and student self-directed effort, providing opportunities for acquisition and application of knowledge and development of skills across a range of tasks, while promoting reflection to support self-directed, independent learning. Students obtain practical experience of working with patients, carers and other healthcare professionals through engagement with simulated patients, seminars, workshops, inter-professional learning activities with students of, for example, medicine, nursing and physiotherapy. There is a programme of placement activities in hospital and community practice settings across the four years of the programme. These activities increase through the four years of the course, allowing students progressively to develop their clinical skills. The assessments are designed to test the outcomes in standard 10, and the specific assessment of professional skills, with an emphasis on patient safety, is undertaken through separate, non-credit bearing modules.

King's College London is a member of King's Health Partners (KHP), which is one of five Academic Health Science centres |

within England, and comprises King's College London, and three major NHS Foundation Trusts, namely Guy's and St Thomas', King's College Hospital and South London and Maudsley in a partnership with 31,000 staff and an annual turnover of £2.8b. Within KHP, the Pharmaceutical Sciences Clinical Academic Group (CAG), which is one of 21 CAGs, provides the professional and academic environment for the MPharm programme, allowing the Department of Pharmacy to draw on the expertise of clinicians, as well as industry. This has led to the engagement of pharmacists from across King's Health Partners in the delivery of many aspects of the course, ranging from specialist lectures through to their facilitation of small group workshops and supervision of students on placements. Professionalism is emphasised throughout the programme; this includes engagement in continuing professional development and how to use evidence to support any claim of competence in students' personal portfolios. There is a strong research environment in both the College and the Department and the majority of staff members contribute to both teaching and research activities, with all staff being expected to keep abreast of developments in their area of specialisation. Teaching areas are also reviewed in light of specialisation changes and developments, to ensure that the teaching is informed by research.

The team was confident that this standard will be met.

Standard 6 – Support and development for students and trainees Students and trainees must be supported to develop as learners and professionals during their initial education and training.	The support mechanisms for students were described in the documentation and discussed during the event. At induction, students are assigned to a personal tutor who is the first point of contact for pastoral or academic issues and who is trained to refer students to relevant members of academic staff or to the extensive specialist advice and support available within the College where required; students are expected to meet their personal tutors and there are tasks, including the students' Personal and Professional Development Portfolios, to be discussed with tutors in all four years of the programme. Academic support is also available directly from relevant members of academic staff and the students operate a 'buddy' system, whereby a student is paired with a student in a higher year to provide further support. Students are additionally supported in their final year projects by their supervisors. Careers support is provided centrally and at the Departmental level. **The team was satisfied that this standard was met.**
Standard 7 – Support and development for academic staff and pre-registration tutors Anyone delivering initial education and training should be supported to develop in their professional roles.	The staff development and training procedures used by King's College London were described in the documentation. These included the role of the College's dedicated King's Learning Institute (KLI), which runs the Postgraduate Certificate in Academic Practice in Higher Education (PGCAPHE); all new members of academic staff must take this certificate, unless they have previously followed such a programme at another institution. There is an induction programme provided by King's College London for new members of staff, as well as the local Departmental induction procedure. The mechanisms for induction and support of non-pharmacist members of academic staff were also explained in the documentation. These include ensuring that each academic team responsible for the MPharm programme contains a member of the clinical pharmacy practice teaching section; these are staff members currently working in the clinical arena who are responsible for ensuring that teaching is informed by current practice. Non-pharmacy academic staff members have the opportunity to visit

