Accreditation of a Master of Pharmacy degree course (MPharm)

Durham University

Report of a Step 5 Accreditation event, 29-30 January 2015

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

Durham University, the third oldest university in England and ranked in the top 100 universities in the world, approached the GPhC in April 2010 with a view to entering the process for accrediting a new MPharm degree to be delivered by the School of Medicine, Pharmacy and Health (formerly the School of Medicine and Health), which comprises the Division of Pharmacy and the Division of Medicine. Following a successful step 1 event in September 2011, the University appointed a Director of Education to develop the programme with a plan to admit the first cohort of students in 2013. The University progressed successfully through step 2 (June 2012) and step 3 (February 2013), without any conditions or recommendations, subsequently admitting its first students in October 2013. A successful step 4 took place in June 2014, again without any conditions and recommendations, and a step 5 event was scheduled for January 2015. 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 by teleconference on 12 January 2015. During the pre-visit the schedule of meetings and timings for the Step 5 accreditation event were confirmed and the GPhC requested that three additional documents be submitted ready for the event, these being feedback from students (comprising minutes of meetings of the Staff-Student Liaison Committee and notes from two ‘town-hall’ meetings), and data on entry qualifications for the 2014/15 intake.

The event

The event began with a private meeting of the accreditation team and GPhC representatives on 29 January 2015. The remainder of the event took place on site at Durham University on 30 January 2015, and comprised a series of meetings with staff and students of the University.

Accreditation team

The GPhC’s accreditation team (‘the team’) comprised:

<table>
<thead>
<tr>
<th>Name</th>
<th>Designation at the time of accreditation event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professor Terry Healey*</td>
<td>Team leader, Professor Emeritus, Robert Gordon University</td>
</tr>
<tr>
<td>Dr Ruth Edwards</td>
<td>Team member – Academic, Senior Lecturer and MPharm Course Leader, Robert Gordon University</td>
</tr>
<tr>
<td>Ms Leonie Milliner</td>
<td>Team member – Lay member, Chief Executive, Association for Nutrition</td>
</tr>
<tr>
<td>Mr Ian Smith</td>
<td>Team member – Pharmacist, Lecturer in Pharmacy Practice, Keele University</td>
</tr>
<tr>
<td>Mrs Barbara Wensworth</td>
<td>Team member – Pharmacist, Previous hospital Pharmacist, Freelance Consultant Pharmacist, Lecturer, External Verifier, assessor and writer</td>
</tr>
<tr>
<td>Mr Owen Wood</td>
<td>Team member - Recently Registered Pharmacist, Pharmacist Manager (WR Evans Chemist Ltd t/a Manor Pharmacy)</td>
</tr>
</tbody>
</table>

along with:

<table>
<thead>
<tr>
<th>Name</th>
<th>Designation at the time of visit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ms Joanne Martin *</td>
<td>Quality Assurance Manager (Education), General Pharmaceutical Council</td>
</tr>
<tr>
<td>Professor Brian Furman</td>
<td>Rapporteur, Emeritus Professor of Pharmacology, University of Strathclyde</td>
</tr>
</tbody>
</table>

*attended pre-visit meeting on 12 January 2015
Declaration of potential conflicts of interest

Mrs Barbara Wensworth is a personal friend of one of the University’s expert patients.

Meeting the accreditation standards

<table>
<thead>
<tr>
<th>Standard 1 – Patient and public safety</th>
<th>Accreditation team’s commentary</th>
</tr>
</thead>
<tbody>
<tr>
<td>There must be clear procedures to address concerns about patient safety arising from initial pharmacy education and training. Concerns must be addressed immediately.</td>
<td>The School has measures in place to ensure that students do not jeopardise patient safety; these include inculcation of professionalism and awareness of patient safety throughout the curriculum, appropriate preparation and briefing of students before embarking on placement activities, and having procedures to manage any issues that potentially jeopardise patient safety. Students are familiarised with the GPhC’s Code of Conduct for Pharmacy Students (2010) and Standards of Conduct, Ethics and Performance (2010) and understand the concept of fitness to practise. The tasks that students are required to undertake, and the level of supervision provided are appropriate to their stage of development, with tasks becoming progressively more complex throughout the course and the level of support and supervision becoming progressively less. Students are monitored and assessed for safety in their practice in laboratory classes, in dispensing sessions, while on placements, as well as during the acquisition of clinical skills, with systems in place for reporting concerns about their competence and ability to perform safely. The importance of patient confidentiality is emphasised from the beginning of the course. The team was satisfied that this standard was met.</td>
</tr>
</tbody>
</table>

