

Reaccreditation of a Master of Pharmacy degree course (MPharm)

University of Manchester

Report of a reaccreditation event, 13-15 May 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

The MPharm at the University of Manchester is delivered by the School of Pharmacy, previously known as the School of Pharmacy and Pharmaceutical Sciences, and which was renamed the Manchester Pharmacy School in 2012, to reflect the science practice integration at Manchester. The School is one of five within the Faculty of Medical & Human Sciences, the others being the Manchester Medical School, the School of Nursing, Midwifery and Social Work, the School of Dentistry and the School of Psychological Sciences. The MPharm programme was last reaccredited in 2010 by the Royal Pharmaceutical Society of Great Britain, the then regulatory body. On that occasion, the programme was re-accredited for the full period of five years subject to two conditions. These were:-

- i. The University was required to inform the Society should the higher education financial climate deteriorate such that pharmacy provisions was affected significantly and negatively. The reason for this condition was that at the time of the reaccreditation event there was greater anxiety than usual about future higher education funding; in imposing that condition, the University was not being singled out.

- ii. The University was required to inform the Society of changes to the School's senior team. The reason for this condition was that the Dean's stated plans for the future direction of pharmacy included developing the senior team.

A reaccreditation event was subsequently scheduled for May 2015 and 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 the University of Manchester on 15 April, 2015. During the pre-visit the schedule of meetings and timings for the reaccreditation event were confirmed and the GPhC requested that four of documents be submitted/resubmitted ready for the event. These were i) the admission profile for the last 3 years ii) NSS results over the last 3 years iii) a business plan to reflect income and expenditure and staffing and risk analysis iv) a rewrite of standard 10 to reflect how the outcomes are assessed using a few examples.

The event

The event began with a private meeting of the accreditation team and GPhC representatives on 13 May 2015. The remainder of the event took place on site at the University of Manchester on 14-15 May 2015, 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
Professor Chris Langley	(Team member - Academic) Professor of Pharmacy Law and Practice and Deputy Head of the School of Pharmacy, Aston University
Mrs Sandra Hall	(Team member - Academic) Head of Pharmacy Practice Leicester School of Pharmacy, De Montfort University
Professor Anthony Smith	(Team member - Academic) Vice Provost Education and Student Affairs, University College London
Mrs Gail Fleming	(Team member - Pharmacist) Head of Pharmacy, Health Education, Kent Surrey, Sussex
Mr Scott Downham	(Team member - Pharmacist recently registered) Clinical Pharmacist, Guys and St Thomas' NHS Foundation Trust
Ms Leonie Milliner	(Team member - Lay member) Chief Executive, Association for Nutrition
Ms Sabina Khanom**	(Team member - Pharmacist) Patient Safety Lead (Primary Care), NHS England

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

*attended pre-visit meeting on 15 April 2015

**Due to personal circumstances, Ms Khanom could not participate in the event but her submitted questions were incorporated into the discussions

Declaration of potential conflicts of interest

No potential conflicts of interest were declared.

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.	All applicants are required to complete a self-declaration that contains a link to the GPhC Code of Conduct for Pharmacy Students and those who are offered a place must also complete a health screening questionnaire. On arrival, all students undergo an enhanced Disclosure and Barring Service (DBS) check with a subsequent annual self-declaration of health and behaviour, and students are fully aware of their responsibilities in this regard. All MPharm students are subject to the Faculty Fitness to Practise regulations and any concerns about students' fitness to study or practise, particularly where they relate to safe practice in contact with patients or the public, may be raised by students, or by members of the teaching staff, including clinical tutors in hospitals, and by community placement pharmacists. During induction in welcome week, students are again made aware of the Code of Conduct for Pharmacy Students, which is also included in all year handbooks. Students are always appropriately supervised when they visit a community pharmacy or hospital and receive clear introductions on codes of conduct, patient confidentiality, specific professional behaviours and dress codes, especially where these relate to patient safety. Risk assessments are carried out by all placement providers to ensure the safety of both students and the public. In hospital placements in later years, students are gradually given more responsibility for directing their own learning, which includes becoming independent in the clinical environment. This necessarily means that students are not directly supervised at all times, but are thoroughly briefed by Clinical Tutors who retain full responsibility for their students. The remit of students in relation to conversations with patients is made very clear in handbooks and is made very clear that students must not give advice to patients.

