Swansea University
Report of a step 2 accreditation event
September 2019
## Event summary and conclusions

<table>
<thead>
<tr>
<th>Provider</th>
<th>Swansea University</th>
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<tbody>
<tr>
<td>Course</td>
<td>Masters of Pharmacy degree (MPharm)</td>
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<tr>
<td>Event type</td>
<td>Accreditation</td>
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<tr>
<td>Step</td>
<td>2</td>
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<tr>
<td>Event date</td>
<td>17-18 September 2019</td>
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<tr>
<td>Accreditation period</td>
<td>Working towards accreditation: next visit due 2020</td>
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### Outcome

**Approval:**

The accreditation team agreed to recommend to the Registrar of the General Pharmaceutical Council (GPhC) that Swansea University should be permitted to move from step 2 to step 3 of the accreditation process for new MPharm degrees; there were no conditions and no recommendations were made. The University should note that all new MPharm degrees are accredited ‘provisionally’ until the first cohort has been taught.

Having made its decision, the accreditation team wishes to remind the University that currently there is some way to go before everything is in place for the full and successful delivery of a new MPharm degree. The Step 3 accreditation team will pay close attention to progress made when it visits. In this context, the team suggests that particular attention is given to:

1. the MPharm admissions policy and strategy; the University must ensure that there is equity in admissions across applicant groups (this relates to standard 4);
2. the assessment strategy, which the team feels needs further development for clarity and focus (this relates to criterion 5.7);
3. the experiential learning strategy, which is ‘initial’ and, in the team’s view, needs further development (this relates to criterion 5.6);
4. the inter-professional education strategy, which is also ‘initial’ and, in the team’s view, needs further development (this relates to criterion 5.6); and
5. how the Summer module between years 2 and 3 will be (i) quality assured and (ii) managed within the University’s regulations, especially those relating to progression between years; this relates to standard 2 and to criterion 5.9).

For clarity, the accreditation team would like to receive an explanation of lines of responsibility for the pay and non-pay pharmacy budget and how pharmacy feeds its requirements into University processes. The team understands that structures and processes in this area are under review. The deadline for this being sent to the GPhC is 10 January 2020.

Linked to the standing condition of accreditation that course providers must inform the GPhC of significant changes in provision, the University must send
Although students cannot be admitted until Step 3 has been passed, the University may now advertise its provisionally-accredited degree. The wording used in all publicity material and offers letters must be agreed with the GPhC.

<table>
<thead>
<tr>
<th>Conditions</th>
<th>There were no conditions.</th>
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<tbody>
<tr>
<td>Standing conditions</td>
<td>Please refer to Appendix 1</td>
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<tr>
<td>Recommendations</td>
<td>No recommendations were made.</td>
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<tr>
<td>Registrar decision</td>
<td>Following the event, the Registrar of the GPhC accepted the accreditation team’s recommendation and can be permitted to move from step 2 to step 3 of the accreditation process for new MPharm degrees.</td>
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**Key contact (provider)**
Professor Andrew Morris, Head of Pharmacy

**Accreditation team**
- Peter Curphey (Team Leader), Pharmacy Consultant
- Professor Andrew Husband (Team member - Academic), Professor of Clinical Pharmacy and Head of School, Newcastle University
- Professor Anthony Smith (Team member - Academic), Vice - Provost Education and Student Affairs, University College London
- Dr Katie Maddock (Team member - Academic), Head of School of Pharmacy and Bioengineering, Keele University
- Raminder Sihota (Team member - Pharmacist), Senior Manager Professional Standards, Boots UK
- Sekemi Akinode, (Team member - Pharmacist, recently registered) Relief Pharmacist, Boots
- Professor Dorothy Whittington, (Team member - Lay member), Emeritus Professor of Health Psychology, University of Ulster and Non-Executive Director, Business Services Organisation for Health and Social Care (Northern Ireland)

**GPhC representative**
Damian Day, Head of Education, 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 methods.
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

Background

Early in 2018, the General Pharmaceutical Council (GPhC) was approached by Swansea University Medical School with a view to the University entering the process for accrediting a new MPharm degree, the intention being to admit the first cohort of students in the 2020/2021 academic year. Consequently, a meeting was convened on 25 May 2018, constituting a Step 1 event. The GPhC representatives were told that the introduction of MPharm degree sits wholly within the strategy of the Swansea University Medical School. The new degree will be developed and offered by the Medical School, in close partnership with the College of Human and Health Science. Swansea University will provide state of the art laboratories, mock consultation rooms and simulation suites; students will also benefit from easy access to the hospital environment through the Medical School’s close proximity to ABMU Singleton Hospital. Pump prime funding will be provided by the University to allow the admission of the first cohort of students.