<p>| Standard 2 – Monitoring, review and evaluation of initial education and training | The University has a well-established governance and quality management framework. The School of Medicine, Pharmacy and Health lies within the Faculty of Social Sciences and Health which reports to the University’s Executive Committee through the responsible Pro-Vice-Chancellor. The School itself operates through the Board of Studies, which is responsible for the operation of the teaching, research and administration of the School. In relation to quality assurance for the MPHarm, Education Committees at both Faculty and School level report to the University’s Education Committee and Quality and Standards Sub-Committee. The monitoring, review and evaluation of the quality of teaching, learning and assessment utilises both an annual review and a six yearly departmental review; the School, as a whole, was reviewed at the end of the 2013/14 academic year. The review and evaluation of placement activities includes informal meetings and formal evaluation questionnaires, as well as regular meetings with placement hosts. There is a Placement Steering Group which reviews the efficacy and appropriateness of the review mechanisms. The School Board of Studies includes an MPHarm student representative within its membership and the MPHarm programme has its own Staff Student Consultative Committee. Students are also consulted through open meetings and using evaluation questionnaires. There is also a newly established |</p>
<table>
<thead>
<tr>
<th>Standard 3 – Equality, diversity and opportunity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial pharmacy education and training must be based on principles of equality, diversity and fairness. It must meet the requirements of all relevant legislation.</td>
</tr>
<tr>
<td>The University has a Dean of Diversity and a Diversity and Equality Advisory Group and the documentation described the policies operating to support diversity and equality; the documentation also stated that the University collects and considers appropriate equality and diversity related information. All member of staff within the Division have completed an on-line training package on equality and diversity, as well as a tailored training session that provided an overview of generic aspects of the 2010 Equality Act. Relevant training is required for those staff members involved in either student admissions or in academic appointment interviewing. The University is pursuing an Athena-SWAN silver award. The Head of School stressed how serious Durham was in embedding equality, diversity and fairness in all aspects of the policies and processes at Durham. The team was impressed at the emphasis placed around supporting these issues across the Durham experience.</td>
</tr>
<tr>
<td><strong>The team was satisfied that this standard was met.</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Standard 4 – Selection of students and trainees</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
</tr>
<tr>
<td>The University provides both hard copy and online information about the MPharm programme, including entry requirements, selection criteria, course content, careers opportunities and how to apply. Selection criteria include the A-level or equivalent qualifications, as well as the English language and numeracy requirements. The University policy for widening access has resulted in students also being admitted to the MPharm with BTEC qualifications, as well as from the University’s long-established Foundation Programme; the progress of students with non-traditional qualifications in comparison with those admitted with A-levels is closely monitored. All students must complete an enhanced DBS clearance and undergo health evaluation. Students who have not been resident in the UK or who have been here for less than six months, must provide a letter of good conduct from their home country; from level 2 onwards, such students must submit a DBS declaration. Students must make an annual declaration that their circumstances have/have not changed from the previous year in respect of DBS and health, and that they have not been involved in any other issues that may affect their fitness to practise. Processes are in place to deal with issues arising from initial health or DBS checks or from subsequent declarations. All members of staff involved in any aspect of the admissions process must undergo annual training to ensure the implementation of the University’s admissions policy in relation to widening participation, and avoiding discrimination in the context of gender, belief, sexual orientation, and social, cultural, ethnic, educational or economic background.</td>
</tr>
<tr>
<td><strong>The team was satisfied that this standard was met.</strong></td>
</tr>
</tbody>
</table>
and had included a talk from the Dean providing an insight into the course and the placements they would undertake, as well as hands-on laboratory classes making emulsions and suspensions and a session with SimMan. The open day had differentiated Durham from other schools of pharmacy, because of the hands-on experience rather than simply being given a series of talks. Because of the newness of the School, parents had been worried but the staff had spoken in depth with parents for one and a half hours, creating a very good impression. The students were keen to emphasise that it was the commitment and enthusiasm demonstrated by staff both at the open days and outside these official days, that helped them make the decision to choose Durham and placed great value on this.

The team was satisfied that this standard was met.