	hospital pharmacies to obtain an overview of current pharmaceutical care and hear about the challenges of medicines development, supply and use in the NHS. They may also visit specialist areas such as elderly care, critical care and sterile production, where appropriate. The documentation also included a resource produced by the Department providing an overview of teaching methods and content to support non-pharmacy academic staff in understanding the clinical aspects of the curriculum. All staff members are managed by the Head of Department, with day-to-day management by year leaders and teaching section leaders, as appropriate. Teaching workload and development needs are discussed during the annual staff appraisals, which also apply to part-time staff. In addition to support through line management at the research and teaching levels, support of teaching is achieved through peer pairing and observation of teaching, which is part of a School wide peer support system. Mentoring is provided for newly appointed staff and there is a College mentoring support system to monitor discussions and recommendations. Teaching loads ensure that adequate time is provided for a range of personal development activities, including time for learning. All members of academic staff are expected to augment their teaching through other activities, including research, and through continuing professional development. **The team was satisfied that this standard was met.**
Standard 8 – Management of initial education and training Education and training must be planned and maintained through transparent processes which must show who is responsible for what at each stage	A description of the overall structures relating to the management of education within the Department was provided with the documentation and confirmed during meetings with staff. The management and delivery of teaching programmes is organised at Departmental level but the School is responsible to the College through the Education Committee of the Academic Board for ensuring that academic and regulatory requirements are met. At Departmental level, the MPharm Committee, chaired by the MPharm Programme Director and reporting to the Pharmacy Management Group, is responsible for the MPharm degree programme. The MPharm Programme Director is supported by the four year leaders, who are, in turn, supported by specific module leaders working within module teams. Within each year of the programme, the module team member from the Clinical Pharmacy Practice Section liaises across modules to co-ordinate the teaching contribution of clinical pharmacists from King's Health Partners, with the Placements Monitoring & Review Group being responsible for all issues relating to placements. **The team was satisfied that this standard was met.**
Standard 9- Resources and capacity Resources and capacity are sufficient to deliver outcomes.	The mechanisms for securing resources for delivering the MPharm degree through the College's annual business planning cycle, starting with a business meeting between the School and the Principal's Central Team, were outlined in the documentation. Budget setting takes into account the School's performance during the previous year and its future plans, taking on board Divisional/Departmental priorities. The Department of Pharmacy, with its MPharm and the related postgraduate provision, is central to the new Faculty's plan. The growth in clinical placement activity means that there is a

	planned increase in the academic and administrative staffing to coordinate these placements. The Department benefits from a high proportion of staff (about 45%) who are registrants of the GPhC; these include members of staff not only in pharmacy practice but also others whose teaching expertise is in pharmaceutics or pharmaceutical chemistry. Thus, there are sufficient pharmacists to provide pharmacy tuition and professional mentoring, as well as acting as mentors to non-pharmacist colleagues, this being boosted further by access to the additional pool of GPhC registrants within the associated Trusts. Most of the pharmacy teaching takes place in the Franklin-Wilkins Building, on the Waterloo campus. This building contains library, computing and social facilities, together with classrooms, lecture theatres, teaching and research laboratories and specialist facilities such as the Dispensary Studio. The Dispensary Studio has been recently upgraded with the provision of consulting rooms and improved appearance and ambience, but it is planned to reconfigure the whole area, with the creation of an enhanced clinical skills centre, which will provide a multi-professional footprint for training in medicines optimisation. The team was given more information about the proposed Medicines Optimisation Skills Centre, which was to be completed over the summer of 2014. The team looked forward to seeing this facility during the three year practice visit. The library resources, including its budget for periodicals and databases, as well as the central and Departmental IT resources were detailed in the documentation. The library was refurbished in 2011 and is co-located with the student support centre. It houses a large selection of relevant journals, most of which are electronic, as well as pharmacy-specific reference sources. Within the library, there are study rooms that students can book for various small group activities, such as practising presentations. There are generous opening hours and, when library staff are not present, there are self-service facilities for borrowing books. **The team was satisfied that this standard was met.**
Standard 10 - Outcomes	The team scrutinised the learning outcomes by discussions with the teaching staff in two parallel subgroup sessions exploring integration and outcomes. Rather than examining each of the 58 outcomes in these sessions, a selection of nine outcomes was chosen for detailed discussion. The University staff members were unaware of the outcomes to be discussed before the meeting. For each of the outcomes scrutinised in detail, the evidence provided by the discussions with the staff, along with other evidence provided with the documentation, gave the teams confidence that these outcomes would be met at the required level. As this selection represented approximately 16% of the total outcomes, the team was confident that all other outcomes would be similarly met. This view was supported by the documented material for each of the other outcomes, which had also been scrutinised by the team. **The team was confident that this standard will be met.**

Indicative Syllabus	The team was content with the School's use of the Indicative Syllabus to inform its curriculum.
	The team agreed that the MPharm degree met the requirements of Directive 2005/36/EC of the European Parliament and of the Council on the recognition of professional qualifications for the initial education and training of pharmacists.

Summary and conclusions

The accreditation team agreed to recommend to the Registrar of the General Pharmaceutical Council that King's College London should be reaccredited to provide an MPharm degree for a further period of six years, with a practice visit to take place in three years. There were no conditions or recommendations.