The GPhC advised the University representatives of a number of points. These included the risks associated with starting a new MPharm programme. There was a high risk in attempting to launch a new MPharm degree, especially relatively close to another school offering a well-established accredited MPharm degree. Moreover, many new schools of pharmacy have opened recently, resulting in increased difficulty of attract high-quality staff, especially in the areas of pharmacy practice and pharmaceutics, as well as in attracting sufficient numbers of high-quality students. University representatives were cautioned by the team against relying too heavily on service teaching from existing areas because it was the experience of the GPhC, and of new schools of pharmacy, that this strategy was flawed, as service teaching tended to be insufficiently pharmacy-orientated to be properly effective. The team confirmed that the University’s aspiration for a first intake in the 2020-2021 academic year was feasible, but only if a step 2 event in 2018-2019 and a step 3 event in 2019-2020 were both successful; moreover, this was a best-case scenario and it was common for applicant institutions to repeat a step, with every repeated step adding one year to the process. The GPhC team informed the University representatives that key staff members would be need to be in post six months before a step 2 event, so that they could influence the development of the step 2 proposal. The University representatives were also informed that practice-based staff should be in post well in advance of a step 3 event so that they could properly inform the development of the full curriculum.

Noting the University’s intention to establish concurrently both a 4-year and a 5-year MPharm degree, the GPhC advised that the focus should be on developing the 4-year MPharm, with the development of the 5-year programme being deferred until the School was established; such an approach would give the University time to establish relationships with potential pre-registration providers, as well as to gain a better understanding of the direction of travel for healthcare and pharmacy services in Wales.

A step 2 event was arranged for September 2019 and the following is a report 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 Swansea University on 1 August 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 17 September 2019. The remainder of the event took place onsite at Swansea University on 18 September 2019, and comprised a series of meetings with staff of the University and stakeholders, and included a tour of the University facilities.

Declarations of interest

Dr Katie Maddock is involved in a ‘virtual patient’ project between Keele University and the Swansea University Medical School academics who deliver the MSc Diabetes Practice. The team agreed that this did not constitute a conflict of interest.

Key findings

Standard 1: Patient and public safety

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

The School will have effective systems in place to ensure that students will not jeopardise patient safety. During enrolment students will be expected to undertake relevant health checks and submit to a Disclosure and Barring Service (DBS) criminal records check to confirm good character. At the start of each academic year, students will be required to make an online submission confirming no changes to their health or good character records; they will be required to report any change during the year to the University in a timely manner. There will be a compulsory induction week; this will include familiarisation of students with relevant fitness to practise procedures, the GPhC Standards for Pharmacy Professionals, Swansea University student regulations and the behaviours expected of them, including good timekeeping and attendance. Students will sign a learning agreement and this will include the requirement to meet the GPhC’s Standards for Pharmacy Professionals. Patient-centred professionalism will be heavily embedded and students will be assessed on patient safety elements; professionalism elements in all modules will assess students’ self-awareness of their abilities and competence, ability to practise safely, ability to adhere to health and safety protocols and standard operating procedures. All student interaction with patients, including simulated patients, will always be supervised by academic staff and/or placement supervisors; students will never be given responsibility for any clinical, professional or legal decision that might jeopardise patient safety. As students’ competence develops through the course, the level of support and supervision will decrease to promote student autonomy within a framework of safe practice and standard operating procedures. There is an expectation that all stakeholders (students, academic staff, placement providers, patients and the public) will raise concerns if there are issues around safe practice. Students will be made aware of the impact of accidents and near-misses on patient safety and of the University’s procedures for accident and near miss reporting and the public interest disclosure (‘whistle-blowing’) policy and procedures. The MPharm programme will include...
zero-credit ‘Pharmacist as a Professional’ modules, which will be built into each year of the course. These modules, which will be assessed via a variety of methods including a continuing professional development (CPD) portfolio, placement engagement and self-reflection, will provide a means through which students who might pose a risk to patients and the public can be identified and the issues addressed. Ultimately, failing one of these modules would prevent unsafe students from progressing to the next stage of the degree. Fitness to practise procedures will ensure that any unsafe practice is managed in an appropriate way. The Medical School already has fitness to practise procedures in place for its medical students and these are being amended to accommodate the MPharm degree. Expulsion of a student from the programme will be appropriate where the fitness to practise panel considers the student’s behaviour or health concern to be incompatible with their continuing on the programme and/or of practising in the relevant profession.