### Standard 5 – Curriculum delivery

The programme is delivered through an inter-disciplinary, integrated curriculum, with large, single modules at each of levels 1 to 3 with two final-year modules, one of which is the research project. Level 1 provides underpinning science including fundamental pharmaceutical chemistry, formulation, pharmaceutical microbiology, anatomy and physiology, while orientating students to the profession. The focus at level 2 is on pathology and therapeutics, and strategies for treatment of diseases as single entities using examples from gastro-intestinal, respiratory and cardiovascular medicine, alongside the teaching of law and ethics. At level 3, students deal with evidence-based decision making around semi-complex cases, while level 4 covers applied therapeutics, including complex disease management and critique of prescribing decisions. The programme is organised around case-studies, which may be science and/or clinical-based. Moving through the programme, students become increasingly challenged, demanding a greater degree of understanding of the subject area that is applied in more complex situations. Typically, this is demonstrated by more complex clinical cases, but is equally illustrated with cases around infection control, a manufacturing process, or the design of an experiment to identify the outcome of a synthetic chemical reaction. The syllabus has a significant clinical emphasis, but also retains the important and relevant aspects of pharmaceutical science. Various teaching methodologies and approaches are used to support student learning and development. These include a bespoke anatomy course, formal lectures, laboratory classes, clinical skills sessions, seminars, workshops, problem-based learning, inter-professional education and placements. Students are expected to add to their knowledge using both directed and independent self-study, and to develop as independent learners, as they progress through the programme. Technology is used widely in the learning process; this includes the use of webcasts to support lecture and seminar material and 3G SimMan mannequins and other simulators to support the teaching of clinical skills. Student learning is supported by an extensive programme of placements in hospital, industrial and community pharmacy, and students experience working with volunteer patients within the University; they also gain experience of healthcare in other areas, including general practice, hospices, nursing homes and prisons. Experience of working with students of other health professions, especially medical students, is through a structured inter-professional education (IPE) programme across all four years. The assessment strategy, which uses a variety of assessment types, has been designed to ensure that the outcomes in Standard 10 are achieved at the appropriate level of competence. The programme makes extensive use of...
objective-structured clinical examinations (OSCEs) to test the learning outcomes, with an emphasis on assessing students’ abilities to communicate with patients. Assessments become more complex as the programme progresses, with a greater emphasis on problem solving and independent working at the higher levels. In order to ensure that assessments reflect safe and effective practice, the programme includes pass/fail assessments, in which the students must complete tasks without making any major omissions or demonstrating practice that could be damaging to a patient or process. OSCEs include specific points that the student must address and specific points that must be ruled out (red flags) in order to pass. In these assessments, if students demonstrate unsafe practice, or fail to address any of the essential criteria, they will fail the individual station and be required to repeat the whole OSCE. If students fail one aspect of the dispensing examination, they will also fail the whole assessment. Throughout the programme, students are expected to keep a reflective portfolio, which is associated with the practical experience aspects of the programme, including placements and IPE.

The documentation described the MPharm as a research-led programme, in that the subject content is based largely on research interests of staff, all of whom are research active. The programme is underpinned by research-teaching linkages, so that students acquire the knowledge and skills required to undertake research at an increasingly advanced and specialised level; they are required to collect and manage data throughout the programme and present it in an appropriate manner. All modules include aspects of research-related teaching and students learn to engage with research and become familiar with the communities of practice involved in research within the University as a whole. Final year students undertake a large research project, while at levels 2 and 3, students engage in ‘mini-projects’ where they are required to design a research protocol and write a report, which includes a literature review of the subject area; at level 2, as discussed in meeting 2 (see 5.5.below), students engage in a small-scale industrial production exercise where they will carry out the synthesis, formulation and quality control of a drug/medicinal product. The School’s strategic aim is targeting students to continue to postgraduate studies in the various areas of pharmacy. In meeting 5, the students told the team that staff members talk about their research and invite students to help out in the research laboratories. The students also explained the strong influence research plays in their studies and how the staff bring to the fore the importance of research as they develop into a pharmacist. The staff are keen to share their research within the teaching and learning and also outside of formal sessions. The students recognised the enthusiasm shown by the staff in helping them appreciate the value research plays in their development.

