General Pharmaceutical Council

Master of Pharmacy degree (MPharm)

Durham University

Report of a step 7 part 1 accreditation event

January 2017

Event summary and conclusions

Provider	Durham University
Course	Masters of Pharmacy degree (MPharm)
Event type	Accreditation
Step	Step 7 Part 1
Event date	18-19 January 2017
Accreditation period	Full period of accreditation until the Durham University MPharm degree is taught out at Newcastle University NB. Accreditation is confirmed after a satisfactory Step 7 Part 2 event has taken place in June 2017
Outcome	Approval The accreditation team agreed to recommend to the Registrar of the General Pharmaceutical Council (GPhC) that Durham University be fully accredited as a provider of an MPharm degree, subject to a Step 7 Part 2 visit in June 2017. Following a satisfactory outcome of this visit Durham University MPharm graduates will be permitted to apply to enter pharmacist pre-registration training in Great Britain. NB. The delivery of the accredited Durham University MPharm degree from 2017-18 until all registered students have graduated, or have ceased to be eligible to graduate, will be by arrangement with Newcastle University in a manner to be determined by the two institutions. This is subject to the availability of resources to deliver the curriculum in the manner described to the team. The GPhC will develop a future visit schedule as part of the engagement process with the University during this period of transfer.
Conditions	There were no conditions
Standing conditions	Please refer to Appendix 1
Recommendations	No recommendations were made
Registrar decision	Following the event, the Registrar of the GPhC accepted the accreditation team's recommendation and approved full accreditation as a provider of an MPharm degree, subject to a satisfactory Step 7 Part 2 visit in June 2017
Key contact (provider)	Professor Andrew Husband
Accreditation team	Professor Stephen Denyer, (Team leader) Pro Vice-Chancellor (Education and Student Experience), University of Brighton Professor Brenda Costall, (Academic) Professor of Neuropharmacology, Former Pro-Vice-Chancellor Planning, Research and Resources, Deputy Vice-Chancellor and Head of Pharmacy, University of Bradford Dr Ruth Edwards, (Academic), Senior Lecturer and MPharm Course Leader,

	Robert Gordon University Mrs Gail Fleming, (Pharmacist), Head of Pharmacy, Health Education England (London and South East) Mr Owen Wood, (Pharmacist - recently registered), Humanitarian Pharmacy Adviser, Save the Children UK Ms Leonie Milliner, (Lay member) Chief Executive, Association for Nutrition
GPhC representative	Ms Joanne Martin, Quality Assurance Manager, GPhC
Rapporteur	Professor Brian Furman, Emeritus Professor of Pharmacology, University of Strathclyde

Introduction

Role of the GPhC

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). This accreditation 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'.

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.

The powers and obligations of the GPhC in relation to the accreditation of pharmacy education are legislated in the Pharmacy Order 2010. For more information, visit: http://www.legislation.gov.uk/uksi/2010/231/contents/made

Step 7 accreditation event

The MPharm degree accreditation process involves seven steps before full accreditation is granted. The final step (Step 7) is made up of two parts. The first part of the two-part Step 7 accreditation event involves a visit to the University by the accreditation team to review the suitability of the programme for full accreditation. In reaching its conclusion, the accreditation team must make two separate judgements: First, whether or not the University meets the criteria for a new provider delivering a new MPharm degree; and, second, whether or not the University meets the criteria for an established provider delivering an existing MPharm degree.

The second part of the Step 7 accreditation event involves a return visit to the University by the team leader and the GPhC's Quality Assurance Manager to confirm the appropriate conduct of the assessment process for the current academic year. At that meeting, the views of external examiners will be sought.

Background

Durham University had approached the GPhC in April 2010 with a view to entering the process for

