



Master of Pharmacy
degree (MPharm)

University College London
Report of a reaccreditation event
June 2019

Event summary and conclusions

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| Provider | University College London |
| Course | Masters of Pharmacy degree (MPharm) |
| Event type | Reaccreditation |
| Event date | 4-5 June 2019 |
| Accreditation period | 2018/19 - 2024/25 |
| Outcome | Approval The accreditation team agreed to recommend to the Registrar of the General Pharmaceutical Council (GPhC) that the MPharm degree provided by University College London should be reaccredited for a further period of six years, with an interim event to take place in three years; there were no conditions or recommendations. |
| Conditions | There were no conditions |
| Standing conditions | Please refer to Appendix 1 |
| Recommendations | There were no recommendations |
| Registrar decision | Following the event, the Registrar of the GPhC accepted the accreditation team's recommendation and approved the reaccreditation of the programme for a further period of six years with an interim event to take place in three years. |
| Key contact (provider) | Dr Rebecca Lever; Professor Cate Whittlesea |
| Accreditation team | Professor Andy Husband (Team Leader) Professor of Clinical Pharmacy and Head of School Newcastle University Professor Barrie Kellam, (Academic) Professor of Medicinal Chemistry, University of Nottingham Mrs Sandra Hall, (Academic) Retired, formerly Head of Pharmacy Practice, Leicester School of Pharmacy, De Montfort University Professor Paul Gard (Academic) Deputy Head of School, University of Brighton Mrs Gail Curphey, (Pharmacist) Pharmacy Consultant Ms Alia Ibrahim, (Pharmacist – recently registered) Community Locum Pharmacist Ms Susan Bradford, (Lay member) Non-Executive Director, South Western Ambulance Service NHS Foundation Trust, Solicitor (non-practising) |
| GPhC representative | Mr Damian Day, Head of Education, General Pharmaceutical Council |
| 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 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'.

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/ukxi/2010/231/contents/made>

Background

The University College London (UCL) MPharm programme is delivered by the School of Pharmacy, which is a specialist institution within the Faculty of Life Sciences in the School of Life and Medical Sciences. The MPharm programme was last reaccredited in 2013, for six years, with an interim visit after three years, without conditions or recommendations. This interim visit took place on 7-8 March 2016; while continuing accreditation was recommended with no conditions or recommendations, the team noted the School's changed plans for inter-professional learning for 2016-2017 onwards and strongly suggested that the GPhC should be updated annually on the roll-out of its new IPE plan, in preparation for the next full MPharm reaccreditation visit. A reaccreditation event was arranged for June 2019 and the following is a record of that event.

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 took place at the School of Pharmacy, University College London on 14 May 2019. 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 4 June 2019. The remainder of the event took place onsite at the School of Pharmacy UCL on 4-5 June 2019, and comprised a series of meetings with staff and students of the University.

Declarations of interest

Professor Barrie Kellam was a postdoctoral researcher at the School of Pharmacy between 1996 and 1997 and is currently external examiner for the UCL School of Pharmacy MSc in Drug Discovery. The team agreed that these did not constitute any conflict of interest, as neither activity was associated with the undergraduate MPharm programme.

Key findings

Standard 1: Patient and public safety

All criteria relating to this standard are met. (See Appendix 2 for criteria)