Standing condition of accreditation:

These are the conditions which will apply in all circumstances of degree accreditation:

1. The school or department of pharmacy always seeks approval from the General Pharmaceutical Council for curriculum amendments and always at least informs the General Pharmaceutical Council of significant changes to pharmacy undergraduate student numbers or resources for their teaching, learning support and assessment, including any change from internal to teaching, learning and assessment from outside the school or department;
2. The school or department of pharmacy produces and submits to the General Pharmaceutical Council annually requested data on student numbers and progression and degree awards;
3. The school or department of pharmacy produces and submits to the General Pharmaceutical Council annually requested information about the extent of human and physical resources it enjoys for the delivery and support of the degree course;
4. The school or department of pharmacy or the university makes students and potential students aware of the existence and Internet address where they can view the General Pharmaceutical Council's summary reports of degree accreditation exercises, main after- actions therefrom and of the timetable for future accreditation exercises.

The *Pharmacy Order* 2010 states:
Part 5 Education, training and acquisition of experience and continuing professional development, Information to be given by institutions or other providers, 46. ...
  (3) Whenever required to do so by the Council, any institution or other provider to which this article applies must give to the Council such information and assistance as the Council may reasonably require in connection with the exercise of its functions under this Order.

  (4) Where an institution or other provider refuses any reasonable request for information made by the Council under this article, the Council may, in accordance with article 47 ('Refusal or withdrawal of approval of courses, qualifications and institutions'), refuse to approve or withdraw approval from, any course of education or training, qualification, test or institution or other provider to which the information relates.

It is a requirement of accreditation that institutions or other providers provide the GPhC proactively and in a timely manner with any information which is, or has the potential to be, material to the delivery of an accredited course. This includes, but is not limited to: changes in staffing, changes in funding, and/or substantial changes in curriculum or delivery.

Reference: http://www.legislation.gov.uk/uksi/2010/231/contents/made

Caution: Preregistration and employment as a pharmacist:

- In respect of all students, successful completion of an accredited course in not a guarantee of a placement for a pre-registration year or of future employment as a pharmacist.

Following the above reaccreditation event, the Registrar of the General Pharmaceutical Council agreed with the accreditation team's recommendation and approved King's College London MPharm degree for reaccreditation a further period of 6 years. Reaccreditation will take place in six academic years' time; with an interim visit in three academic years' time (2016/17).

Appendix 1 – Standards for the initial education and training of pharmacists

<mark>[Note: The parts of the standards shown in grey italics are applicable only to those offering a 5-year MPharm degree with integrated periods of pre-registration training.]</mark>

Standard 1 – Patient and public safety

1. **There must be clear procedures to address concerns about patient safety arising from pharmacy education and training. Concerns must be addressed immediately.**

1.1. There must be effective systems in place to ensure that students *and trainees*:

    1.1.a   do not jeopardise patient safety;

    1.1.b   only do tasks for which they are competent, sometimes under supervision;

    1.1.c   are monitored and assessed to ensure they always practise safely. Causes for concern should be addressed immediately;

    1.1.d   have access to support for health, conduct and academic issues;

    1.1.e   must not be awarded an accredited degree *or pass pre-registration training* if they might pose a risk to patients or the public;

    1.1.f   understand what is and what is not professional behaviour and are familiar with the GPhC's *Code of Conduct for Pharmacy Students* (2010)*Standards of conduct, ethics and performance* (2010);

    1.1.g   understand what fitness to practise mechanisms apply to them. All schools of pharmacy must have fitness to practise procedures to deal with student causes for concern;

    1.1.h   undergo required health and good character checks;

    1.1.i   understand that it is an offence to impersonate a pharmacist. Pharmacists are registrants of the GPhC.

Standard 2 – Monitoring, review and evaluation of initial education and training

2. The quality of pharmacy education and training must be monitored, reviewed and evaluated in a systematic and developmental way.

2.1 There must be systems and policies in place covering :
    2.1.a   information about roles & responsibilities and lines of accountability;
    2.1.b   university information on:
        2.1.b.i   entry requirements;
        2.1.b.ii   the quality of teaching, learning and assessment;
        2.1.b.iii   the quality of placements and other practice learning opportunities;
        2.1.b.iv   appraisal and feedback systems for students and trainees;
        2.1.b.v   supervision requirements;
        2.1.b.vi   educational resources and capacity;
        These must be monitored, reviewed and evaluated systematically. When an issue is identified it must be documented and dealt with promptly;

    2.1.c   *pre-registration tutors evaluating trainees. To do this, tutors must have access to reliable evidence about a trainee's performance. Tutors must be competent to assess the performance of trainees;*

    2.1.d   *the quality and development of pre-registration tutors.*

Standard 3 – Equality, diversity and fairness

3. Initial pharmacy education and training must be based on principles of equality, diversity and fairness. It must meet the requirements of all relevant legislation.