accrediting a new MPharm degree to be delivered by the School of Medicine, Pharmacy and Health (formerly the School of Medicine and Health), which comprises the Division of Pharmacy and the Division of Medicine. Following a successful step 1 event in September 2011, the University appointed a Director of Education to develop the programme with a plan to admit the first cohort of students in 2013. The University progressed successfully through step 2 (June 2012) and step 3 (February 2013) events, without any conditions or recommendations, subsequently admitting its first students in October 2013. Successful step 4, step 5 and step 6 events took place in June 2014, January 2015 and December 2015 respectively, again without any conditions or recommendations, thus allowing progression to step 7 of the accreditation process. Step 7 comprises two parts during the first part of which the team must make two separate judgements. These are first, whether or not the University meets the criteria for a new provider delivering a new MPharm degree, and second, whether or not the University meets the criteria for an established provider delivering an existing MPharm degree. However, judgement on the latter was complicated by the decision made jointly by Durham and Newcastle universities in July 2016 that Durham's School of Medicine, Pharmacy and Health, including the Division of Pharmacy and its provisionally accredited MPharm degree, will be transferred to Newcastle with effect from the 2017/18 academic session. As a result of this, the GPhC developed a modified and legally valid accreditation methodology, agreed by both institutions, to accommodate the transfer of an existing, provisionally-accredited MPharm degree to a new provider. This had allowed steps 1-3 of the accreditation process to be held as a single event at Newcastle University in October 2016; steps 1-3 cover all standards to ensure the preparedness of the institution for admission of students to an MPharm programme. At that event, the accreditation team had agreed to recommend to the Registrar that Newcastle University should be permitted to progress from step 3 to step 4 of the modified MPharm accreditation process; this had been subject to two conditions relating to making a decision on the School leadership, developing a complete risk analysis and contingency plan, and establishing an approved and collaborative contractual agreement with Durham University. The modified methodology permitted the team now to make determinations on how Durham University meets the criteria for an established provider delivering an existing MPharm degree, for example, by recommending monitoring the Durham MPharm degree being delivered at Newcastle for as long as the team considers appropriate. Accordingly, a step 7 event was scheduled for 2017 and the following constitutes a record of the first part of this event held in January.

Documentation

Prior to the event, the provider submitted documentation to the GPhC in line with the agreed timescales. The documentation was reviewed by the accreditation team and it was deemed to be satisfactory to provide a basis for discussion.

Pre-visit

In advance of the main visit, a pre-visit meeting was held by teleconference on 22 December 2016. The purpose of the pre-visit meeting was to prepare for the event, allow the GPhC and the university to ask any questions or seek clarification, and to finalise arrangements for the visit.

The event

The event began with a private meeting of the accreditation team and GPhC representatives on 18 January 2017. The remainder of the event took place onsite at Durham University, Queen's Campus, on 18--19 January 2017, and comprised a series of meetings with staff and students of the University.

Declarations of interest

There were no declarations of interest.

Key findings

Standard 1: Patient and public safety

The team was satisfied that all criteria relating to this standard are met. (See Appendix 2 for criteria)

The University has numerous mechanisms in place to ensure that students do not jeopardise patient and public safety. These include ensuring that students only undertake tasks in which they are competent, and that they are supervised appropriately to ensure that they practise safely; this applies especially to situations in which they are in direct contact with patients and members of the public, for example during placements in hospitals, community pharmacy and general medical practice. The programme delivery and assessment strategy are designed to enable students to learn, and then demonstrate, how they will perform a task in a practice or related environment. As the programme progresses, students are tested on various aspects of this type of work, including simple examination skills, history taking and the supply of prescriptions. During these tasks students interface with volunteer patients. This allows for a degree of reality, but fully addresses any risks to patients posed by undergraduate students. Any cause for concern is addressed through established mechanisms, and students who are identified as posing any risk to either public or patient safety would not be allowed to graduate with an MPharm degree, even if they had satisfied all academic requirements. Professionalism is introduced at the beginning and reinforced throughout, with students undergoing health and good character checks, and being fully familiar with the concepts of fitness to practise and with the relevant codes of conduct.

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

The team was satisfied that all criteria relating to this standard are met.

There are systems and processes in place for monitoring, reviewing and evaluating all aspects of the MPharm, including external placements undertaken by the students. These processes include an annual monitoring report into which is fed information such as reports from external examiners, student feedback from the Staff Student Consultative Committee (SSCC) and the Student Experience Committee, as well as from less formal 'town hall meetings'; there is also input from various stakeholders such as the placement providers. The annual monitoring report is scrutinised at School and Faculty level committees which ultimately report to the University's Education Committee and Quality and Standards Sub-Committee. These processes for monitoring, review and evaluation will continue when the programme is delivered at Newcastle.

Standard 3: Equality, diversity and fairness

The team was satisfied that both criteria relating to this standard are met.