The School has systems in place to ensure that students do not jeopardise patient safety; these start at the point of recruitment, where students are expected to demonstrate that they will be able to meet UCL's institutional values, which include the provision of safe and effective patient care. An Enhanced Disclosure and Barring Service (DBS) clearance is required as a condition of enrolment on the MPharm programme, with those students who are resident outside the UK being required to provide a Certificate of Good Conduct from their home countries. Students must also complete a Fitness to Practise self-declaration form, which is renewed annually throughout their time on the course. They are not allowed to attend clinical placements without occupational health clearance and, from 2019-20, compliance with DBS and occupational health processes will be a formal requirement for progression from year 1 to year 2 of the MPharm. Students are introduced to professionalism and the GPhC 'Standards for Pharmacy Professionals', along with the concept of fitness to practise and the associated procedures, at the beginning of the programme; the understanding that patient safety is paramount is impressed upon students and reinforced throughout. Students are instructed in the safe completion of clinical tasks in simulated environments within the School and in the Green Light Pharmacy Education Centre; they are not permitted to have direct contact with the public or patients until they have demonstrated their competence in performing relevant tasks, and are supervised by a registered pharmacist at all times during clinical placements. In assessments relating to patient safety, for example, during dispensing or patient counselling activities, the criteria ensure that students will automatically fail if they make errors which, in real life, would cause harm to a patient. Students are monitored during their placements, and the placement hosts are requested to contact the School if there is any cause for concern in the performance or behaviour of a student.

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

All criteria relating to this standard are met.

The Director of the UCL School of Pharmacy is responsible for all academic activities within the School, and reports to the Dean of the Faculty of Life Sciences, who in turn reports to the Vice Provost for Health; the Vice-Provost reports directly to the Provost. The quality of teaching, learning and assessment is monitored, reviewed and evaluated systematically, with appropriate actions being taken where issues are identified. In addition to external quality indicators, the quality of teaching, learning and assessment is monitored through a number of University-level mechanisms, these being the six-yearly Internal Quality Review, the Annual Student Experience Review (ASER) and the Annual Academic Review, the last dealing with approval of new programmes and modules, as well as with approval of any changes to existing programmes and modules. The ASER process comprises an annual 'health-check',

drawing together monitoring activities, these being data reviews, external examiner reports, student surveys, and NSS action planning; data reviews cover the profile of the student body, admissions, progression, average attainment and final degree classification. All of these feed into an evaluative report, accompanied by a Development and Enhancement plan. The ASER is approved at Department (Divisional) and Faculty level before being considered by the Quality Review Sub-Committee of the UCL Education Committee. There are also internal School monitoring procedures dealt with by the School's Undergraduate Programmes Committee (UPC) which has oversight of the quality of teaching, learning and assessment within the MPharm programme. This committee reports to the School's Divisional Teaching Committee (DTC), which has overall responsibility for all academic programmes in the School. The Divisional Staff Student Consultative Committee (DSSCC) also reports directly to DTC and matters raised at its meetings, relevant to the MPharm, are additionally considered by UPC, along with feedback from the MPharm year leads. Feedback from students is collected in a number of ways, including through the DSSCC, where students provide feedback to their representatives; actions agreed at the DSSCC are monitored using a traffic-light style 'Action Tracker' that is available for students to view, along with minutes of the respective meetings. Students also complete end-of-module and end-of-year surveys, individual staff teaching-delivery surveys, as well as providing feedback through anonymous portals and weekly MPharm drop-in surgeries.

Students undertake experiential learning placements in both community pharmacy and in hospital. Most community placements are undertaken in the Green Light Pharmacy Education Centre, with which the School has a well-developed and highly successful collaboration underpinned by legal agreements. The hospital placement programme is hosted exclusively by NHS hospital sites that are accredited as Postgraduate Diploma in General Pharmacy Practice (PGDipGPP) Training Centres, which undergo a robust accreditation process, typically with a 3 to 4-year re-accreditation cycle. The sole use of these centres for placements provides continuity of quality assurance, in the knowledge that these sites have access to training skills and material, as well as sufficient resources. Service Level Agreements are in place to ensure long-term commitment to the provision of placements and suitably qualified tutors and supervisors. Formal feedback from both students and placement hosts is collected each academic year to facilitate continuous monitoring and improvement of provision.

Standard 3: Equality, diversity and fairness

Both criteria relating to this standard are met.