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

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

Swansea University Medical School (SUMS) is one of eight Academic Colleges in the University and, as such, has a considerable degree of autonomy. The Head of the Medical School reports directly into the University’s Senior Management Team (SMT) via the Pro-Vice-Chancellor (Planning and Resources). SMT is chaired by the Vice-Chancellor and consists of the Registrar, the four Pro-Vice-Chancellors and the Director of Finance. The Pro-Vice-Chancellor (Education) has responsibility for academic performance, student experience, student recruitment, and widening access across the University. The quality of the Medical School’s learning and teaching provision and the student learning experience is overseen by the SUMS Learning and Teaching Committee, which reports to the University Learning, Teaching and Quality Committee and is chaired by the Director of Learning and Teaching; the Head of Pharmacy is a member of this Committee, which also includes student members, one of whom will be an MPharm student. The Committee oversees the implementation and monitoring of University strategy and policy for learning, teaching and assessment for taught programmes, as well as overseeing the activities of the Boards of Studies within the Medical School. The Board of Studies for Pharmacy, which will report to the SUMS Learning and Teaching Committee, will be chaired by the Head of Pharmacy and will meet three times a year; its responsibilities will include annual reviews of the MPharm programme and all MPharm modules and also reviewing and acting on National Student Survey (NSS) data. Once the programme has been established, three external examiners will be appointed to cover the breadth of the MPharm curriculum; the Pharmacy Board of Studies will receive and respond to reports from the external examiners. MPharm students will be invited to comment on their academic experiences at Swansea University for example, using module feedback questionnaires for each module, the Student Staff Committee, and through student representation at the SUMS Learning and Teaching Committee. The Head of Pharmacy and the MPharm Programme Director will meet with each MPharm year group mid-semester to collect feedback directly. MPharm students will undertake placements in hospitals, community pharmacies, GP practices, care homes and other settings. Service-level agreements will be established with all placement providers; these agreements will outline duties and obligations of University staff, placement providers and students with reference to clearly identified evidence-based competencies. A two-way feedback model will be used with formal feedback being collected from placement supervisors at the end of the placement and general messages being disseminated to students. Placement supervisors will also be encouraged to give informal feedback to students as an ongoing process to aid their learning. Students will be encouraged to give feedback to the University and/or placement supervisor regarding their experiences, highlighting what went well and areas for potential improvement. An extensive range of stakeholder meetings is being held as part of the MPharm development process and this will continue after the first students are recruited. The views of stakeholders have been sought in areas such as curriculum content, and inter-professional education.
**Standard 3: Equality, diversity and fairness**

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

Swansea University aims to provide a working and learning environment, which is free from discrimination and that enables staff and students to fulfil their personal potential. One role of the University’s Equality Committee, which reports directly to SMT, then to Council, is to monitor progress made against the objectives of the Strategic Equality Plan. Student equality and diversity data are captured annually during online enrolment, while such data for staff are captured as part of the recruitment process. Data related to protected characteristics for staff and students are published each year in the Equality Annual Report. This report is reviewed by the institutional Equality Committee and ultimately by SMT and Council. The Medical School was the first University department to achieve an Athena SWAN Charter Silver Award and the Athena SWAN self-assessment team oversees the Medical School’s equality and diversity action plan; as a part of this, the self-assessment team also review equality and diversity data at College-level on an annual basis. During the induction process, all new staff members must complete the Swansea University Diversity and Equal Opportunities training module. The Swansea Academy of Inclusivity and Learner Success (SAILS) is in place to increase opportunities for students from diverse backgrounds to benefit from higher education and to ensure that they are supported; it has produced a number of learning resources for staff and also delivers training events. Some of the key mechanisms through which the MPharm programme will promote and enable inclusivity include respecting diversity, developing MPharm content which is accessible and consistent, interactive teaching which promotes dialogue, and managing group work sensitively and fairly. The University is also committed to the use of the Welsh Language and promotes its use. For MPharm students, the University is working to create Welsh language placement opportunities and it is intended to use Welsh-speaking patients/simulated patients during some practice workshops. Welsh-speaking students may also have the option of submitting their assessments, as well as receiving feedback, through the medium of Welsh, and of requesting a Welsh speaking Academic Mentor. Assessments in Welsh will be identical to those undertaken in the English language.