The team was confident that this standard will be met.

| Standard 6 – Support and development for students and trainees | Extensive support mechanisms are available for students. Each student has an academic adviser who meets his/her students regularly to discuss their progress. Meetings with advisers are scheduled throughout each term and at these meetings the advisers discuss what action students should take following diagnostic and formative tests. Adviser meetings are also used to discuss the students’ reflective portfolios. All meetings with advisers have a particular focus and documentation from the academic adviser meetings provides an audit trail. In addition to academic advisers, all members of staff provide office hours, |
Students and trainees must be supported to develop as learners and professionals during their initial education and training. during which students can consult relevant members of staff. A unique feature of Durham University is its college system, which provides another major level of support greatly valued by the students. The colleges provide students with mentors from a variety of professional backgrounds who support students during their time at the University, even when they do not live in the college. There is also a ‘college parents’ system, whereby senior students in colleges act as mentors to their junior colleagues. The MPharm students have also developed a ‘parenting’ system within the University, in which level 2 students provide support and advice to their juniors. Other support includes the University’s Careers, Employability and Enterprise Centre, as well as informal networking with stakeholders. Problems had arisen with student accommodation during the current academic year, this having resulted in some students having to live some distance from Queen’s Campus. Next year, all accommodation is planned to be within Stockton.

The team was satisfied that this standard was met.

<table>
<thead>
<tr>
<th>Standard 7 – Support and development for academic staff and pre-registration tutors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anyone delivering initial education and training should be supported to develop in their professional roles.</td>
</tr>
<tr>
<td>The support mechanisms available for academic staff include a centrally facilitated formal induction into the University, as well as local activities to facilitate orientation and induction. All members of staff are allocated a mentor to support them throughout their time with the University. A wide range of training opportunities is offered through the University’s Training and Development team and through the Centre for Academic and Researcher Development (CARD). Newly appointed members of academic staff are required undertake a programme of initial professional development through the PGCAP, which is a 60 credit postgraduate certificate, accredited by the Higher Education Academy (HEA). The University also provides support for postgraduates, post-doctoral workers and part-time staff to undertake professional development and thus gain accreditation as teachers in higher education; it is anticipated that this will benefit various categories, but particularly teacher-practitioners. An Annual Staff Review (ASR) facilitates formal discussion and articulation of individual responsibilities and objectives in alignment with School, Faculty and broader University objectives. Academic members of staff who are not pharmacists have clear lines of communication available to them to discuss professional issues, most notably through the members of the team who are registrants. The curriculum has been and is being developed by small subject/topic level groups that are overseen by the Programme Director. These groups encourage reflection on how the curriculum is delivered and bring together registrants and non-pharmacists, as well as colleagues with differing pedagogical experiences. The work of these groups continues to be supported by relevant training and technology. All members of staff in the programme team are expected to have a full understanding of the programme content. As the course is still developing and the steady-state number of staff will not be achieved until 2017/18, the staff workload is high, especially on individuals with certain specialities, but a new workload model is under development for implementation in the new year; this will allow staff members an appropriate balance of teaching, research and administration.</td>
</tr>
<tr>
<td>The team was satisfied that this standard was met.</td>
</tr>
<tr>
<td>Standard 8 – Management of initial education and training</td>
</tr>
<tr>
<td>---------------------------------------------------------</td>
</tr>
<tr>
<td>Education and training must be planned and maintained through transparent processes which must show who is responsible for what at each stage.</td>
</tr>
<tr>
<td>The programme is managed through the Dean of Pharmacy, who delegates responsibility to the Programme Director working with the formal MPharm Programme Board; this Board includes all members of academic staff, along with representatives of the technical and administrative support staff. The Programme Director works alongside each of the Level Leaders; there is also a Deputy Leader for each level. Leaders and deputies have also been appointed for work-based learning and interprofessional education (IPE). The Division has also appointed a Research Director. Teaching space is allocated through centralised timetabling, with the space available on Queen’s Campus being discussed regularly with the School, to ensure the availability of the type of space needed. Students must attend all placements and group teaching sessions such as laboratory sessions, clinical skills sessions and those focused on IPE. Attendance registers are monitored weekly and followed up in conjunction with the appropriate academic adviser and, if necessary, the Level Leader and the Programme Director.</td>
</tr>
<tr>
<td>The team was satisfied that this standard was met.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Standard 9 - Resources and capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resources and capacity are sufficient to deliver outcomes.</td>
</tr>
<tr>
<td>The University’s Annual Planning round is informed by departmental plans, which are submitted via the Faculty to secure resource allocation at University level. The Divisional funds remain ring-fenced from those more broadly within the School and the Division continues to operate within the structure of its agreed business plan. Senior members of the pharmacy staff are aware of all of the risks associated with the business plan, the main one being the failure to recruit sufficient students; however, there was confidence in the steps taken to mitigate the risks, including the University’s major focus on the ‘student experience’ and marketing. The current business plan identifies an academic staff recruitment plan, which fits into the development of each level of the programme, and recruitment is timed to ensure that the SSR is always maintained below 16:1. The intention is to recruit as many pharmacists as possible, with all those recruited in the pharmacy practice area being GPhC registrants. The programme team has immediate access to an already established body of expertise within the whole School, covering aspects of microbiology, physiology and anatomy; such individuals contribute to both IPE and anatomy sessions. In addition to the core staff, there are several visiting/honorary posts comprising local practitioners; these individuals will contribute to the programme as appropriate. There will also be specialist clinical input within the programme from a number of professional groups, including pharmacy and medicine. The full technical team has now been recruited, along with four of the seven planned administrative posts. All members of staff will be trained to ensure that their expertise is related to pharmacy and the professional context. To this end, all staff members are involved in programme development including the assessment strategy. Moreover, time is made available for all staff members to engage with regional stakeholders; pharmacist staff members are encouraged to continue with professional practice and non-pharmacist staff members spend a period of time working in the practice environment to get a better idea of the work of a pharmacist. The learning and research resources available to the MPharm programme include dedicated resources, as well as those made available through the medical programme. There is an annual allocation for the purchase of teaching equipment and the budget also identifies significant annual funding to support electronic and hard-copy library resources. Students have access to all five library sites, which offer extensive opening hours and generous borrowing privileges, as well as flexible working and study spaces, which are well equipped with Wi-Fi and computer access. There is a dedicated suite of rooms for the MPharm,</td>
</tr>
</tbody>
</table>
including the dispensary, consultation spaces and a physiology laboratory; the fully functional dispensary has a range of live drugs, full reference material including the Medicines Complete Suite and all appropriate IT facilities.