3.1 systems and policies for capturing equality and diversity data. Concerns should be documented, addressed and disseminated;

3.2 strategies for staff training in equality and diversity

Standard 4 – Selection of students *and trainees*

4. Selection processes must be open, fair and comply with relevant legislation. Processes must ensure students *and trainees* **are fit to practise at the point of selection. Selection includes recruitment and admissions.**

4.1   Selection process must give applicants the information they need to make an informed application.

4.2   Selection criteria must be explicit. They should include:
  4.2.a   meeting academic and professional entry requirements;
  4.2.b   meeting English language requirements appropriate to MPharm degree study. Guidelines issued by English language testing bodies should be followed to ensure that admissions language requirements are appropriate;
  4.2.c   meeting numeracy requirements;
  4.2.d   taking account of good character checks, such as Criminal Records Bureau (CRB)/Disclosure Scotland checks;
  4.2.e   passing health checks (subject to reasonable adjustments being made). Health checks could include self-evaluations and/or evaluations by healthcare professionals;
  4.2.f   recognising prior learning, where that is appropriate

4.3   Selectors should apply selection criteria fairly. They should be trained to do this. Training should include equality and diversity matters

Standard 5 – Curriculum delivery and the student experience

5. The curriculum for MPharm degrees *and the pre-registration scheme* **must deliver the outcomes in Standard 10. Most importantly, curricula must ensure students** *and trainees* **practise safely and effectively**. **To ensure this, pass criteria must describe safe and effective practice.**

5.1   Curricula must be integrated.

5.2   Curricula must be progressive, dealing with issues in an increasing more complex way until the right level of understanding is reached.

5.3   An MPharm must be delivered in an environment which places study in a professional and academic context and requires students to conduct themselves professionally. *Pre-registration training must be delivered in a professional environment which requires trainees to conduct themselves professionally.*

5.4   An MPharm must be delivered in an environment informed by research. This means that whether or not all staff are engaged in research, their teaching must be informed by research.

5.5 An MPharm degree teaching and learning strategy must set out how students will achieve the outcomes in Standard 10. Learning opportunities must be structured to provide:

    5.5.a   an integrated experience of relevant science and pharmacy practice;

    5.5.b   a balance of theory and practice;

    5.5.c   independent learning skills.

5.6 The MPharm degree curriculum must include practical experience of working with patients, carers and other healthcare professionals. Practical experience should increase year on year.

5.7 There must be a clear assessment strategy for the MPharm degree. Assessment methods must measure the outcomes in Standard 10.

5.8 The MPharm degree assessment strategy should include:

    5.8.a   diagnostic assessments;

    5.8.b   formative assessments;

    5.8.c   summative assessments;

    5.8.d   timely feedback.

5.9 Academic regulations must be appropriate for a degree that is both academic and professional and may lead to further professional training. As a general principle, all assessments must be passed. This means that condonation, compensation, trailing, extended re-sit opportunities and other remedial measures should be extremely limited, if they are permitted at all. MPharm degree academic regulations may be more stringent than university norms. This may include higher than usual pass marks for assessments demonstrating knowledge and skills essential to safe and effective pharmacy practice.

5.10 Marking criteria must be used for all assessments and all pass criteria must reflect safe and effective practice.

5.11 Patient safety must be paramount in assessments: any evidence of an assessment demonstrating unsafe practise must result in failure.

5.12 A pre-registration training plan must describe how the learning outcomes for pre-registration will be delivered.

5.13 A pre-registration training plan must describe all assessments, including tutor evaluations and tutor sign-offs.

Standard 6 – Support and development for students *and trainees*

6. Students *and trainees* **must be supported to develop as learners and professionals during their initial education and training.**

6.1. A range of mechanisms must be in place to support students *and trainees* to develop as learners and professionals.

Standard 7 – Support and development for academic staff *and pre-registration tutors*

7. Anyone delivering initial education and training should be supported to develop in their professional roles.

7.1. There must be a range of mechanisms in place to support anyone delivering initial education and training to develop in their role.