**Standard 4: Selection of students**

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

Information about the MPharm will be provided to applicants via different sources, including the undergraduate prospectus, which is available as a hard copy and online, as well as through the more detailed undergraduate courses section of the website. Institutional-level Open Days, held four times per year, include course presentations, tours of facilities and an opportunity to take part in an interdisciplinary ‘science into practice’ laboratory class; they will also provide prospective students with the opportunity to discuss the MPharm course with pharmacy academic staff and the more general aspects of University life with undergraduate students from other courses within the Medical School. The main marketing material will outline the process for registration as a pharmacist, clearly stating GPhC policies and procedures regarding prospective registration advice, appeals relating to registration, health and good character checks, and what may result from issues arising during these checks. Students will also be signposted to external organisations such as the GPhC and the RPS during Open Day and Interview Day presentations. All marketing material will also contain the phrase: *The degree is provisionally accredited. Swansea University is currently working towards full accreditation by the General Pharmaceutical Council (GPhC)*. Details of the selection criteria for applicants will be made clear to MPharm applicants; it will also be made clear that an interview will be required in order to gain admission to the programme. The proposed academic criteria are ABB-BBB at A-level, which must include chemistry and at least one from biology, physics, mathematics and psychology; equivalent academic qualifications will be considered; a foundation year entry route is under consideration for applicants who have not met the standard entrance requirement. Candidates will be required to demonstrate appropriate achievement in English language and numeracy. As well as presenting appropriate academic qualifications, candidates will be required to undergo an enhanced criminal
disclosure via the DBS, as well as health checks, the latter being undertaken once applicants have received an offer. International applicants who cannot undergo a DBS check will need to produce a Certificate of Good Conduct (or equivalent) from their home countries. As part of the application and interview process, students will be asked to notify the University of any health or conduct issues which may potentially impact their fitness to practise status. The admissions processes will include interactive activities and all offers will be subject to the satisfactory completion of multiple mini interviews (MMIs) typically conducted in a face-to-face environment at the University, or, where necessary, using telephone or Skype communication; here, candidates will undertake between 4-6 stations, these covering ethical dilemmas, calculations, interest in person-centred care, ability to work with other people, professionalism, and problem-solving abilities. The accreditation team was keen to ensure equity between the processes used to interview home students and those based overseas.

