Reaccreditation of a Master of Pharmacy degree course (MPharm)

Keele University

Report of a reaccreditation event, 4-5 December 2014

Introduction

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

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

Background

The MPharm programme at the University of Keele is delivered by the School of Pharmacy, one of four Schools in the Faculty of Health. Following a successful Step 2 visit in January 2005, the MPharm progressed through to final accreditation by the Royal Pharmaceutical Society of Great Britain, the then accrediting body, in May 2010. On that occasion the accreditation was subject to one condition and the team had also made one recommendation. The condition was that the University was required to map the learning outcomes of the 120 credit modules with the assessment for each year of the course. This was imposed because the major revisions already made to Level I of the programme, and that were being made to Levels 2, 3 and 4, had not allowed the team a clear view of how the learning outcomes at each level mapped on to the corresponding assessments. This mapping had been undertaken and submitted by the required deadline.

The team had also recommended that the School should give serious consideration to reviewing the timetabling of the project to ensure that the same amount of time is available to each student. This will ensure consistency and transparency for both students and staff. In response to this recommendation, the School had agreed that Mondays and Fridays would be blocked out in the timetable for all elective activities for stage 4 students ensuring parity of time availability. This came into force in September 2012. It was also agreed that an activity log should be kept by all project students.

Documentation

The provider submitted submission documentation to the GPhC in line with agreed timescales and a pre-visit took place at the Keele University on 7 November 2014. During the pre-visit the schedule of meetings and timings for the reaccreditation event were confirmed and the GPhC requested that one additional document (External examiners reports, 2013/14) be submitted ready for the event.

The event

The event began with a private meeting of the accreditation team and GPhC representatives on 3 December 2014. The remainder of the event took place on site at the Keele University on 4-5 December 2014, and comprised a series of meetings with staff of the University and included a tour of the University facilities. The team also met a group of 24 students comprising two from year 1, three from year 2, five from year 3, nine from year 4 and five alumni. These students were volunteers who had responded to an e-mail asking for student availability on the dates of the visit.

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 Brenda Costall	(Academic) Professor of Neuropharmacology, former Head of School of Pharmacy, University of Bradford
Professor Barrie Kellam	(Academic) Professor of Medicinal Chemistry, University of Nottingham
Mrs Barbara Wensworth	(Pharmacist) Previous hospital Pharmacist, Freelance Consultant Pharmacist, Lecturer, External Verifier, assessor and writer
Mrs Gail Curphey	(Pharmacist) Pharmacy Consultant
Miss Sabina Khanom	(Pharmacist) Patient Safety Lead (Primary Care), NHS England
Mr Scott Downham	(Pharmacist - recently registered) Clinical Pharmacist, Guys and St Thomas' NHS Foundation Trust
Mrs Leonie Milliner**	(Lay member) Chief Executive, Association for Nutrition

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 7 November 2014

** was able to attend only on 5 December; however, Ms Milliner had submitted a series of questions based on the documentation and these had been incorporated into the questions asked by other members of the team.

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.	The documentation described the quality assurance and fitness to practise mechanisms that are in place to maintain patient safety and to ensure that students who pose a safety risk do not progress through the MPharm programme; the network provided for both personal and academic support for students was also described. Students are introduced to the GPhC's Code of Conduct for Pharmacy Students, and teaching throughout emphasises professionalism and patient safety; examples of how this is achieved were presented in the documentation. While students are in contact with patients or members of the public, they are appropriately supervised at all times by pharmacists. Students learn and develop initially in a safe environment, with clinical activities increasing as the course progresses, with gradual and progressive introduction to real-life pharmacy environments, beginning with observational hospital and community placements, leading to participation in teaching sessions at ward-level in hospitals. The School has Standard Operating Procedures in place to manage student contact with patients, in order to ensure that they practise safely. The procedures for undertaking health and good character checks were also described in the documentation and explored in discussions with the staff and students of the School, along with the ways in which professionalism is embedded in the course, and how students are made aware of professional standards. **The team was satisfied that this standard was met.**