7.2. Induction programmes are provided *for tutors* and university staff as appropriate. This should include induction programmes for non-pharmacists working on MPharm degrees.

7.3. Everyone involved in delivering the curriculum should have:
    7.3.a   effective supervision;
    7.3.b   an appropriate and realistic workload;
    7.3.c   effective personal support;
    7.3.d   mentoring;
    7.3.e   time to learn;
    7.3.f   continuing professional development opportunities.

7.4. *Tutors have an identified source of peer support.*

Standard 8 – Management of initial education and training

8. Initial pharmacist education and training must be planned and maintained through transparent processes which must show who is responsible for what at each stage

8.1. All education and training will be supported by a defined management plan with:
    8.1.a   a schedule of responsibilities

8.1.b	defined structures and processes to manage the delivery of education and training

Standard 9 – Resources and capacity

9. Resources and capacity are sufficient to deliver outcomes.

9.1 There must be:

9.1.a robust and transparent mechanisms for securing an appropriate level of resource for delivering an accreditable MPharm degree;

9.1.b sufficient staff from relevant disciplines to deliver the curriculum to students *and trainees*. Staff must be appropriately qualified and experienced. The staffing profile must include:

9.1.b.i sufficient numbers of pharmacists – registrants of the GPhC – with experience of teaching in higher education to ensure that an MPharm degree can produce students equipped to enter pharmacist pre-registration training in Great Britain.

9.1.b.ii sufficient numbers of pharmacists to act as tutors and professional mentors at university *and in pre-registration.* Not all personal tutors must be pharmacists.

9.1.b.iii pharmacists who are leaders in the profession and in their university, who can influence university policy relevant to pharmacy

9.1.b.iv non-pharmacist academics who can influence school and university policy relevant to pharmacy

9.1.b.v staff who are sufficiently experienced to supervise research. It would be unusual for anyone to supervise research at a particular level unless they had researched to that level or beyond. New research supervisors must be mentored and signed off as being fit to supervise after a period of mentoring

9.1.b.vi science academics who understand the relevance of their discipline to pharmacy and deliver their area of expertise in a pharmaceutical context

9.1.b.vii academic pharmacists and other experienced MPharm degree staff who are able to act as mentors to non-pharmacist colleagues

9.1.c pre-registration tutors who meet the GPhC's standards for pre-registration tutors.

9.1.d career pathways in universities for all staff teaching on MPharm degrees, including pathways for practice staff

9.1.e clear lines of authority and responsibility for the strategic organisation and day-to-day management of placements

9.1.f training and ongoing support for all non-pharmacists involved in the delivery of MPharm degrees which must help them understand:

9.1.f.i help and understand the relevance of their work to pharmacy

9.1.f.ii how to deliver their area of expertise in a pharmaceutical context

9.1.g appropriate learning resources

9.1.h accommodation and facilities that are fit for purpose

9.1.i pre-registration premises which meet the GPhC's standards for pre-registration premises

Standard 10 - Outcomes

10.1 Expectations of a pharmacy professional

Learning outcome	MPharm	*Pre-reg*
10.1.a Recognise ethical dilemmas & respond in accordance with relevant codes of conduct and behaviour	**Shows how**	*Does*
10.1.b Recognise the duty to take action if a colleague's health, performance or conduct is putting patients or public at risk	**Knows how**	*Knows how*
10.1.c Recognise personal health needs, consult and follow the advice of a suitably qualified professional, and protect patients or public from any risk posed by personal health	**Does**	*Does*
10.1.d Apply the principles of clinical governance in practice	**Knows how**	*Does*
10.1.e Demonstrate how the science of pharmacy is applied in the design and development of medicines and devices	**Shows how**	*Knows how*
10.1.f Contribute to the education and training of other members of the team, including peer review and assessment	**Shows how**	*Does*
10.1.g Contribute to the development of other members of the team through coaching and feedback	**Knows how**	*Shows how*
10.1.h Engage in multidisciplinary team working	**Knows how**	*Does*
10.1.i Respond appropriately to medical emergencies, including provision of first aid	**Knows how**	*Shows how*