The University remains committed to the principle of equal opportunities and collects data on race, gender, disability and age, as well as on pregnancy and maternity, and uses these data for policy development as appropriate. Recruitment data relating to diversity and equality allow for consideration of any imbalances in the broader staff profile and this information is monitored and reviewed through Faculty and School governance structures such as Faculty Board, the Board of Studies, and programme level meetings. The recruitment process itself also operates with a sound awareness of diversity and equality; all appointing panel members are trained in accordance with University guidance and all panels are required to have an appropriate gender balance. There are several mechanisms for training staff in

equality and diversity issues. All members of academic staff have completed an online training package, and staff members have also participated in additional bespoke training which provided a valuable understanding of the 2010 Equality Act. All staff members who are involved in either student admissions or in interviewing for new staff members must also undertake relevant training. Equality and diversity is introduced to the undergraduate students early in the course and is embedded throughout the programme as part of professionalism.

Standard 4: Selection of students

The team was satisfied that all criteria relating to this standard are met.

Potential applicants are provided with all the information required to enable them to make an informed application and the selection criteria are explicit; these criteria cover academic and other requirements, including appropriate school leaving qualifications, such as A-levels, and appropriate standards of attainment in English language and numeracy. Applicants must undergo health and good character checks. Due to the transfer of the MPharm programme to Newcastle University, the 2016/17 first year cohort will be the last students admitted through Durham University.

Standard 5: Curriculum delivery and student experience

The team was satisfied that all criteria relating to this standard are met.

The aim of the course is to provide a multi-disciplinary, integrated, research-led educational experience, producing graduates who are capable of systematic enquiry and application of their knowledge and skills to complex problems. The current academic year marks the first final year of the new programme, with the first students graduating in the summer of 2017. The general view among staff and students was that the broad aims had been achieved, with the students having been exposed to a curriculum in which science was integrated with practice, especially after the first year, and in which issues with which the students were faced became increasingly complex as they progressed through the course; in later years the students were dealing with complex patients suffering from multiple conditions and were required to undertake increasingly complex tasks. A major feature of the final year was the research project, which had been well received by both staff and students. Clinical skills sessions, together with the placements, for example, in community and hospital pharmacy and in non-traditional areas, such as hospices and prisons, and their inter-professional learning with students of medicine, nursing and dentistry, along with the research project, had given the students a high level of confidence as future pharmacists. There had been a strong emphasis on communication skills, and the intention now was to further develop these skills to ensure that students can communicate with patients empathically. Assessments are integrated and have been designed to ensure that the learning outcomes of standard 10 (see Appendix 2) have been achieved. Several different types of assessment are used, including objective, structured clinical examinations (OSCEs) at each level, and the assessments become increasingly complex across the years of the course. There is an emphasis on patient safety throughout and evidence of unsafe practice in assessments will result in failure.

Standard 6: Support and development for students

The team was satisfied that the one criterion relating to this standard is met.

The support mechanisms available to students at Durham include the mentorship scheme available through the college system, the students' academic advisers and a 'parenting system' whereby students in higher years of the course supported their juniors; there are also centrally administered University support mechanisms, such as the Careers, Enterprise and Employability Centre and support is available within the School to help students to obtain pre-registration training places. While the college mentoring scheme was valuable for some students in dealing with specific problems, the students' view was that this will not be a major loss when they are taught at Newcastle; transferring students will, however, retain their college membership until they graduate. The academic adviser scheme was regarded as very

valuable and students developed good relationships with their advisers, with whom they could readily make contact at any time, in addition to scheduled meetings throughout the year. The parenting system, which was run entirely by the students, worked very well, particularly for helping new students to integrate into the University. The students greatly appreciated the system and hoped very much that it would be continued after their move to Newcastle University. Currently, extensive support is being offered in view of the impending move to Newcastle; this includes the establishment of a hardship fund to provide assistance to those students who currently live at home, and structures are in place across the two universities to address continuing issues. In general, the students were very positive about the move to Newcastle, where they saw greater opportunities for social interaction, as well as for inter-professional learning and final year projects. The students very much hoped that all members of academic staff would transfer, as they believed that the success of the programme had been very dependent on the staff for whom the students had huge respect and with whom they had established a strong relationship.

Standard 7: Support and development for academic staff

The team was satisfied that all criteria relating to this standard are met.