**Standard 5: Curriculum delivery and student experience**

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

The MPharm programme is being designed to integrate science and practice, with the degree of integration increasing as the course progresses and the use of a spiral curriculum, with progressively increasing complexity, and following a logical sequence to reinforce knowledge and trigger higher level objective and critical thinking. The programme will be delivered in seven themes, these being ‘pharmaceutics’, ‘pharmaceutical chemistry’, ‘pharmacology’, ‘biology & biochemistry’, ‘anatomy & physiology’, ‘clinical pharmacy’ and ‘pharmacy practice’ which will run horizontally within the three broad year 1 modules, and also as themes in the ‘Patient-Centred Learning’ modules in years 2 and 3. The first year will comprise three 40-credit modules ‘Drugs & Medicines’, ‘Practice of Pharmacy’ and ‘Health, Disease & Patients’. In year 2 there will be two, 60-credit, semester-long modules (‘Patient-Centred Learning’ 1 and 2), while year 3 will comprise, a 60-credit, semester 1 module, ‘Patient-Centred Learning 3’, along with a 40- or 60-credit module entitled ‘New Knowledge’ in semester 2; this module will comprise an integrated research project in a broad range of different subject areas. Those who elect to do the 40-credit module will also pursue 20 credits from a catalogue of existing modules selected from across the Medical School and other Academic Colleges. The year 2 and 3 ‘Patient-Centred Learning’ modules are focused on diseases and body systems, and will initially be built around a number of ‘principal’ patients with a specific condition(s), these patients forming a community in which the students will be immersed throughout their degree; the patients may suffer initially from minor ailments, and then develop acute and/or chronic pathologies across the subsequent ‘Patient-Centred Learning’ modules. Year 4 will comprise two, 60-credit modules, these being ‘Patients and the Population’ and ‘Preparation for Advanced Practice and Management’; the focus in year 4 will be patients with multiple chronic conditions and the importance of public health and the integration of health and community care. Each year will also include a zero-credit ‘Pharmacist as a Professional’ module to ensure that all students continue to meet the GPhC’s ‘Standards for Pharmacy Professionals’. Exposure to patients, carers and the wider healthcare team will increase as the programme progresses. This will be implemented through interactions with carers, patients and healthcare professionals in the Pharmacy Skills Suite, Clinical Skills Suite, Medical Educational Units, on placements and during assessments such as OSCEs; patients encountered will be simulated, virtual or real, including expert patients. Placements will take place in a variety of sectors, including community pharmacy, hospitals, industry, care homes, and GP practices. In year 4, there will be an increase in experiential learning delivered on campus, with an emphasis on developing some of the skills required for a future prescribing role. Practical experience will also be gained through inter-professional education (IPE) activities alongside students, for example, of medicine, nursing and paramedic science. The complexity of the IPE will increase, with students progressing from multi- and inter-disciplinary working to trans-disciplinary working, where all disciplines disappear and all work towards optimum patient outcomes. The assessment strategy is being developed to ensure that MPharm students demonstrate that they have met the GPhC learning outcomes at the appropriate level, have their academic skills and competencies effectively evaluated with constructive feedback, develop their own self-assessment abilities, and demonstrate that they are competent in critical areas relating to professional practice and patient safety. There will be a variety of diagnostic,
formative and summative assessments and, as well as discipline-based assessments students, will also have integrated assessments which will be designed to assess students’ ability to assimilate and integrate information. Assessment of the zero-credit ‘Pharmacist as a Professional’ modules will include a CPD e-portfolio and a personal development plan. Professional competencies will also be evaluated using portfolios of evidence, pharmaceutical calculations and evaluations of professional practice during all placements and other professional and/or patient-facing activities. Some summative assessments will have ‘must pass’ elements to ensure that the safety of patients and the public will not be jeopardised; these will be dealt with via the zero-credit ‘Pharmacist as a Professional’ modules. These elements, which will be assessed, for example, in numeracy assessments and in some OSCE (objective, structured clinical examination) stations, will focus on competence, patient safety and ethics. In these assessments, failure to identify an issue that may have serious clinical or legal consequences and that could cause patient harm could lead to the student failing the assessment. Indeed, students will fail any summative assessment in which they consistently demonstrate unsafe practice that could put patients and/or the public in danger.

**Standard 6: Support and development for students**

The team was satisfied that the single criterion relating to this standard will be met.

Each student will be assigned an Academic Mentor (personal tutor) with whom they will meet throughout the year in a series of compulsory individual and group sessions; Academic Mentors for MPharm students will be allocated from staff members who teach on the MPharm programme, and typically students will retain the same Academic Mentor throughout their four years on the programme. These Academic Mentors are the primary point of academic contact for students and will provide support, development and guidance on a range of issues that may affect students’ wellbeing, attendance and educational progress. Academic Mentors will help students with their personal development planning and career advice, and may also signpost them to welfare and other support services as appropriate; central support services offered by the University include STAS (Specialist Tuition for Academic Success), which for example, supports students with specific learning difficulties, the Disability Office, SAILS (Swansea Academy of Inclusivity and Academic Success), and the careers service (Swansea Employability Academy). Students will be encouraged to contact their Academic Mentor at any time by email, telephone or in person during working hours if they have any questions or concerns. The mentor-mentee meetings are essential elements of the teaching and support strategies, and represent key opportunities for one-to-one and small group contact. Meetings will be timetabled with an agenda in place for each session covering key themes such as continuing professional development (CPD) and careers. A peer mentoring system will be introduced, whereby new Year 1 MPharm students are paired with a senior student with the aim of supporting the transition to higher education. This peer mentoring system will be built into the ‘Pharmacist as a Professional’ modules, because contributing to the development of others forms part of the Standards for Pharmacy Professionals. The induction week at the beginning of the first year will include sessions to facilitate students’ transition into higher education. These sessions will also introduce the concept of CPD and its relevance to pharmacy, with students being required to undertake CPD activities in every year of the programme through the zero-credit ‘Pharmacist as a Professional’ modules. Students will maintain an e-portfolio of CPD entries to document their development throughout each academic year, and will be encouraged to discuss entries with their peers and with their Academic Mentors. Information about pharmacy careers and enhancing employability will be built into the MPharm programme. This will include careers advice seminars delivered by employers and external pharmacy organisations, as well as support and advice for students seeking pharmacy vacation experience. In Year 3, in preparation for applications for pre-registration training places, there will be a week-long series of events delivered by employers and other experts covering employability skills and information relevant to future practice. The School will work closely with HEIW to support those students who wish to train in Wales, and there will be specific sessions for students wishing to undertake their pre-registration training elsewhere in the UK.
Standard 7: Support and development for academic staff