10.2 The skills required in practice

10.2.1 Implementing health policy

Learning outcome	MPharm	*Pre-reg*
a. Promote healthy lifestyles by facilitating access to and understanding of health promotion information	**Shows how**	*Does*
b. Access & critically evaluate evidence to support safe, rational & cost effective use of medicines	**Shows how**	*Knows how*
c. Use the evidence base to review current practice	**Shows how**	*Does*
d. Apply knowledge of current pharmacy-related policy to improve health outcomes	**Knows how**	*Shows how*
e. Collaborate with patients, the public and other healthcare professionals to improve patient outcomes	**Knows how**	*Shows how*
f. Play an active role with public and professional groups to promote improved health outcomes	**Knows how**	*Knows how*

	MPharm	Pre-reg
g. Contribute to research & development activities to improve health outcomes	**Knows how**	*Knows how*
h. Provide evidence- based medicines information	**Shows how**	*Does*

10.2.2 Validating therapeutic approaches and supplies prescribed and over-the-counter medicines

Learning outcome	MPharm	*Pre-reg*
a. Identify and employ the appropriate diagnostic or physiological testing techniques in order to promote health	**Knows how**	*Shows how*
b. Identify inappropriate health behaviours and recommend suitable approaches to interventions	**Shows how**	*Does*
c. Instruct patients in the safe and effective use of their medicines and devices	**Shows how**	*Does*
d. Analyse prescriptions for validity and clarity	**Shows how**	*Does*
e. Clinically evaluate the appropriateness of prescribed medicines	**Shows how**	*Does*
f. Provide, monitor and modify prescribed treatment to maximise health outcomes	**Shows how**	*Does*
g. Communicate with patients about their prescribed treatment	**Shows how**	*Does*
h. Optimise treatment for individual patient needs in collaboration with the prescriber	**Shows how**	*Does*
i. Record, maintain and store patient data	**Shows how**	*Does*
j. Supply medicines safely and efficiently, consistently within legal requirements and best professional practice. NB This should be demonstrated in relation to both human and veterinary medicines.	**Shows how**	*Does*

10.2.3 Ensuring safe and effective systems are in place to manage risk inherent in the practice of pharmacy and the delivery of pharmaceutical services

Learning outcome	MPharm	*Pre-reg*
10.2.3.a. Ensure quality of ingredients to produce medicines and products	**Knows how**	*Shows how*
10.2.3.b. Apply pharmaceutical principles to the formulation, preparation and packaging of products	**Shows how**	*Shows how*
10.2.3.c. Verify safety and accuracy utilising pharmaceutical calculations	**Does**	*Does*
10.2.3.d. Develop quality management systems including maintaining appropriate records	**Shows how**	*Shows how*
10.2.3.e. Manage and maintain quality management systems including maintaining appropriate records	**Shows how**	*Does*
10.2.3.f. Procure and store medicines and other pharmaceutical products working within a quality assurance framework	**Knows how**	*Does*
10.2.3.g. Distribute medicines safely, legally and effectively	**Knows how**	*Does*

10.2.3.h.	Dispose of medicines safely, legally and effectively	**Knows how**	*Does*
10.2.3.i.	Manage resources in order to ensure work flow and minimise risk in the workplace	**Knows how**	*Shows how*
10.2.3.j.	Take personal responsibility for health and safety	**Does**	*Does*
10.2.3.k.	Work effectively within teams to ensure safe and effective systems are being followed	**Knows how**	*Does*
10.2.3.l.	Ensure the application of appropriate infection control measures	**Shows how**	*Does*
10.2.3.m.	Supervise others involved in service delivery	**Knows how**	*Does*
10.2.3.n.	Identify, report and prevent errors and unsafe practice	**Shows how**	*Does*
10.2.3.o.	Procure, store and dispense and supply veterinary medicines safely and legally	**Knows how**	*Knows how*

10.2.4 Working with patients and the public

Learning outcome	MPharm	*Pre-reg*
a. Establish and maintain patient relationships while identifying patients' desired health outcomes and priorities	**Shows how**	*Does*
b. Obtain and record relevant patient medical, social and family history	**Shows how**	*Does*
c. Identify and employ the appropriate diagnostic or physiological testing techniques to inform clinical decision making	**Knows how**	*Shows how*
d. Communicate information about available options in a way which promotes understanding	**Shows how**	*Does*
e. Support the patient in choosing an option by listening and responding to their concerns and respecting their decisions	**Shows how**	*Does*
f. Conclude consultation to ensure a satisfactory outcome	**Shows how**	*Does*
g. Maintain accurate and comprehensive consultation records	**Shows how**	*Does*
h. Provide accurate written or oral information appropriate to the needs of patients, the public or other healthcare professionals	**Shows how**	*Does*