	<p>The team was satisfied that this standard was met.</p>
<p>Standard 2 – Monitoring, review and evaluation of initial education and training</p> <p>The quality of pharmacy education and training must be monitored, reviewed and evaluated in a systematic way.</p>	<p>The quality assurance of teaching, learning and assessment within the University is one remit of the Teaching and Learning Support Office (TLSO), which is part of the Directorate for the Student Experience, and which works closely with the Vice-President (Teaching, Learning and Students), Associate Vice-Presidents, and with faculties and schools. Within the School, the strategic management of teaching (see also standard 8) is led by a Teaching Executive and the operational management by the Teaching and Learning Committee, both of which report to the School Board. The quality assurance of teaching, learning and assessment includes an annual monitoring of the programme and a monthly student experience action plan (SEAP); The School’s annual monitoring report includes a summary, the SEAPs, areas of good practice, areas for improvement and an outline of action required by the School. Individual modules/units are reviewed through a meeting of all members of staff who teach on that unit; these reviews include the use of data obtained from unit review questionnaires. The University compiles an annual evaluation report covering quality-related issues arising from the annual evaluations across the faculties, and the faculties provide feedback to the schools. External examiners’ reports and data from the National Student Survey also feed into assessment of the programme quality. Quality assurance of community pharmacy placements involves visits to each site by the Community Placement lead, together with feedback obtained from both students and placement mentors; placement mentors are supported by a tutor handbook and can contact the Community Placement lead and the placements administrator for advice. Hospital clinical placements are delivered by a team of honorary Clinical Tutors based at three local NHS acute teaching trusts; these tutors work with the academic unit leaders to plan, develop, deliver and assess the clinical placements. The tutors undergo a structured induction programme, meet regularly as a team and deliver the same learning objectives across all sites. In collaboration with academic staff, the tutors prepare an Integrated Professional Practice Handbook for each year group; these contain learning aims and objectives for each placement, case studies and associated exercises as well as learning resources and assessment guidelines. Evaluation uses the end-of-unit review, together with data from feedback questionnaires. Courses also undergo a periodic review every six years; this involves at least one external subject specialist and reviews the continuing validity and relevance of programme aims and intended learning outcomes, the quality of the student experience and the School's management of the programme. The School’s last periodic review was in 2010. Stakeholders input into the MPharm programme is achieved through the External Advisory Board (Professional), which includes representatives of industry and hospital and community pharmacy, and the External Advisory Board (Patient and Public), which includes representatives of expert patient groups, charitable organisations and carers’ groups. Students are represented on most School committees, the exceptions being those committees concerned with discipline or with student progress.</p> <p>The team was satisfied that this standard was met.</p>

<p>Standard 3 – Equality, diversity and opportunity</p> <p>Initial pharmacy education and training must be based on principles of equality, diversity and fairness. It must meet the requirements of all relevant legislation.</p>	<p>The evidence showed a strong University and School commitment to equality and diversity. The School holds an Athena Swan silver award and there are plans to submit for a gold. The School is committed to widening participation; this includes admission of students through School’s Foundation Year Programme or the University’s Manchester Access Programme (MAP); students admitted through these routes are tracked throughout their time on the course so that support can be provided if required. Students admitted through the Foundation Year have performed well on the MPharm programme. Training in equality and diversity is mandatory for all members of staff and this is monitored and renewed every three years. All undergraduate students are also now expected to complete online training in the first year, and there is specific training for student ambassadors, who are deployed, for example, during open days for applicants. Students are introduced to Athena Swan and professional aspects of equality and diversity during induction, and these aspects are reinforced throughout all four years. The case studies used in teaching reflect different patient backgrounds, and the ethos of equality and diversity is present throughout the course.</p> <p>The team was satisfied that this standard was met.</p>
<p>Standard 4 – Selection of students and trainees</p> <p>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.</p>	<p>The School provides applicants with the relevant information about the course and how to apply via the website. In addition to academic qualifications, admission to the programme takes account of health and good character checks. All suitably qualified UK and Republic of Ireland students who present a suitable personal statement and supportive references are invited for a formal interview, which includes a calculations assessment and an individual interview with an academic member of staff and a final year MPharm student. Offers are made on the basis of the calculations test and the interview. For overseas students, a timed, online set of questions comparable to the home interviews, ie include calculations, ethical dilemmas and general pharmacy knowledge. Students only have 1h to complete and must perform to a certain standard to be made an offer. They cannot log in and out therefore must complete the assessment once started., as with home students, offers are dependent on the outcome of the calculations test and the interview. The difference between the processes for assessing overseas applicants in relation to the interview, and especially concerning the calculations test, was regarded by the team as inequitable; this led to the recommendation (See ‘Summary and conclusions’) that the School should review the selection and admissions processes to ensure that they are fair and consistent for all students both home and overseas. Applicants for entry to the Foundation Year are interviewed in a similar manner as those applying to the MPharm, to which entry is achieved if the student meets certain performance targets during the Foundation Year.</p> <p>The team was satisfied that this standard was met.</p>
<p>Standard 5 – Curriculum delivery</p>	<p>The curriculum has been designed to enable students to integrate their learning, so that practice is underpinned by relevant and up to date science and to ensure that academic learning is integrated with that taking place during placements in the practice setting. Integration of science and practice is facilitated by team-based learning (TBL) workshops in years 1& 2 where students work in small groups to solve problems. Concepts are introduced in earlier years and are then taught in an</p>