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

All new members of academic staff typically undergo a three-year probationary period, during which time they each have a probation supervisor and a mentor, with the probation supervisor usually being the line manager, who will be the Head of Pharmacy or another senior pharmacy academic; the Medical School identifies a mentor for each new member of staff at the time of appointment. Targets agreed during the probationary process will be signed-off by the Head of the Medical School and the Pro-Vice-Chancellor (Student Experience and Academic Quality Enhancement). Adjustments providing probationary staff with time to learn are a part of this process. The University’s mentoring arrangements work alongside the probationary process. Effective personal support is provided through the Performance Development Review (see below) and probationary processes. Line managers can signpost staff to the University’s support services, which include the Occupational Health Service, Staff Counselling Service and Medical Centre. The University provides a comprehensive induction programme for all new staff members. As part of their induction within the Medical School, new members of staff meet with their line managers or a nominated individual, and a structured discussion takes place based on an induction checklist covering aspects such as the physical layout of the department and the people within the department, along with organisational structure and relationships, rules, procedures and practices, health and safety, and the job description of the new staff member. The induction discussion also covers specific online training courses which all new starters are expected to complete. During their induction, all members of staff who are not pharmacists will be offered a pharmacist mentor whose role will be to act as a first port of call on matters related to the profession of pharmacy. Alongside the mentoring arrangements put in place on appointment, the University has a parallel mentoring system specifically for academic staff seeking promotion. Academic staff development is supported via the Swansea University Performance Development Review (PDR) online system; this provides an opportunity for every member of staff to reflect with their line manager on what has been achieved over the previous 12 months and to look forward and make plans for the coming year. Members of staff are expected to undertake two professional review meetings each year, with the second meeting providing an interim PDR that allows review of progress halfway through the year. Peer review of teaching will be conducted between pharmacy academics to enable constructive feedback on the effectiveness of interventions aiming at promoting student learning.

All members of the pharmacy academic staff will also have additional structured support via the fortnightly Pharmacy Development Committee meetings and the weekly MPharm curriculum development meetings. The Head of Pharmacy operates an open door policy to facilitate effective supervision. The University expects all members of academic staff involved in teaching to work towards recognition of their teaching contributions by attainment of HEA Fellowship through a course offered by Swansea Academy of Learning and Teaching (SALT). Pharmacist and non-pharmacist academics are expected to undertake CPD and protected time is built into their workload to support this. There are extensive opportunities for structured staff development, including in-house events organised by the Medical School and training centrally through the Swansea Academy of Learning and Teaching, and by SAILS; SALT offers a range of seminars, workshops on learning and teaching, and hosts an annual Excellence in Learning and Teaching Conference.

Standard 8: Management of initial education and training

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

Overall responsibility for the delivery of all programmes within the Medical School lies with the Head and Dean of the Medical School. For the MPharm programme, this management responsibility is delegated to the Head of Pharmacy. The Head of Pharmacy will chair the Pharmacy Board of Studies and is also a
member of the SUMS Learning and Teaching Committee. The Programme Director, Year Heads and Module Leaders, as well as other key individuals will also be members of the Pharmacy Board of Studies. The MPharm Programme Director is taking the lead in developing the structure of the MPharm degree and the associated curriculum; she will also ultimately work closely with the Head of Pharmacy in making future academic appointments and assigning teaching and administrative responsibilities to colleagues. Year Heads will be appointed who will have oversight of the curriculum within a specific year and who will each oversee the team of Module Leaders with responsibility for the modules in that specific year. The delivery and quality of student placements will be managed by the MPharm Placements Lead who will work closely with the Medical School Student Information and Education Office and the placement providers within a defined agreement. Attendance of students at scheduled learning sessions, including but not limited to lectures, seminars, and practical classes, is monitored electronically through swiping of student cards against the card readers in each teaching space at the beginning of each timetabled session.