10.2.5 Maintaining and improving professional performance

Learning outcome	MPharm	*Pre-reg*
a. Demonstrate the characteristics of a prospective professional pharmacist as set out in relevant codes of conduct and behaviour	**Does**	*Does*
b. Reflect on personal and professional approaches to practice	**Does**	*Does*
c. Create and implement a personal development plan	**Does**	*Does*

d. Review and reflect on evidence to monitor performance and revise professional development plan	**Does**	*Does*
e. Participate in audit and in implementing recommendations	**Knows how**	*Shows how*
f. Contribute to identifying learning and development needs of team members	**Knows how**	*Does*
g. Contribute to the development and support of individuals and teams	**Knows how**	*Does*
h. Anticipate and lead change	**Knows how**	*Shows how*

Indicative syllabus

A1.1 How medicines work

Therapeutics

- Routes of administration
- New therapeutic advances
- Infection control
- Complementary therapies
- Clinical therapeutic uses of drugs

Applied Physical, Chemical and Biological sciences

- Sources and purification of medicinal substances
- Physicochemical characteristics of drugs and biological systems
- Thermodynamics and chemical kinetics
- (Bio)Analytical principles and methods
- Drug design and discovery
- Cell and molecular biology
- Biochemistry
- Genetics
- Microbiology
- Immunology
- Pharmaceutical chemistry

- Drug identification
- Drug synthesis

Pharmacology, pharmacokinetics & pharmacodynamics
- Contraindications, adverse reactions and drug interactions
- ADME
- Prediction of drug properties
- Pharmacogenetics and pharmacogenomics
- Drug and substance misuse
- Clinical toxicology and drug-over-exposure
- Molecular basis of drug action
- Metabolism

Pharmaceutical technology including manufacturing & engineering science
- Biotechnology
- Manufacturing methods
- Quality assurance processes
- Sterilisation and asepsis
- Environmental control in manufacturing

Formulation and material science
- Materials used in formulations and devices
- Biopharmaceutics, developmental pharmaceutics, pre-formulation and formulation studies
- Design and standardization of medicines
- Microbiological contamination
- Contamination control
- Product stability
- Medical devices

A1.2   How people work

Normal & abnormal structure & function
- Nutrition
- Physiology
- Pathology
- Infective processes

Sociology
- Social and behavioural science

Health psychology
- Health promotion
- Disease prevention
- Behavioural medicine

Objective diagnosis
- Differential diagnosis
- Symptom recognition
- Diagnostic tests

Epidemiology
- Aetiology and epidemiology of (major) diseases

A1.3 How systems work

Healthcare management
- Public health
- Organisations: NHS,DH, govt priorities
- Other professionals

- Health care systems

Evidence-based practice
- Health information systems/ resources
- Health policy and (pharmaco)economics

Professional regulation
- Legislation
- Professional ethics and fitness to practise
- Sale and supply of medicines
- CPD
- Political and legal framework

Medicines regulation
- Evaluation and regulation of new drugs and medicines
- Pharmacopoeial specifications and biological standards
- Medicines licensing
- Product quality, safety and efficacy
- The supply chain
- Packaging, labelling and patient information

Clinical governance
- SOPs
- Research methodology / research ethics
- Risk & quality management
- Good manufacturing/dispensing practice
- Good clinical practice
- Health policy, clinical and science research methods

Clinical management
- Disease management
- Chronic medicines management

- Medicines use review
- Care planning

Workplace Regulation
- Health & Safety
- Sexual boundaries
- Independent Safeguarding Authority
- Data protection
- FOIA
- Consumer protection incl. complaints procedures

A1.4 Core and transferable skills

Professionalism

Research and research methods

Critical appraisal
- Audit and learning from errors

Problem solving
- Study skills
- Team-working skills

Clinical decision making
- Leadership skills

Accurate record keeping

 Reflective practice (incl. continuing professional development)

Effective communication
- Interpersonal skills
- Medical terminology

Interpret & interrogate clinical data

Analyse & use numerical data

Pharmaceutical numeracy

Technological literacy

A1.5   Attitudes and values

See the GPhC *Code of Conduct for pharmacy students* (2010) and *Standards of conduct, ethics and performance* (2010)