<p>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 practice safely and effectively.</p>	<p>increasingly advanced and challenging way in later years, so that students can apply their knowledge in a progressively complex manner. Students are exposed to an environment that inculcates them with pharmacy professionalism through all four years of the course and are made aware of the way that they should behave, and what constitutes an impairment of their fitness to practise as pharmacy students. Students learn the characteristics, behaviours and expectations of pharmacy students and pharmacists. The welfare of the patient is explained and the primacy of patient safety is highlighted. Students gain experience of interacting with patients, carers and other healthcare professionals throughout the four years of the MPharm course; this experience includes placements in community pharmacy, which are just developing, as well as long-established clinical placements in hospitals. In addition to interacting with patients in hospital wards, students meet expert patients from whom they learn about living with chronic conditions, and also interact with simulated patients, with whom they learn and practise clinical skills before using them on real patients. Although students are exposed to other healthcare professionals in the first two years of the course, inter-professional education alongside other healthcare professional students, such as optometry, nursing, midwifery and medical students, does not take place until years 3 and 4; this does not fully meet criterion 5.6 which requires such activities to build progressively across the course. Accordingly, while acknowledging that inter-professional education is fully embedded in the last two years, the team imposed a condition that the School must develop and articulate a strategy for inter-professional education which should increase year on year.</p> <p>Assessments aim to ascertain whether students have achieved the learning outcomes described in standard 10 (see appendix 1), with the choice of assessments and their design being appropriate to particular learning outcomes. A mixture of assessments is used, including consolidated examinations to determine integration of knowledge, and objective structured clinical examinations (OSCEs) to assess competency, for example, in counselling and communication. There is also a dispensing examination, which is designed to mimic real life, where students must address legal and clinical issues and interact with simulated patients and prescribers; here, as well as in OSCE-type examinations, students must demonstrate safe practice, with failure to identify serious patient safety issues or actions resulting in significant patient harm resulting in failure of the assessment. However, the team learned that demonstration of unsafe practice such as communicating incorrect information in certain OSCEs, could be corrected immediately at the end of the examination, resulting in the student passing the assessment. The team was concerned that this opportunity for what amounted to an ‘instant resit’ did not equate with patient safety; a condition was therefore imposed (see ‘summary and conclusion’) that assessments of competency must be reviewed to ensure they are reliable, valid and consistent with best practice, in order to confirm that those students who fail aspects of the assessment are appropriately reassessed using an evidence-based approach to address patient safety issues.</p> <p>While the team was satisfied that criteria 5.1-5.5 and 5.7-5.10 were met, criteria 5.6 and 5.11 were not met and were the subject of conditions 1 and 2 (See ‘Summary and conclusions’).</p>
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<p>Standard 6 – Support and development for students and trainees</p> <p>Students and trainees must be supported to develop as learners and professionals during their initial education and training.</p>	<p>Students are allocated their own personal academic advisers with whom they meet at least twice a semester in small groups. All students have access to three academic advisers: a pharmacist, a medicine-focused and a patient-focused adviser. There are additional ‘super group’ meetings each semester where the students have the opportunity to meet with their three academic advisers. During the academic adviser sessions, students also engage with MPharm students from higher years, who act as peer mentors, and with Clinical Tutors. The School operates an open-door policy and students are able to consult their academic advisers during normal working hours and can make contact via e-mail at any time. They can also seek help and advice from year tutors, the senior academic adviser, the Director of Undergraduate Teaching and Learning and the Head of School. The School’s International Student Experience Officer is a point of contact for international students throughout their degree. There is also a Peer Assisted Study Scheme (PASS) that contributes to student support and development through small group study sessions on, for example, pharmaceutical calculations. Each PASS group session is overseen by at least two university-trained PASS Leaders, who are MPharm students from higher years. There are many other sources of support within the University, for example, for English language, disability, health, counselling, employability and careers; these were identified in the documentation.</p> <p>The team was satisfied that this standard was met.</p>
<p>Standard 7 – Support and development for academic staff and pre-registration tutors</p> <p>Anyone delivering initial education and training should be supported to develop in their professional roles.</p>	<p>Training programmes that support the academic staff include the Higher Education Academy-accredited New Academics Programme (NAP). This programme orientates new staff members, sets expectations, enables networking and provides support in teaching, research and continuing academic career progression. The NAP is also underpinned by a mentoring programme with training for both mentors and mentees. There is a programme of leadership, management, and supervisory training provided by the Faculty and a broad range of additional training opportunities offered through the University Staff Training and Development unit (STDU). Processes of the induction of new members of staff are provided by the University, the Faculty and the School. Faculty level induction provides insight into the Faculty and the resources that are available, including support services for teaching and research, initiatives and important contact details. New appointees are also introduced to Performance and Development Reviews, which are performed annually, and the Performance Enhancement Scheme, which is additionally undertaken by academic staff in the Faculty, and which provides a framework to drive continuous improvement in staff performance. Each new staff member is also assigned a teaching and a research mentor to provide specific guidance on the development of their teaching/research programmes. Integration of science and practice staff is facilitated by the team-based approaches used in teaching development within each year and through the ‘super-group tutorials’ described in standard 6. All staff members are invited to shadow clinical placements and to attend a community pharmacy external visit. Line managers are responsible for supervision, workload management, appraisal, personal support and career planning. Management of individuals is not restricted to one academic and staff members may seek advice from others with appropriate expertise when necessary. Workload is reviewed annually as a process that is complementary to Performance aEnhancement Schjeme, with time allocated for scholarship, and members of staff obtain personal support through a variety of sources, with their line managers and team leaders playing a key role.</p>