The support mechanisms for the staff include a centrally facilitated formal induction process for new staff members who are also allocated a mentor to support them throughout their time with the University. There is a wide range of training opportunities provided by the University to support staff members to develop the skills and knowledge associated with their roles. The University has a designated Centre for Academic and Researcher Development (CAROD), which is responsible for organising and facilitating the delivery of a range of training and development opportunities. Newly appointed academic staff members are required to undertake a programme of initial professional development through obtaining a Postgraduate Certificate in Academic Practice, which on completion entitles staff members to apply for Fellowship of the Higher Education Academy. Academic staff engaged in the delivery of the MPharm programme are line-managed by the Head of School with appropriate support from the Dean of Pharmacy and the Programme Director. Any academics who are not pharmacists have clear lines of communication available to them to discuss professional issues, especially through the members of the staff team who are registrants. Support mechanisms are in place for the impending transfer to Newcastle University and staff members are well-informed about the details of the transfer. There is strong support from Newcastle for the integration of the Durham staff into the University and the staff are generally supportive of the move and enthusiastic about the opportunities it will bring.

Standard 8: Management of initial education and training

The team was satisfied that both criteria relating to this standard are met.

The programme is managed through the Head of School who delegates operational responsibility to the Dean of Pharmacy working with the Programme Director, and through the formal MPharm Programme Board, which includes all academic staff involved in the delivery of the programme as well as representative technical and administrative support staff. The Programme Director works alongside each of the Level Leaders who are responsible for the 120 credit module making up each year of the programme. The Programme Board works with a set schedule of business for the academic year, which allows for the definition of a clear schedule of responsibilities; meetings of the Board are timed such that they feed into both School and Faculty Education committees to allow an escalation of initiatives, issues or concerns. Going forward, the schedule of responsibilities for the Durham University MPharm award run at Newcastle University will be defined under the collaborative agreement between the two institutions.

Standard 9: Resources and capacity

The team was satisfied that all criteria relating to this standard are met.

Resources for the MPharm programme are overseen by the Faculty Pro-Vice-Chancellor who provides necessary assurance to the University Executive Committee through the University's governance structures and planning processes. The MPharm programme continues to operate within the structure of the agreed business plan; moving forward it will continue to be delivered in the context of the Newcastle University business plan and supporting legal agreements to facilitate delivery of the Durham University MPharm award at that institution. The MPharm programme delivery is supported by a team of academics that includes an appropriate mix of pharmacists and those with different backgrounds who provide a range of experiences and disciplines. The programme business plan identifies an academic staff recruitment strategy over the next five years and beyond to maintain an appropriate staff/student ratio. It is expected to continue to recruit as many pharmacists as possible to support the delivery of the programme, with the majority of the appointees within the pharmacy practice area expected to be GPhC registrants; it is intended that pharmacists will continue to make up at least 30% of the academic staff to ensure that students are appropriately advised and tutored. All members of academic staff are well qualified to supervise research. In addition to core staff, there are external contributions through engaging local specialist practitioners who contribute to the programme as appropriate. The ample physical and library resources currently available for delivery of the programme are planned to be appropriately replicated at Newcastle University.

Standard 10: Outcomes

The team was satisfied that all 58 outcomes relating to Standard 10 will be delivered at the appropriate level.

The team had selected five of the 58 outcomes for detailed discussion with members of staff; these were 10.2.1.a, 10.2.1.g, 10.2.1.h, 10.2.3.b, and 10.2.3.d (see Appendix 2). For each of these five outcomes the evidence provided by these discussions, along with other evidence provided with the documentation, gave the team confidence that these outcomes will be met at the required level; the team was confident that all other outcomes will 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.

Indicative syllabus

The team was satisfied 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.

Appendix 1 - Standing conditions

The following are standing conditions of accreditation and apply to all providers:

1. The record and report include other comments from the team, and providers are required to take all comments into account as part of the accreditation process. The provider must confirm to the GPhC that required amendments have been made.
2. The provider must respond to the definitive version of the record and report within three months of receipt. The summary report, along with the provider's response, will be published on the GPhC's website for the duration of the accreditation period.
3. The provider must seek approval from the GPhC for any substantial change (or proposed change) which is, or has the potential to be, material to the delivery of an accredited course. This includes, but is not limited to:
    a. the content, structure or delivery of the accredited programme;
    b. ownership or management structure of the institution;
    c. resources and/or funding;
    d. student numbers and/or admissions policy;
    e. any existing partnership, licensing or franchise agreement;
    f. staff associated with the programme.
4. The provider must produce and submit to the GPhC on an annual basis:
    a. requested data on student numbers and progression and degree awards;
    b. requested information about the extent of human and physical resources it enjoys for the delivery and support of the degree course.
5. The provider must make students and potential students aware that 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.
6. The provider must make students and potential students aware of the existence and website address where they can view the GPhC's accreditation reports and the timetable for future accreditations.
7. Whenever required to do so by the GPhC, providers must give such information and assistance as the GPhC may reasonably require in connection with the exercise of its functions. Any information in relation to fulfilment of these standing conditions must be provided in a proactive and timely manner.