UCL has an Equality, Diversity and Inclusion Strategy that aims to address protected characteristics in all aspects of its activities; the objectives include improving the consistency of experience and support of staff and students around pregnancy, maternity, paternity, childcare and caring responsibilities, championing a culture where disabled people can thrive, collecting and analysing student monitoring data on sexual orientation, gender identity and caring responsibilities, and increasing student applications and enrolments from under-represented groups across UCL, especially from mature students, students from underrepresented BME backgrounds, and students with disabilities. A range of support mechanisms is in place for staff and students with respect to the promotion of equality and diversity; these include the provision of relevant training for staff, mentoring initiatives, and a range of useful information and resources for students, staff and managers. The School, which currently holds Athena SWAN Bronze status and is working towards Silver, has a Departmental Equal Opportunities Liaison Officer and an active Equality, Diversity and Inclusion Committee. Equalities monitoring data for UCL staff and students are gathered and reviewed centrally, with information on how the School is performing in terms of meeting its widening participation targets and attainment rates, such as those of BME students, being provided annually as part of the Annual Student Experience Review (ASER) data set. Students with disabilities are assessed by UCL Disability Services, who make recommendations as to whether any adjustments are required, such as extra time in written assessments, or deadline extensions for written coursework. All written examinations and summative items of coursework are marked anonymously as far as this is practicable. Equality and diversity training, including Unconscious Bias

Awareness training, is compulsory for all School staff members, who are expected to renew their training at least once every three years. Materials used in teaching are designed to be inclusive, for example by reflecting diversity in images used in lecture materials and the simulated patients used as examples during clinical teaching and assessment. Students are introduced to concepts of equality and diversity from the beginning of Year 1, with continuous reinforcement throughout the programme.

Standard 4: Selection of students

All criteria relating to this standard are met.

The UCL prospectus and website, as well as the School website, provide details of suitable qualifications for the programme, along with information about the School and the MPharm programme, as well as the selection process. It is also clear that prospective applicants will need to demonstrate that they espouse the necessary professional values. Applicants who are offered an interview at UCL are additionally sent detailed information on what to expect during the selection day, along with information on fitness to practise. A fitness to practise self-declaration form is collected upon registration for the selection day, and a member of staff is available for confidential discussion of any issues raised. Applicants are also asked to take an online values-based test, in advance of the selection day; this test comprises a numeracy component, situational judgement tests that include ethical dilemmas, and short essay-based questions, with scores in the test determining whether or not an offer will be made. The selection day itself comprises a presentation from a senior member of academic staff, a tour of the department, an interview, and an interactive exercise with other applicants and staff or postgraduate students, with staff members being available to answer any questions. The interview, based on standardised questions, is administered as a timed, two-station process involving academic staff members, current students and clinically practising pharmacists. Everybody is interviewed, including international students living in the UK, although international students living abroad undergo a different process which includes a more rigorous online assessment. All members of staff who are involved in interview panels must first undertake training in equality and diversity and in fair recruitment practices, and are also directed to training resources relating to 'unconscious bias' awareness. Contextual offers will be introduced for the 2019/20 entry, with students being made an offer of BBB at A-level, rather than AAB; these offers are based on postcodes and on the school attended. To obtain a contextual offer, such applicants must also pass an assessment, with candidates being expected to demonstrate reasoning and independence of thought.

Standard 5: Curriculum delivery and student experience

All criteria relating to this standard are met.

The MPharm curriculum, developed in 2013, demonstrates progression throughout the programme and deals with chemistry, formulation science, pharmacology, pharmacy practice and their inter-relationships at an increasing level of complexity in each successive year. The scientific basis of pharmacy is taught in a manner that integrates fully with practice throughout all years of the programme; the foundation is established in year 1, and built upon through a series of interconnected modules showing both horizontal integration across the modules in each year and vertical integration through themes, such as the integrated therapeutics theme and a pharmacy practice education theme. Integration in the programme is also supported by a series of integrated therapeutics workshops in the first three years, and a wiki-based project in the final year. The purpose of the integrated therapeutics workshops, which are typically based around clinical case scenarios, is to enable students to apply their knowledge and develop their understanding in a multi-/inter-disciplinary manner. The focus is on understanding the underpinning chemical, pharmaceutical, biological and pharmacological concepts and appreciating how that science is applied in the practice of clinical pharmacy. The final year, which also includes a large research project, builds on all previous elements of the programme and addresses, at an advanced level, the themes of law and ethics, calculations, communication skills, public health, medicines safety,