	<p>The team was satisfied that this standard was met.</p>
<p>Standard 8 – Management of initial education and training</p> <p>Education and training must be planned and maintained through transparent processes which must show who is responsible for what at each stage</p>	<p>The strategic management of teaching is led by a Teaching Executive and the operational management by the Teaching and Learning Committee, both of which report to the School Board. The Teaching and Learning Committee is supported by the Curriculum Committee in operationalising teaching and learning and by the Teaching Standards Committee and Examinations Board in the quality of teaching and learning, while the Staff-Student Liaison Committee supports the enhancement of the student experience and the Logistics Committee supports the management of teaching resources. Each strand of the MPharm programme has a lead to ensure vertical integration of teaching material. Each year of the programme also has a year tutor, who, as well as being responsible for the pastoral care of the students in that year, also oversees the teaching of that year to ensure horizontal integration. Attendance is routinely monitored and students must attend a minimum of 80% of practical classes, tutorials, workshops and course tests over the course of the academic year. Hospital clinical placements are delivered at Central Manchester University Hospitals NHS Trust, Salford Royal Hospital NHS Foundation Trust, University Hospital of South Manchester NHS Foundation Trust, Stepping Hill Hospital and the Christie Hospital. The placement teams, comprising academic staff together with an NHS link person, are responsible for ensuring the successful delivery of these individual placements. An academic lead, working with placement mentors, is responsible for community pharmacy placements, including their quality assurance.</p> <p>The team was satisfied that this standard was met.</p>
<p>Standard 9- Resources and capacity</p> <p>Resources and capacity are sufficient to deliver outcomes.</p>	<p>The University, Faculty and School operate transparent resource allocation systems within the annual planning cycle, which engages the School in strategic planning, 5-year forecasting, annual budget setting and management accounting, supported by School accountants. All income flows through the School, which contributes between 31-36% of its core income to centrally-provided professional support services and facilities. Planning and budget lines are used for all academic and professional support staff, new and replacement posts, and non-pay (consumable, minor and capital equipment). The School staff/student ratio was 13.9:1 in December 2014, and two new lecturers in pharmaceuticals took up their posts in January 2015, with funding for a further lectureship in stratified medicine having been secured; several clinical tutors are also seconded into the School. In addition to the budget, the School can bid annually to the Faculty for additional funding; since 2012, the School has received an additional £1.39M to support investment in estates and equipment. Business cases to support staff appointments (at all levels) use workload data. Despite major financial hits due to overall loss of research income and the impact of national insurance and pensions costs, the University is in a very strong position going forward, with the five-year plan showing a good cash position, with a strong cash-flow and headroom for investment in staff and in the estate; there will be a £1 billion investment in estates, of which £400 million is already in place. The University operates a devolved financial model, so that money remains where it is earned. For example, because of its success, the School will</p>