Standard 9: Resources and capacity

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

As part of the annual planning process, Colleges considering new programmes can request pump-priming funding from the University. Pump-priming for Pharmacy was initially approved in January 2018; this covers as far as the 2023/24 academic year. A detailed business plan has been produced modelling all aspects of the MPharm programme, including student and staff numbers, income, and expenditure; this business plan has been approved and incorporated into the College Business Plan, which drives discussions around programme viability, resources and funding. All aspects of the pharmacy business plan are reviewed regularly, to ensure that all risks are documented and that controls are put in place to manage those risks. The pharmacy business plan and the request for capital funding to support development has been approved via the University’s Strategic Opportunities Programme Board (SOPB), and SMT and ultimately by the Finance Committee. An MPharm Project Board, which includes the Head of Pharmacy, the Head of College, the MPharm Project Manager and representatives from Estates, IT Services and Human Resources, has been established specifically for this project and will meet monthly. The MPharm programme will be supported by the Medical School Student Information and Education Office, led by the Medical School Senior Administrator; the Pharmacy business plan makes provisions for the recruitment of additional members of staff to support the extra workload involved in administering the new programme, as well as additional technician posts. The Medical School benefits from a College-level Marketing, Recruitment and International (MRI) team and this group will play an important role in making the MPharm programme a success. The Head of Pharmacy has already been appointed, along with the MPharm Programme Director, a Senior Lecturer in Pharmacy Practice, and the MPharm Project Manager. A staff recruitment plan has been developed with the aim of recruiting a total of 23.9 FTE members of academic staff by 2028/29 to give a student/staff ratio of 16.7:1. The aim is to ensure that sufficient members of the pharmacy academic staff have been appointed in a timely fashion to plan, write and deliver the degree and to ensure that the staff-student ratio remains at an appropriate level. There is also relevant expertise within the existing complement of academic staff of the Medical School, which currently delivers a variety of different clinical and non-clinical programmes. Three of the first four members of academic staff appointed to the pharmacy team are GPhC-registered pharmacists with relevant undergraduate and postgraduate teaching experience. Although appointments depend on many factors, it is anticipated that approximately one third of the pharmacy team will ultimately be practising UK pharmacists. Within the Medical School, there are also four pharmacists who teach part-time on the MBBCh Medicine programme and a number of other pharmacists employed by Swansea Bay UHB have sessional teaching responsibilities within the Medical School. The MPharm development team has been in discussions with the Academic Liaison Librarian for Medicine from an early stage to ensure necessary resources are available. An analysis has been performed of current core texts and new texts that will be required. Extensive support in using the library is provided and MPharm students and pharmacy academic staff will benefit from a dedicated team of subject specialists including the Academic Liaison
Librarian and 4.5 FTE subject librarians. MPharm students will be able to join the Society of College, National and University Libraries (SCONUL) programme, allowing access to the majority of academic libraries throughout the UK. All students enrolled on Medical School programmes are also permitted to access reference material in local Swansea Bay UHB libraries. Ample IT facilities will be available for MPharm students, who will benefit from PC suites, campus-wide free WiFi and Office365. The Singleton Park Library also has group study areas with large screens which can be booked at the library desk or online. The University currently employs Blackboard as its VLE for learning and teaching, although this is currently under review. Capital funding has been formally agreed by the University to establish a dedicated core pharmacy area at the heart of the Medical School. Co-locating pharmacy students, medical students and physician associate students has the added advantage of creating familiarity for when students work together in IPE. This capital funding will provide a Pharmacy Skills Suite, offices for pharmacy academic staff, an MPharm student common room, a pharmacy meeting room, and an office for pharmacy technicians; the Pharmacy Skills Suite is being designed as a versatile space to allow for different teaching techniques and will provide diagnostic equipment, consultation rooms, a dispensing area, offering access to a stock of medicines, and a simulated community pharmacy environment. Pharmacy will have access to existing wide-ranging facilities including multidisciplinary laboratories suitable for teaching, for example, physiology, pharmacology, basic microbiology and pharmaceutics.

**Standard 10: Outcomes**

The standard 10 outcomes were not considered at this stage but will be addressed at later steps of the accreditation process.