Standard 2 – Monitoring, review and evaluation of initial education and training The quality of pharmacy education and training must be monitored, reviewed and evaluated in a systematic way.	The documentation detailed the quality assurance processes for teaching, learning and assessment, and the processes for evaluating the quality of placements in community and hospital pharmacy. The quality of teaching learning and assessment is evaluated through issues raised at the Staff Student Liaison Committee (SSLC), through annually completed teaching evaluation questionnaires and through issues raised by its panel of five external examiners. The School also produces a Curriculum Annual Review and Declaration (CARD) report each year; this summarises the student profile, student evaluations of the course, programme changes, and curriculum development. After approval within the Faculty, this report is sent to the University's Quality Assurance Committee for final oversight. The feedback and appraisal systems for students through personal tutors and professional mentors were described in the documentation, along with the ways in which students are supervised, for example, in laboratory and dispensing sessions and during placements. The documentation also described the educational resources and capacity available to the MPharm programme. **The team was satisfied that this standard was met.**
Standard 3 – Equality, diversity and opportunity Initial pharmacy education and training must be based on principles of equality, diversity and fairness. It must meet the requirements of all relevant legislation.	The University's Equality and Diversity Strategy was described in the documentation, along with how the University collects and uses equality and diversity data. All staff members undertake mandatory equality and diversity training as part of their induction upon employment, followed by biennial mandatory updates, which are available as an online learning package. Students who are involved with the admissions interview process (see standard 4) receive tailored equality and diversity training and the main student body is introduced to equality and diversity within the teaching of Law, Ethics and Practice teaching in the first year while the Equality Act 2010 is taught in the third year. During the event, the team learnt that the School assures that external bodies involved in teaching have their own approach to equality and diversity, or, if necessary, undertake the online training provided by the University. The School has achieved an Athena Swan Bronze award and is applying for a Silver Award. **The team was satisfied that this standard was met.**
Standard 4 – Selection of students and trainees Selection processes must be open, fair and comply with relevant legislation. Processes must ensure students and trainees are fit to practise at the point of selection. Selection includes recruitment and admissions.	The selection processes and criteria, and how these are made known to prospective applicants, were described in the documentation and discussed with the staff of the School. The admission process includes an individual interview, conducted by a member of staff and a student or former student. The mechanisms for ensuring good character, including DBS checks, and compliance with the School's occupational health requirements were also described. The team was told of the mechanisms in place to ensure that students' academic progress was not impeded if there was any delay in confirming their health and good character status. **The team was satisfied that this standard was met.**

Standard 5 – Curriculum delivery The curriculum for MPharm degrees and the pre-registration scheme must deliver the outcomes in Standard 10. Most importantly, curricula must ensure students and trainees practice safely and effectively.	The documentation and various meetings with staff and students demonstrated that the MPharm programme is delivered in a way that integrates science with the practice of pharmacy, with this integration being achieved through the use of a single 120-credit module in each year; this allows students to develop their understanding of the relevance of, and links between, each of the pharmaceutical disciplines that underpin the knowledge of a pharmacist. The programme has been revised, with the revised course commencing in 2015, and the remainder of the course being rolled out, culminating in the first iteration of the revised final year starting in September 2018. The new programme will be very similar to the current one, with the major differences being in the order in which material is delivered. The main impetus to this change is that it will allow the smooth transition to a 5-year programme, in which pre-registration training in practice will eventually be integrated with academic study in the University. The team explored with the School staff and students how the integration of science and practice is achieved and how the assessments demonstrate integrated learning, as well as showing that the students will be able to practise safely and effectively on graduation. In the latter context, for all assessments that determine competency related directly to patient care, pass criteria will ensure that patient safety is not compromised, with students failing if any of their actions may have resulted in harm to patients or the public. The course includes practical experience of working with patients, carers and other healthcare professions across all four stages of the course. This comes under the general heading of 'learning through practice' and includes hospital and community pharmacy visits and placements, simulated ward rounds using the Keele Active Virtual Environment (see standard 9), teaching of communication and counselling skills, interaction with virtual, simulated, expert and actual patients, role play, a public health campaign, and inter-professional education with students of nursing, midwifery, medicine, physiotherapy and biomedical science. The team learnt that the provision of placement experience, especially in community pharmacy, is currently undergoing review to enhance this provision. **The team was satisfied that this standard was met.**
Standard 6 – Support and development for students and trainees Students and trainees must be supported to develop as learners and professionals during their initial education and training.	The range of mechanisms available to support student development was described in the documentation and discussed with both staff and students. These support mechanisms include the personal tutors, whose main function is to provide appropriate pastoral care for students, as well as monitoring attendance, providing feedback on assessment performance and awarding, or removing, Professional Activity Credits (PACs); this PAC system is designed to encourage students to participate in extra-curricular activities, as well as to fully engage with the course. Staff members operate an 'open door' policy, allowing all students to seek advice or assistance from any member of staff throughout the teaching day. Students also have professional mentors to guide them through the process of reflection and self-development for completion of their Professional Development Portfolios. A 'buddy' system also operates to provide peer-to-peer support in academic and personal matters. The VLE (Keele Learning Environment) supports students by acting as a repository for teaching materials and reading lists, and as an active teaching tool. Support is available for written communication and mathematical skills through the Student Support and Development Services, and there is a comprehensive careers advice service. The team learnt how feedback is provided to students and how attempts continue to improve feedback, especially in light of data emerging from the National Student Survey and in response to comments and suggestions from students.