	<p>benefit from funding earned as a result of the Research Excellence Framework. While the budget is scrutinised, money coming back to the School can be spent as the School wishes if the expenditure can be justified through a strong business case. Additionally, the School can propose cases for capital expenditure to the University's Capital Finance Committee. The School currently has 58 (46.3 FTE) academic members of staff comprising 12 professors, 7 readers, 11 senior lecturers, and 28 lecturers, of whom 25 are GPhC registered; additionally, there are two senior lecturers and four lecturers (including one GPhC registrant) from the Faculty of Life Sciences. The MPharm is also supported by 26 clinical (4.4FTE) and honorary visiting tutors, all of whom are GPhC registered pharmacists. The learning resources available to the MPharm programme include the University library with its large collection of relevant books, e-books, journals and databases, and the Alan Gilbert Learning Commons, which is a state of the art study and learning centre, open 24/7 in term time, and which houses a variety of study environments. Students have access to extensive computing and IT facilities within the School and across the University. The Manchester Pharmacy School occupies approximately 6000 m² of accommodation of the Stopford building, which is a shared resource with the Schools of Medicine and Life Sciences. The facilities include the Clinical Skills Suite used for interactive learning and patient simulation, 6 lecture theatres, over 20 rooms for small group teaching, a 100 place specialised laboratory used for dispensing, extemporaneous formulation, medicines design and research project classes, three consultation rooms with camera and recording facilities for feedback and an electronic prescribing suite with 90 computers, also used as a teaching cluster for e-learning and e-assessment.</p> <p>The team was satisfied that this standard was met.</p>
<p>Standard 10 - Outcomes</p>	<p>The team scrutinised the standard learning outcomes (see appendix 1) through discussed with the teaching staff. Rather than examining each of the 58 outcomes in these sessions, nine outcomes were selected for detailed discussion. The outcomes chosen were 10.1.h, 10.2.1.a, 10.2.1.e, 10.2.1.h, 10.2.2.c, 10.2.3.b, 10.2.4.c, 10.2.5.b and 10.2.5.c. The University of Manchester staff members were unaware of the outcomes to be discussed before the meeting. Additional outcomes were covered in discussions addressing the various standards 1-9 and by the team's scrutiny of the documentation. For each of the nine outcomes scrutinised in detail, the evidence provided by the discussions with the staff, along with other evidence provided with the documentation, gave the team 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.</p> <p>The team was satisfied that this standard was met.</p>
<p>Indicative Syllabus</p>	<p>The team was content with the School's use of the Indicative Syllabus to inform its curriculum.</p> <p>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</p>

Summary and conclusions

The team has agreed to recommend to the Registrar of the General Pharmaceutical Council that the MPharm degree delivered at the University of Manchester should be reaccredited for a full period of 6 years with a 3 year interim visit. This is subject to two conditions and the team has made one recommendation

Conditions:

- i. The School must develop and articulate a strategy for inter-professional education which should increase year on year. The team acknowledges that the IPE in years 3 and 4 is clearly embedded and meets the definition of IPE, namely, students in healthcare professions learning with, from and about one another; however the activities in years 1 and 2 are not currently consistent with this definition. A revised strategy must be submitted to the GPhC for review by the accreditation team. The deadline for meeting this condition is 13 May 2016. This is to meet criterion 5.6
- ii. The assessment of competency (OSCEs) must be reviewed to ensure they are reliable, valid and consistent with best practice, in order to confirm that those students who fail aspects of the assessment are appropriately reassessed using an evidence-based approach to address patient safety issues. This must be submitted to the GPhC for review by the accreditation team. The deadline for meeting this condition is 1 September 2015. This is to meet criterion 5.11.