**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:
   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 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.

**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 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.

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**

*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

6. 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

7. 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 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

Standard 10: Outcomes

10.1 Expectations of a pharmacy professional

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

10.2 The skills required in practice

10.2.1 Implementing health policy

<table>
<thead>
<tr>
<th>Learning outcome</th>
<th>MPharm</th>
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</thead>
<tbody>
<tr>
<td>10.2.1.a Promote healthy lifestyles by facilitating access to and understanding of health promotion information</td>
<td>Shows how</td>
</tr>
<tr>
<td>10.2.1.b Access &amp; critically evaluate evidence to support safe, rational &amp; cost effective use of medicines</td>
<td>Shows how</td>
</tr>
<tr>
<td>10.2.1.c Use the evidence base to review current practice</td>
<td>Shows how</td>
</tr>
<tr>
<td>10.2.1.d Apply knowledge of current pharmacy-related policy to improve health outcomes</td>
<td>Knows how</td>
</tr>
<tr>
<td>10.2.1.e Collaborate with patients, the public and other healthcare professionals to improve patient outcomes</td>
<td>Knows how</td>
</tr>
</tbody>
</table>
10.2.1.f Play an active role with public and professional groups to promote improved health outcomes

<table>
<thead>
<tr>
<th>Learning outcome</th>
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</tr>
</thead>
<tbody>
<tr>
<td>10.2.1.f Play an active role with public and professional groups to promote improved health outcomes</td>
<td>Knows how</td>
</tr>
<tr>
<td>10.2.1.g Contribute to research &amp; development activities to improve health outcomes</td>
<td>Knows how</td>
</tr>
<tr>
<td>10.2.1.h Provide evidence-based medicines information</td>
<td>Shows how</td>
</tr>
</tbody>
</table>

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

Learning outcome

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

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

Learning outcome

<table>
<thead>
<tr>
<th>Learning outcome</th>
<th>MPharm</th>
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<tbody>
<tr>
<td>10.2.3.a Ensure quality of ingredients to produce medicines and products</td>
<td>Knows how</td>
</tr>
<tr>
<td>10.2.3.b Apply pharmaceutical principles to the formulation, preparation and packaging of products</td>
<td>Shows how</td>
</tr>
<tr>
<td>10.2.3.c Verify safety and accuracy utilising pharmaceutical calculations</td>
<td>Does</td>
</tr>
<tr>
<td>10.2.3.d Develop quality management systems including maintaining appropriate records</td>
<td>Shows how</td>
</tr>
<tr>
<td>10.2.3.e Manage and maintain quality management systems including maintaining appropriate records</td>
<td>Shows how</td>
</tr>
<tr>
<td>10.2.3.f Procure and store medicines and other pharmaceutical products working within a quality assurance framework</td>
<td>Knows how</td>
</tr>
<tr>
<td>10.2.3.g Distribute medicines safely, legally and effectively</td>
<td>Knows how</td>
</tr>
<tr>
<td>10.2.3.h Dispose of medicines safely, legally and effectively</td>
<td>Knows how</td>
</tr>
<tr>
<td>10.2.3.i Manage resources in order to ensure work flow and minimise risk in the workplace</td>
<td>Knows how</td>
</tr>
<tr>
<td>10.2.3.j Take personal responsibility for health and safety</td>
<td>Does</td>
</tr>
<tr>
<td>10.2.3.k Work effectively within teams to ensure safe and effective systems</td>
<td>Knows how</td>
</tr>
</tbody>
</table>
10.2.3 Working with others involved in service delivery

<table>
<thead>
<tr>
<th>Learning outcome</th>
<th>MPharm</th>
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</thead>
<tbody>
<tr>
<td>10.2.3.i Ensure the application of appropriate infection control measures</td>
<td>Shows how</td>
</tr>
<tr>
<td>10.2.3.m Supervise others involved in service delivery</td>
<td>Knows how</td>
</tr>
<tr>
<td>10.2.3.n Identify, report and prevent errors and unsafe practice</td>
<td>Shows how</td>
</tr>
<tr>
<td>10.2.3.o Procure, store and dispense and supply veterinary medicines safely and legally</td>
<td>Knows how</td>
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</tbody>
</table>

10.2.4 Working with patients and the public

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

10.2.5 Maintaining and improving professional performance

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

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)