	The team was satisfied that this standard was met.
Standard 7 – Support and development for academic staff and pre-registration tutors Anyone delivering initial education and training should be supported to develop in their professional roles.	The mechanisms in place to support members of staff who deliver the MPharm were described in the documentation and discussed with members of staff. The University operates an annual Staff Performance Review and Enhancement (SPRE) programme for all members of staff. This process provides regular and structured opportunities to explore support and development needs and to explain how these will be provided, as well as ongoing communication, feedback and dialogue between managers and their staff. All new members of academic staff are required to complete the Teaching and Learning in Higher Education Programme (TLHEP), which is recognised by the Higher Education Academy for award of Fellowships on successful completion. The programme also provides a platform on which candidates can build a continuing professional development portfolio. Each new member of staff is allocated a teaching mentor whose function is to demonstrate how to integrate a trainee's particular subject matter into the pharmacy curriculum and to observe teaching sessions, tutorials and assessment exercises undertaken by the trainee. The team explored the staff workload in discussions with members of staff, especially in the light of recent staff changes, the high level of support that the staff provides for students, their opportunities for research and the potential increase in activities in the School, for example, in relation to the development of new degree programmes. Workload allocation for all members of academic staff incorporates time for scholarly activity, including research and continuing professional development. There are regular reviews of what staff members do, their current workload and their long-term plans, including what blocks of time are needed for their teaching and research. The staff acknowledged that there had been considerable upheaval due to staff vacancies. However, the administrative support had been improved and academic staff can delegate effectively to these key people. Additionally, new appointments had been made. The department is small and there is a collegiate approach with all staff members cooperating. The team recognised as a strength the collegiate nature of the staff and the shared commitment to the development and delivery of the MPharm degree and the student support provided by the School. However, while accepting the Head of School's assurances that the planned expansion in activities in the School are to support the sustainability of the MPharm degree, the team remained concerned about the academic staff workload (criterion 7.3.b) and the resilience of the system to cope with these increased activities. Thus criterion 7.3.b currently is not met and the team therefore imposed a condition that the School must produce a definitive resource plan to reflect the expansion of the pharmacy provision at Keele; it is essential that these plans and resources reflect a realistic workload for the academic staff and are clear and transparent. **With the exception of criterion 7.3.b, the team was satisfied that this standard was met.**

Standard 8 – Management of initial education and training	The School of Pharmacy is one of four academic schools within the Faulty of Health. The line management structure within the School of Pharmacy was detailed in the documentation, which also described the course review process. The governance of the School is through a number of committees, with the MPharm Course Committee (MCC) agreeing course changes and receiving feedback from the Staff Student Liaison Committee (SSLC); the MCC reports to the School Learning and Teaching Committee, which, in turn, reports to the School Management Board chaired by the Head of School. For each stage of the course there is an academic lead whose responsibilities include production of examination papers. The School of Pharmacy operates from both dedicated teaching facilities and teaching facilities shared with other Schools within the University. **The team was satisfied that this standard was met.**
Education and training must be planned and maintained through transparent processes which must show who is responsible for what at each stage	
Standard 9- Resources and capacity Resources and capacity are sufficient to deliver outcomes.	The human resources, accommodation and learning facilities for delivering the MPharm programme were described in the documentation and discussed in various meetings with the staff of the School, including the Head of the School, who has sole responsibility for the financial resources within the School. The staff profile spanning the various disciplines was described in the documentation, along with the breadth of experience of members of staff. There are 27.6 FTE members of the academic staff (including two technicians) and the School also has a pool of sessional teaching staff, including Honorary Professors and other experts representing the wider NHS, pharmaceutical industry, and healthcare provision in the UK. 18 members of staff are GPhC registered and one member of staff is registered with the GMC; all of these individuals act as professional mentors for the purposes of the Professional Development Portfolio, as described under standard 6. The laboratory and other facilities available for the MPharm include the Pharmacy Practice Suite (including a mock pharmacy and bespoke dispensary fittings), teaching laboratories for pharmaceutics, chemistry, microbiology, biochemistry and physiology, pathology and pharmacology, and the Keele Active Virtual Environment (KAVE); the KAVE is a physical room where a three dimensional 'stereoscopic' visual display creates a computer generated virtual environment, allowing students, for example, to interact with avatar patients in a 24-bed, 4 bay virtual ward. As described under standard 7, while accepting the Head of School's assurances that the planned expansion in activities in the School are to support the sustainability of the MPharm degree, the team remained concerned about the academic staff workload and the resilience of the system to cope with these increased activities. Thus, currently, criterion 9.1.a is not met and the team therefore imposed a condition that the School must produce a definitive resource plan to reflect the expansion of the pharmacy provision at Keele; it is essential that these plans and resources reflect a realistic workload for the academic staff and are clear and transparent. **With the exception of criterion 9.1.a, the team was satisfied that this standard was met.**
Standard 10 - Outcomes	The team scrutinised the learning outcomes by discussions with the teaching staff. Rather than examining each of the 58 outcomes (see appendix 1), a selection of eight outcomes was chosen for detailed discussion. The outcomes selected were 10.1.d, 10.2.1b, 10.2.2a, 10.2.2.h, 10.2.3a, 10.2.4.c, 10.2.4 h, and 10.2.5d. 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 eight 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 14% of the total outcomes, the team was confident that all other outcomes would be similarly met. This view was supported by the documented material for each of the other outcomes, which had also been scrutinised by the team. **The team was satisfied that this standard will be met.**
Indicative Syllabus	The team was content with the School's use of the Indicative Syllabus to inform its curriculum. The team agreed that the MPharm degree met the requirements of Directive 2005/36/EC of the European Parliament and of the Council on the recognition of professional qualifications for the initial education and training of pharmacists.