Recommendation:

The team recommends that the School should review the selection and admissions processes to ensure they are fair and consistent for all students both home and overseas. The team considers that the current differences in the processes for home and overseas students are not equitable. This relates to standard 4.

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 reaccreditation 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:

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 is not a guarantee of a placement for a pre-registration year or of future employment as a pharmacist.

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 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	<i>Does</i>
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	<i>Knows how</i>
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	<i>Does</i>
10.1.d Apply the principles of clinical governance in practice	Knows how	<i>Does</i>
10.1.e Demonstrate how the science of pharmacy is applied in the design and development of medicines and devices	Shows how	<i>Knows how</i>
10.1.f Contribute to the education and training of other members of the team, including peer review and assessment	Shows how	<i>Does</i>
10.1.g Contribute to the development of other members of the team through coaching and feedback	Knows how	<i>Shows how</i>
10.1.h Engage in multidisciplinary team working	Knows how	<i>Does</i>
10.1.i Respond appropriately to medical emergencies, including provision of first aid	Knows how	<i>Shows how</i>

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	<i>Does</i>
b. Access & critically evaluate evidence to support safe, rational & cost effective use of medicines	Shows how	<i>Knows how</i>
c. Use the evidence base to review current practice	Shows how	<i>Does</i>
d. Apply knowledge of current pharmacy-related policy to improve health outcomes	Knows how	<i>Shows how</i>
e. Collaborate with patients, the public and other healthcare professionals to improve patient outcomes	Knows how	<i>Shows how</i>
f. Play an active role with public and professional groups to promote improved health outcomes	Knows how	<i>Knows how</i>
g. Contribute to research & development activities to improve health outcomes	Knows how	<i>Knows how</i>
h. Provide evidence- based medicines information	Shows how	<i>Does</i>

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	<i>Shows how</i>
b. Identify inappropriate health behaviours and recommend suitable approaches to interventions	Shows how	<i>Does</i>
c. Instruct patients in the safe and effective use of their medicines and devices	Shows how	<i>Does</i>
d. Analyse prescriptions for validity and clarity	Shows how	<i>Does</i>
e. Clinically evaluate the appropriateness of prescribed medicines	Shows how	<i>Does</i>
f. Provide, monitor and modify prescribed treatment to maximise health outcomes	Shows how	<i>Does</i>
g. Communicate with patients about their prescribed treatment	Shows how	<i>Does</i>
h. Optimise treatment for individual patient needs in collaboration with the prescriber	Shows how	<i>Does</i>
i. Record, maintain and store patient data	Shows how	<i>Does</i>
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	<i>Does</i>

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	<i>Shows how</i>
10.2.3.b. Apply pharmaceutical principles to the formulation, preparation and packaging of products	Shows how	<i>Shows how</i>
10.2.3.c. Verify safety and accuracy utilising pharmaceutical calculations	Does	<i>Does</i>
10.2.3.d. Develop quality management systems including maintaining appropriate records	Shows how	<i>Shows how</i>
10.2.3.e. Manage and maintain quality management systems including maintaining appropriate records	Shows how	<i>Does</i>
10.2.3.f. Procure and store medicines and other pharmaceutical products working within a quality assurance framework	Knows how	<i>Does</i>
10.2.3.g. Distribute medicines safely, legally and effectively	Knows how	<i>Does</i>
10.2.3.h. Dispose of medicines safely, legally and effectively	Knows how	<i>Does</i>

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

10.2.4 Working with patients and the public

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

10.2.5 Maintaining and improving professional performance

Learning outcome	MPharm	<i>Pre-reg</i>
a. Demonstrate the characteristics of a prospective professional pharmacist as set out in relevant codes of conduct and behaviour	Does	<i>Does</i>
b. Reflect on personal and professional approaches to practice	Does	<i>Does</i>
c. Create and implement a personal development plan	Does	<i>Does</i>
d. Review and reflect on evidence to monitor performance and revise professional development plan	Does	<i>Does</i>
e. Participate in audit and in implementing recommendations	Knows how	<i>Shows how</i>

f. Contribute to identifying learning and development needs of team members	Knows how	<i>Does</i>
g. Contribute to the development and support of individuals and teams	Knows how	<i>Does</i>
h. Anticipate and lead change	Knows how	<i>Shows how</i>

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 pharmaceuticals, 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)*