Appendix 2 – Standards

GPhC standards for the initial education and training of pharmacists

NB. Information that is shaded grey or shown in grey italics is only applicable to those wishing to offer a 5-year MPharm degree with intercalated 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 and 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 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 should 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 learning resources 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
10.1.a	Recognise ethical dilemmas & respond in accordance with relevant codes of conduct and behaviour	**Shows how**
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**
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**
10.1.d	Apply the principles of clinical governance in practice	**Knows how**
10.1.e	Demonstrate how the science of pharmacy is applied in the design and development of medicines and devices	**Shows how**
10.1.f	Contribute to the education and training of other members of the team, including peer review and assessment	**Shows how**

10.1.g	Contribute to the development of other members of the team through coaching and feedback	**Knows how**
10.1.h	Engage in multidisciplinary team working	**Knows how**
10.1.i	Respond appropriately to medical emergencies, including provision of first aid	**Knows how**

10.2 The skills required in practice

10.2.1 Implementing health policy

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

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

Learning outcome		MPharm
10.2.2.a	Identify and employ the appropriate diagnostic or physiological testing techniques in order to promote health	**Knows how**
10.2.2.b	Identify inappropriate health behaviours and recommend suitable approaches to interventions	**Shows how**
10.2.2.c	Instruct patients in the safe and effective use of their medicines and devices	**Shows how**
10.2.2.d	Analyse prescriptions for validity and clarity	**Shows how**
10.2.2.e	Clinically evaluate the appropriateness of prescribed medicines	**Shows how**
10.2.2.f	Provide, monitor and modify prescribed treatment to maximise health outcomes	**Shows how**
10.2.2.g	Communicate with patients about their prescribed treatment	**Shows how**
10.2.2.h	Optimise treatment for individual patient needs in collaboration with the prescriber	**Shows how**
10.2.2.i	Record, maintain and store patient data	**Shows how**
10.2.2.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**

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
10.2.3.a	Ensure quality of ingredients to produce medicines and products	**Knows how**
10.2.3.b	Apply pharmaceutical principles to the formulation, preparation and packaging of products	**Shows how**
10.2.3.c	Verify safety and accuracy utilising pharmaceutical calculations	**Does**
10.2.3.d	Develop quality management systems including maintaining appropriate records	**Shows how**
10.2.3.e	Manage and maintain quality management systems including maintaining appropriate records	**Shows how**
10.2.3.f	Procure and store medicines and other pharmaceutical products working within a quality assurance framework	**Knows how**
10.2.3.g	Distribute medicines safely, legally and effectively	**Knows how**
10.2.3.h	Dispose of medicines safely, legally and effectively	**Knows how**
10.2.3.i	Manage resources in order to ensure work flow and minimise risk in the workplace	**Knows how**
10.2.3.j	Take personal responsibility for health and safety	**Does**
10.2.3.k	Work effectively within teams to ensure safe and effective systems are being followed	**Knows how**
10.2.3.l	Ensure the application of appropriate infection control measures	**Shows how**
10.2.3.m	Supervise others involved in service delivery	**Knows how**
10.2.3.n	Identify, report and prevent errors and unsafe practice	**Shows how**
10.2.3.o	Procure, store and dispense and supply veterinary medicines safely and legally	**Knows how**

10.2.4 Working with patients and the public

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

10.2.5 Maintaining and improving professional performance

Learning outcome	MPharm

10.2.5.a	Demonstrate the characteristics of a prospective professional pharmacist as set out in relevant codes of conduct and behaviour	**Does**
10.2.5.b	Reflect on personal and professional approaches to practice	**Does**
10.2.5.c	Create and implement a personal development plan	**Does**
10.2.5.d	Review and reflect on evidence to monitor performance and revise professional development plan	**Does**
10.2.5.e	Participate in audit and in implementing recommendations	**Knows how**
10.2.5.f	Contribute to identifying learning and development needs of team members	**Knows how**
10.2.5.g	Contribute to the development and support of individuals and teams	**Knows how**
10.2.5.h	Anticipate and lead change	**Knows how**

Appendix 3 – Indicative syllabus

It is expected that education providers will use the indicative syllabus to develop a detailed programme of study which will enable pharmacists to meet the learning outcomes.

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)