therapeutics based on complex cases, and decision making. Working in small groups, students also complete an assignment on the development of a new pharmaceutical service; here, in addition to producing a written proposal, the students produce a multi-media presentation and pitch their proposed service to a 'Dragons' Den' of leading external experts. Across all four years, students complete a 'Professional Portfolio'; this portfolio is based on the GPhC's 'Standards for Pharmacy Professionals', with professionalism being emphasised throughout the programme; the portfolio covers a wide range of material, including pharmaceutical calculations, continuing professional development records, personal development planning, reflective accounts covering, for example, inter-professional educational activities, clinical skills. The MPharm programme includes opportunities for experiential learning through placements, as well as inter-professional education with medical and nursing students, and students are exposed to patients from the start. Experiential learning is undertaken in community pharmacy and hospitals in each year of the programme; this also includes a GP practice placement, a session in a sexual health clinic and a one-day emergency-care placement. Most of the community pharmacy work is undertaken in the Green Light Pharmacy Education Centre. As well as meeting patients during their placements, patient engagement sessions are held in classes, these allowing students to interact with real patients and expert patients, for example, patients with Parkinson's disease or epilepsy, as well as with simulated patients played by actors. Assessments show progressively increasing complexity and integration across the four years, and with students becoming increasingly self-directed; as well as summative assessments, there are both diagnostic and formative assessments. There are written examinations, as well as objective, structured clinical examinations (OSCEs) in each year, with significant contributions from coursework, this being the only form of assessment for some components such as the final year research project. Students receive appropriately timely feedback on formative and summative assessments. All modules, as well as all specified assessments within modules, must be passed separately, and, where students make a mistake that in real life would lead to patient harm, they will fail that assessment.

Standard 6: Support and development for students

The single criterion relating to this standard is met.

Students are each assigned a personal academic tutor at the beginning of the course and normally retain the same tutor throughout their time in the School; they are expected to meet their tutors regularly during each year of the programme, for example, to discuss their professional development portfolios, although the nature and frequency of the meetings changes as the student progresses, but with a more consistent experience presented for first year students. Resources are available to support tutor group activities; these include record sheets for tutor meetings, and suggestions for exercises to support students' development with respect to general numeracy and pharmaceutical calculations, as well as resources to support students' reflections on their performance in tests. Academic tutors are supported in their role by the Senior Academic Tutor, the MPharm Programme Director and the School's Student and Academic Services Office (SASO), to whom queries can be directed and, where necessary, students referred. The academic tutors also review their tutees' personal development plans throughout the programme, and assist students in the development of goals for each academic year. Advice on curriculum vitae preparation and applications for summer placements is also available within the academic tutor scheme, in addition to the extensive support for these aspects provided from UCL Careers and the School's Pre-Registration Co-ordinator. In addition to support provided via the academic tutor scheme and the Student and Academic Support Office, the MPharm Programme Director hosts a weekly drop-in surgery where students can discuss any problems, as well as provide feedback. The School holds 'Wellbeing Wednesdays', which provide a whole range of activities most of which are not academic-related, and also offers student access to Wellbeing Champions who receive specific training for this role, including training in mental health first-aid. Specific support is also available for examination revision. Should students have need for additional support or advice in relation to specific aspects of the course, they are advised in the first instance to approach the member of staff who delivered the material, or the relevant module leader.

Standard 7: Support and development for academic staff

All criteria relating to this standard are met.