**The team was satisfied that this standard was met.**

<table>
<thead>
<tr>
<th>Standard 10 - Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>As the team had scrutinised the outcomes at step 4, they were not specifically re-examined at the step 5 event. The team agreed that the outcomes would be re-visited at a subsequent step in the accreditation process. Meanwhile, from then documentation and discussions with staff and students, the team remained confident that the learning outcomes would be delivered at the appropriate level.</td>
</tr>
<tr>
<td><strong>The team was confident that this standard will be met.</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Indicative Syllabus</th>
</tr>
</thead>
<tbody>
<tr>
<td>The team was content with the School’s use of the Indicative Syllabus to inform its curriculum.</td>
</tr>
<tr>
<td>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.</td>
</tr>
</tbody>
</table>
Summary and conclusions

The accreditation team agreed to recommend to the Registrar of the General Pharmaceutical Council that the MPharm degree delivered by Durham University should be permitted to move from step 5 to step 6 of the accreditation process for new MPharm degrees.

There are no conditions or recommendations.

Strengths:
The team continue to recognise the substantive achievement in the development of an ambitious and innovative MPharm degree at Durham. The team would also like to recognise the academic and pastoral support available to the students. The students clearly articulated how much they appreciate this support.

The full record and report includes other comments from the team and the Registrar regards the record and report in its entirety as the formal view on provision. Providers are required to take all comments into account as part of the accreditation process.

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.


Caution: Preregistration and employment as a pharmacist:

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

Following the above accreditation event, the Registrar of the General Pharmaceutical Council agreed with the accreditation team’s recommendation and approved Durham University to progress from step 5 to step 6 of the GPhC’s accreditation process for new MPharm degrees. Step 6 of the accreditation process will take place in 2015-16 academic year.
Appendix 1 – Standards for the initial education and training of pharmacists

[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.]

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 accreditation 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