Summary and conclusions

The team has agreed to recommend to the Registrar of the General Pharmaceutical Council that the MPharm degree delivered at Keele University should be reaccredited for a full period of 6 years with a 3 year interim visit subject to one condition.

Condition
The School must produce a definitive resource plan to reflect the expansion of the pharmacy provision at Keele. While the team accepts the Head of School's assurances that these developments are to support the sustainability of the MPharm degree, it is essential that these plans and resource reflect a realistic workload for the academic staff and are clear and transparent. This must be submitted to the GPhC and approved by the accreditation team. The deadline to meet this condition is 5 March 2015.

Strengths:
The team would like to recognise the collegiate nature of the staff and the shared commitment to the development and delivery of the MPharm degree and the student support which was highlighted by the students at the meeting yesterday. The team see this as a strength of the course.

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:
Part 5 Education, training and acquisition of experience and continuing professional development, Information to be given by institutions or other providers, 46. …

(3) Whenever required to do so by the Council, any institution or other provider to which this article applies must give to the Council such information and assistance as the Council may reasonably require in connection with the exercise of its functions under this Order.

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

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

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

Caution: Preregistration and employment as a pharmacist:

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

Following the above event, relevant documentation was submitted to the GPhC and the accreditation team agreed that this was met satisfactorily. The Registrar of the General Pharmaceutical Council agreed with the accreditation team's recommendation and approved Keele University MPharm degree for reaccreditation a further period of 6 years. Reaccreditation will take place in six academic years' time; with an interim visit in three academic years' time (2017/18).

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

10.2 The skills required in practice

10.2.1 Implementing health policy

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

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

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

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

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

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

10.2.4 Working with patients and the public

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

10.2.5 Maintaining and improving professional performance

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

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

Indicative syllabus

A1.1 How medicines work

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

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

Pharmacology, pharmacokinetics & pharmacodynamics

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

Pharmaceutical technology including manufacturing & engineering science

- Biotechnology
- Manufacturing methods
- Quality assurance processes
- Sterilisation and asepsis
- Environmental control in manufacturing

Formulation and material science

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

A1.2   How people work

Normal & abnormal structure & function

- Nutrition
- Physiology
- Pathology
- Infective processes

Sociology

- Social and behavioural science

Health psychology

- Health promotion
- Disease prevention
- Behavioural medicine

Objective diagnosis

- Differential diagnosis
- Symptom recognition
- Diagnostic tests

Epidemiology

- Aetiology and epidemiology of (major) diseases

A1.3 How systems work

Healthcare management

- Public health
- Organisations: NHS,DH, govt priorities
- Other professionals
- Health care systems

Evidence-based practice

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

Professional regulation

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

Medicines regulation

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

Clinical governance

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

Clinical management

- Disease management
- Chronic medicines management
- Medicines use review
- Care planning

Workplace Regulation

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

A1.4 Core and transferable skills

Professionalism

Research and research methods

Critical appraisal
- Audit and learning from errors

Problem solving
- Study skills
- Team-working skills

Clinical decision making
- Leadership skills

Accurate record keeping

Reflective practice (incl. continuing professional development)

Effective communication
- Interpersonal skills
- Medical terminology

Interpret & interrogate clinical data

Analyse & use numerical data

Pharmaceutical numeracy

Technological literacy

A1.5   Attitudes and values

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