The University has a formal Appraisal, Review and Development Scheme, and all staff members are expected to undergo annual appraisal. The appraisal process is designed to provide guidance and support for the appraisee, including in relation to career aspirations, to identify any specific training needs, to improve communication within departments, and to enable UCL to best meet its objectives of a high quality teaching and research environment with staff working to their full potential. New members of academic staff members are provided with a structured induction process and a period of probation appropriate to their prior experience. Additionally, the School has a Teaching Induction Policy for Academic Staff; this aims to ensure that new members of staff meet early with existing staff members who will support their anticipated teaching roles. New staff members also have an early opportunity to visit Green Light Pharmacy and one of the School's partner NHS Hospital Trusts, so that their teaching can be framed within the clinical context of the programme; hospital pharmacy and Green Light orientation sessions are also offered periodically to all members of staff who are not routinely involved in the delivery of these aspects of the course. Signposting to relevant training, including towards a teaching qualification where required, is also provided as part of this process, along with an introduction to peer review of teaching and the appointment of a suitably experienced teaching mentor, where the new appointees have limited previous teaching experience. All staff are required to participate in peer review of teaching at least once every two years, and records of participation are kept within the School. Ongoing support and development opportunities for the teaching practices of existing academic, technical and professional services staff are available through UCL Arena, UCL's professional development pathway for teaching; this includes support in obtaining fellowship of the Higher Education Academy. Training sessions are organised for members of staff, for example, relating to the introduction of new teaching technology, and to ensure that all staff members have opportunities to learn how to make the best use of standard educational tools such as online quizzes or audience response systems. The School carries out an annual workload assessment exercise that takes account of teaching delivered across all taught programmes, including undergraduate and postgraduate project supervision and examination marking, PhD supervision and course management responsibilities; all staff members are expected to contribute towards recruitment and selection activities, such as interviewing prospective MPharm students. There is a document providing guidance on workload expectations for staff members on contracts that require both teaching and research activities, and workload is discussed at appraisal and reviewed by the Divisional Executive Team, with adjustments made as necessary in consultation with the Head of the relevant Research Department. Members of academic staff who have been in post for at least three years, or who are returning from a period of parental or extended carer's leave, may take a period of paid leave of up to one term to undertake research or other appropriate study related to an individual's academic or professional field.

Standard 8: Management of initial education and training

Both criteria relating to this standard are met.

The Director of the School of Pharmacy is responsible for all its academic activities. The Director reports to the Dean of the Faculty of Life Sciences; the Dean reports to the Vice-Provost for Health, who, in turn, reports directly to the Provost. Within the School, responsibility and day-to-day accountability is devolved to a number of senior committees, these being a Divisional Executive Team, a Divisional Teaching Committee, and a Research Committee; a number of other committees, such as the Undergraduate Programmes Committee and the Postgraduate and Professional Programmes Committee, report to these main committees. Line management of academic staff falls within the four Research Departments (Practice and Policy, Pharmaceutical and Biological Chemistry, Pharmaceutics, Pharmacology), the heads of these departments reporting to the Director. Responsibility for the MPharm

programme is devolved to the Undergraduate Programme Committee (UPC), chaired by the MPharm Programme Director and reporting to School's Divisional Teaching Committee; the UPC covers all aspects of educational provision and development, including the MPharm course structure and the assessment and placements strategies. Within the MPharm, each module is managed by a Module Lead and a Deputy Module Lead, and each level of the programme is co-ordinated by a Year Lead, who has oversight of the content of each year and ensures full horizontal integration. The Clinical Teaching Lead acts additionally as a 'vertical year lead' and works with the other year leads to further ensure both vertical and horizontal integration within the programme. Individual Heads of Research Department also act to ensure vertical integration within their disciplines and completeness of delivery of the curriculum, whilst maintaining a fair distribution of workload. The MPharm Programme Director takes ultimate responsibility for the programme. UCL has a general minimum student attendance rule of 70%; should students attend less than 70% of timetabled teaching events, they may be barred from attending summative assessments and, by implication, will not progress to the next stage of study. Within the School, attendance at timetabled sessions, including placements, is compulsory and is monitored in all practical, dispensary, workshop and seminar sessions. Electronic registers are maintained and are regularly monitored by the Student and Academic Support Office, with appropriate action being taken if attendance is inadequate.

Standard 9: Resources and capacity

All criteria relating to this standard are met.