<table>
<thead>
<tr>
<th>Learning outcome</th>
<th>MPharm</th>
<th>Pre-reg</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.1.a Recognise ethical dilemmas &amp; respond in accordance with relevant codes of conduct and behaviour</td>
<td>Shows how</td>
<td>Does</td>
</tr>
<tr>
<td>10.1.b Recognise the duty to take action if a colleague’s health, performance or conduct is putting patients or public at risk</td>
<td>Knows how</td>
<td>Knows how</td>
</tr>
<tr>
<td>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</td>
<td>Does</td>
<td>Does</td>
</tr>
<tr>
<td>10.1.d Apply the principles of clinical governance in practice</td>
<td>Knows how</td>
<td>Does</td>
</tr>
<tr>
<td>10.1.e Demonstrate how the science of pharmacy is applied in the design and development of medicines and devices</td>
<td>Shows how</td>
<td>Knows how</td>
</tr>
<tr>
<td>10.1.f Contribute to the education and training of other members of the team, including peer review and assessment</td>
<td>Shows how</td>
<td>Does</td>
</tr>
<tr>
<td>10.1.g Contribute to the development of other members of the team through coaching and feedback</td>
<td>Knows how</td>
<td>Shows how</td>
</tr>
<tr>
<td>10.1.h Engage in multidisciplinary team working</td>
<td>Knows how</td>
<td>Does</td>
</tr>
<tr>
<td>10.1.i Respond appropriately to medical emergencies, including provision of first aid</td>
<td>Knows how</td>
<td>Shows how</td>
</tr>
</tbody>
</table>

10.2 The skills required in practice

10.2.1 Implementing health policy

<table>
<thead>
<tr>
<th>Learning outcome</th>
<th>MPharm</th>
<th>Pre-reg</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Promote healthy lifestyles by facilitating access to and understanding of health promotion information</td>
<td>Shows how</td>
<td>Does</td>
</tr>
<tr>
<td>b. Access &amp; critically evaluate evidence to support safe, rational &amp; cost effective use of medicines</td>
<td>Shows how</td>
<td>Knows how</td>
</tr>
<tr>
<td>c. Use the evidence base to review current practice</td>
<td>Shows how</td>
<td>Does</td>
</tr>
<tr>
<td>d. Apply knowledge of current pharmacy-related policy to improve health outcomes</td>
<td>Knows how</td>
<td>Shows how</td>
</tr>
<tr>
<td>e. Collaborate with patients, the public and other healthcare professionals to improve patient outcomes</td>
<td>Knows how</td>
<td>Shows how</td>
</tr>
<tr>
<td>f. Play an active role with public and professional groups to promote improved health outcomes</td>
<td>Knows how</td>
<td>Knows how</td>
</tr>
<tr>
<td>g. Contribute to research &amp; development activities to improve health outcomes</td>
<td>Knows how</td>
<td>Knows how</td>
</tr>
<tr>
<td>h. Provide evidence-based medicines information</td>
<td>Shows how</td>
<td>Does</td>
</tr>
</tbody>
</table>
### 10.2.2 Validating therapeutic approaches and supplies prescribed and over-the-counter medicines

<table>
<thead>
<tr>
<th>Learning outcome</th>
<th>MPharm</th>
<th>Pre-reg</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>a.</strong> Identify and employ the appropriate diagnostic or physiological testing techniques in order to promote health</td>
<td>Knows how</td>
<td>Shows how</td>
</tr>
<tr>
<td><strong>b.</strong> Identify inappropriate health behaviours and recommend suitable approaches to interventions</td>
<td>Shows how</td>
<td>Does</td>
</tr>
<tr>
<td><strong>c.</strong> Instruct patients in the safe and effective use of their medicines and devices</td>
<td>Shows how</td>
<td>Does</td>
</tr>
<tr>
<td><strong>d.</strong> Analyse prescriptions for validity and clarity</td>
<td>Shows how</td>
<td>Does</td>
</tr>
<tr>
<td><strong>e.</strong> Clinically evaluate the appropriateness of prescribed medicines</td>
<td>Shows how</td>
<td>Does</td>
</tr>
<tr>
<td><strong>f.</strong> Provide, monitor and modify prescribed treatment to maximise health outcomes</td>
<td>Shows how</td>
<td>Does</td>
</tr>
<tr>
<td><strong>g.</strong> Communicate with patients about their prescribed treatment</td>
<td>Shows how</td>
<td>Does</td>
</tr>
<tr>
<td><strong>h.</strong> Optimise treatment for individual patient needs in collaboration with the prescriber</td>
<td>Shows how</td>
<td>Does</td>
</tr>
<tr>
<td><strong>i.</strong> Record, maintain and store patient data</td>
<td>Shows how</td>
<td>Does</td>
</tr>
<tr>
<td><strong>j.</strong> 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.</td>
<td>Shows how</td>
<td>Does</td>
</tr>
</tbody>
</table>