Ahead of each financial year, every UCL Faculty must update its strategic operating plan and budget for consideration by the Senior Management Team. A consolidated plan and budget is then taken forward to UCL's Finance Committee, which makes a recommendation to Council. As a Division, the School of Pharmacy's plan and budget feeds in to the Faculty of Life Science's plan at early stage in the planning process, with considerable involvement from the Finance team of the School of Life and Medical Sciences (SLMS) and from the Dean and Director of Operations of the Faculty. In addition to the SLMS Finance Director, the Faculty accountant provides regular support to the School of Pharmacy's management and finance team. There is close involvement of senior staff at the School of Pharmacy in all the assumptions underlying the planning and budget setting, including student number planning and strategic investments. From its annual income, the School makes a contribution towards Faculty and UCL central costs. Student recruitment has remained healthy, with a target number of 200 students per year. The School currently has 59 members of academic staff, arranged into the four research departments; of the 59 members of academic staff, 20 are GPhC-registered pharmacists and a further nine staff members possess a pharmacy qualification but are not currently registered with the GPhC. In addition, delivery of the programme is supported by a Boots Teacher Practitioner, a Day-Lewis Teacher Practitioner, with the appointment of a Green Light Teacher Practitioner due, and nine practitioners seconded from NHS hospitals; all teacher practitioners are GPhC-registered pharmacists. Additional teacher practitioners also contribute on an ad hoc basis to workshops and OSCEs throughout the year. Two Teaching Fellows are to be employed to teach clinical skills; although their focus will be on postgraduate teaching, they will also feed into the MPharm programme. The School will employ a technician to support the new Clinical Skills facility (see below). The School intends to employ a new lecturer in pharmacoepidemiology and drug safety, who will not only be very important for research but who will also undertake some undergraduate teaching.

All timetabled MPharm teaching, with the exception of experiential learning placements and some of the inter-professional education sessions, is currently held in the School of Pharmacy building. The School has one main lecture space, which can accommodate a full cohort of 200 students. All seats have audience response system buttons installed, with a mobile kit available for use in other teaching spaces. There is also space for MPharm workshops and seminars, and for small-group computer-assisted learning, as well as for OSCEs and poster presentations. All teaching spaces are equipped with full audio visual and lecture recording facilities. There is UCL-wide access to the wifi network, with extensive provision of wired network access points. A Professional Skills suite comprises an adaptable workshop

space adjoining a fully equipped state of the art dispensing laboratory; a new flexible clinical skills facility is to be developed. State of the art teaching laboratories provide specialised facilities and equipment for teaching organic chemistry, pharmacology, biochemistry, microbiology and pharmaceutical instrumentation. Students have access to all 18 of the UCL libraries, including the School of Pharmacy Library, the Cruciform Medical Hub/Library and the Science Library; the School of Pharmacy Library contains quiet study spaces, a group study room, a suite of computers, as well as access to printers and scanners and borrowable anatomy models. A new Student Centre provides access to a further 1000 individual study spaces, as well as areas for group work, social areas and a student enquiry service.

Standard 10: Outcomes

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

The team scrutinised the learning outcomes by discussions with the teaching staff and consulting the documentation. Six outcomes selected by the team for discussion in depth were 10.1.a, 10.1.f, 10.2.1.b, 10.2.2.a, 10.2.2.b, and 10.2.3.k (see Appendix 2). Having discussed the selected outcomes with the staff, as well as scrutinising the documentation relating to these and to the other outcomes, the team was satisfied that all 58 outcomes are met at the appropriate levels.

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 reaccreditation 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 providers offering 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 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 *standards for pharmacy professionals (2017)*;
 - 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;
 - 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.

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

4. Selection processes must be open, fair and comply with relevant legislation. Processes must ensure students 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 must deliver the outcomes in Standard 10. Most importantly, curricula must ensure students 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.
- 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.

Standard 6: Support and development for students

6. Students 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 to develop as learners and professionals.

Standard 7: Support and development for academic staff

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.

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. 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. 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

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)*