### 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

<table>
<thead>
<tr>
<th>Learning outcome</th>
<th>MPharm</th>
<th>Pre-reg</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>10.2.3.a.</strong> Ensure quality of ingredients to produce medicines and products</td>
<td>Knows how</td>
<td>Shows how</td>
</tr>
<tr>
<td><strong>10.2.3.b.</strong> Apply pharmaceutical principles to the formulation, preparation and packaging of products</td>
<td>Shows how</td>
<td>Shows how</td>
</tr>
<tr>
<td><strong>10.2.3.c.</strong> Verify safety and accuracy utilising pharmaceutical calculations</td>
<td>Does</td>
<td>Does</td>
</tr>
<tr>
<td><strong>10.2.3.d.</strong> Develop quality management systems including maintaining appropriate records</td>
<td>Shows how</td>
<td>Shows how</td>
</tr>
<tr>
<td><strong>10.2.3.e.</strong> Manage and maintain quality management systems including maintaining appropriate records</td>
<td>Shows how</td>
<td>Does</td>
</tr>
<tr>
<td><strong>10.2.3.f.</strong> Procure and store medicines and other pharmaceutical products working within a quality assurance framework</td>
<td>Knows how</td>
<td>Does</td>
</tr>
<tr>
<td><strong>10.2.3.g.</strong> Distribute medicines safely, legally and effectively</td>
<td>Knows how</td>
<td>Does</td>
</tr>
<tr>
<td><strong>10.2.3.h.</strong> Dispose of medicines safely, legally and effectively</td>
<td>Knows how</td>
<td>Does</td>
</tr>
<tr>
<td>Learning outcome</td>
<td>MPharm</td>
<td>Pre-reg</td>
</tr>
<tr>
<td>------------------</td>
<td>--------</td>
<td>--------</td>
</tr>
<tr>
<td>a. Establish and maintain patient relationships while identifying patients' desired health outcomes and priorities</td>
<td>Shows how</td>
<td>Does</td>
</tr>
<tr>
<td>b. Obtain and record relevant patient medical, social and family history</td>
<td>Shows how</td>
<td>Does</td>
</tr>
<tr>
<td>c. Identify and employ the appropriate diagnostic or physiological testing techniques to inform clinical decision making</td>
<td>Knows how</td>
<td>Shows how</td>
</tr>
<tr>
<td>d. Communicate information about available options in a way which promotes understanding</td>
<td>Shows how</td>
<td>Does</td>
</tr>
<tr>
<td>e. Support the patient in choosing an option by listening and responding to their concerns and respecting their decisions</td>
<td>Shows how</td>
<td>Does</td>
</tr>
<tr>
<td>f. Conclude consultation to ensure a satisfactory outcome</td>
<td>Shows how</td>
<td>Does</td>
</tr>
<tr>
<td>g. Maintain accurate and comprehensive consultation records</td>
<td>Shows how</td>
<td>Does</td>
</tr>
<tr>
<td>h. Provide accurate written or oral information appropriate to the needs of patients, the public or other healthcare professionals</td>
<td>Shows how</td>
<td>Does</td>
</tr>
</tbody>
</table>

### 10.2.5 Maintaining and improving professional performance

<table>
<thead>
<tr>
<th>Learning outcome</th>
<th>MPharm</th>
<th>Pre-reg</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Demonstrate the characteristics of a prospective professional pharmacist as set out in relevant codes of conduct and behaviour</td>
<td>Does</td>
<td>Does</td>
</tr>
<tr>
<td>b. Reflect on personal and professional approaches to practice</td>
<td>Does</td>
<td>Does</td>
</tr>
<tr>
<td>c. Create and implement a personal development plan</td>
<td>Does</td>
<td>Does</td>
</tr>
<tr>
<td>d. Review and reflect on evidence to monitor performance and revise professional development plan</td>
<td>Does</td>
<td>Does</td>
</tr>
<tr>
<td>e. Participate in audit and in implementing recommendations</td>
<td>Knows how</td>
<td>Shows how</td>
</tr>
<tr>
<td></td>
<td>Contribution to identifying learning and development needs of team members</td>
<td>Knows how</td>
</tr>
<tr>
<td>---</td>
<td>--------------------------------------------------------------------------</td>
<td>----------</td>
</tr>
<tr>
<td>f.</td>
<td>Contribute to the development and support of individuals and teams</td>
<td>Knows how</td>
</tr>
<tr>
<td>g.</td>
<td>Anticipate and lead change</td>
<td>Knows how</td>
</tr>
</tbody>
</table>

**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)