

Reaccreditation of a Master of Pharmacy degree course (MPharm)

Ulster University

Report of a reaccreditation event, 26-27 May 2015

Introduction

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

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

Background

The MPharm at Ulster University is delivered by the School of Pharmacy and Pharmaceutical Science (SPPS), one of the nine schools within the Faculty of Health and Life Sciences. As part of the seven steps in the accreditation process for new MPharm degree courses, a Step 2 visit took place in April 2008, following which the then regulators (the RPSGB and the PSNI), obtained reassurances that the financial support arrangements for the proposed MPharm were robust, because the funding of the proposed programme was dependent at that time on financial support from an overseas partner, the Saad Group. A successful Step 3 visit to the Coleraine campus took place on 21 April 2009 and the first cohort of students was admitted in September 2009. Subsequent step visits took place culminating in the Step 7 and final visit in April 2013. The then team as agreed to recommend to the Registrar of the General Pharmaceutical Council and the Council of the Pharmaceutical Society of Northern Ireland that the MPharm degree delivered at Ulster University should move from a position of working towards accreditation to a position of an MPharm degree subject to reaccreditation. This was subject to a confirmatory visit by the team leader and representatives from the GPhC and PSNI to the exam board in the summer which formed part 2 of the step 7 accreditation. There were no conditions or recommendations. This meant that Ulster University had been fully accredited to deliver an

MPharm degree subject to the confirmatory visit. The period of accreditation was two years, this period being set to reflect that Ulster University was at a stage that required it to move to the education and training standards for pharmacists of the GPhC and adopted by the PSNI in 2010.

Documentation

The provider submitted submission documentation to the GPhC in line with agreed timescales and a pre-visit took place at Ulster University on 30 April 2015. During the pre-visit the schedule of meetings and timings for the reaccreditation event were confirmed and the GPhC requested that additional documents be submitted ready for the event.

The event

The event began with a private meeting of the accreditation team and GPhC representatives on 25 May 2015. The remainder of the event took place on site at Ulster University on 26-27 May 2015, and comprised a series of meetings with staff and students of the University.

Accreditation team

The GPhC's accreditation team ('the team') comprised:

Name	Designation at the time of accreditation event
Professor Stephen Denyer*	Accreditation team leader, Pro Vice-Chancellor (Learning and Teaching), University of Brighton
Professor Barrie Kellam	Accreditation team member (Academic), Professor of Medicinal Chemistry, University of Nottingham
Professor Brenda Costall	Accreditation team member (Academic), Professor of Neuropharmacology, former Head of School of Pharmacy, University of Bradford
Mrs Sandra Hall	Accreditation team member (Academic), Head of Pharmacy Practice, Leicester School of Pharmacy, De Montfort University
Mrs Barbara Wensworth	Accreditation team member (Pharmacist), Previous hospital Pharmacist, Freelance Consultant Pharmacist, Lecturer, External Verifier, assessor and writer
Mrs Linda Stewart	Accreditation team member (Pharmacist), Pharmaceutical Officer, Medicines Regulatory Group DHSSPS
Mr Owen Wood	Accreditation team member (Pharmacist – recently registered), Community Pharmacist
Mrs Leonie Milliner**	Accreditation team member (Lay), Chief Executive Officer, Council for Nutrition

along with:

Name	Designation at the time of visit
Ms Joanne Martin*	Quality Assurance Manager (Education), General Pharmaceutical Council
Dr Ian Glendenning Marshall	Rapporteur, Caldarvan Research (Educational and Writing Services)
Mr Peter McKee	Observer , Pre-registration Lead, Pharmaceutical Society of Northern Ireland

*attended pre-visit meeting on 30 April 2015

** Mrs Milliner was unable to attend the visit but submitted comments and questions that were incorporated into the team’s questions and discussions.

Declaration of potential conflicts of interest

Mrs Stewart declared that she worked for the Medicines Regulatory Group headed by Professor Mawhinney, a visiting professor in the School.

The team also met a group of 17 students comprising 2 from Year 1, 2 from Year 2, 5 from Year 3 and 3 from Year 4 along with 1 2013 graduate and current PhD student and 4 2014 graduates.

Meeting the accreditation standards

Accreditation team’s commentary	
<p>Standard 1 – Patient and public safety</p> <p>There must be clear procedures to address concerns about patient safety arising from initial pharmacy education and training. Concerns must be addressed immediately.</p>	<p>Issues relating to public safety are first introduced to students before they register onto the MPharm at Ulster. Prospective students are advised, through both the online prospectus entry and programme registration information, that there is a Code of Conduct required of Pharmacy Students that will take into consideration their behaviour both before and during their period of study, and that failure to comply with this Code of Conduct could impair eligibility for a student to register as a pharmacist. Additionally, health and safety aspects of working in science laboratories are introduced. The curriculum has been planned to ensure, as far as possible, that the sequence of material ensures that students are not required to undertake activities, tasks or assignments for which they are unprepared. Placement activities are designed to complement and build upon the knowledge and skills that have been acquired in the classroom, and no student is ever required to complete a task without this prior knowledge or development of skills. Community pharmacist placement providers told the team that the students were always highly professional and well-prepared for their placements. Similarly, students told the team that there had never been any problems with the School’s requirements for professional behaviour. OSCE and competency-based assessments, including extemporaneous dispensing, are all developed in relation to patient safety; if any student, either</p>

	<p>through inclusion or exclusion, would have put a patient at risk through their actions, the OSCE is failed. Marking criteria have been developed to ensure that any major errors, which could lead to patient safety issues, result in a failure of the OSCE.</p>
<p>Standard 2 – Monitoring, review and evaluation of initial education and training</p> <p>The quality of pharmacy education and training must be monitored, reviewed and evaluated in a systematic way.</p>	<p>The team was satisfied that the one criterion to meet this standard was met</p> <p>A Programme Management System places the responsibility for the ongoing review of programmes and enhancement of the student learning experience in the hands of the academic staff delivering the programme, and course committees consider all quality indicators as and when they are available. Standards and quality are routinely monitored through both evaluation of teaching and evaluation of modules, through module evaluation, module monitoring and Peer-Supported Review. Students have opportunities to comment annually on the teaching performance of all academic staff and each module that they are taught, although the team was told that this is not mandatory for staff. Module evaluations are discussed at the Course Committee meeting and acted upon where necessary. Placement providers have access to the materials provided to the students to ensure parity between different placement opportunities. Materials developed with input from the placements providers and teacher-practitioners provide a set of minimum experiences that a student should be exposed to, and a set of tasks/assignments related to their experiences that must be completed. In addition, all community pharmacy placement providers receive initial one-to-one training on the aims of the student placements and the outcomes desired before they are used as a placement site. The quality of placements is monitored closely by the three members of staff responsible for co-ordinating the placements, and is informed by student feedback and placement supervisor feedback, along with placement visits, if necessary. The Teacher-Practitioner network within Northern Ireland includes a teacher-practitioner (TP) based at Altnagelvin with a joint role at Ulster. A team comprising this Ulster TP, the clinical placement tutor and the lead TP for the network, has ensured the continuing development of the hospital placements for Ulster pharmacy students. All hospital pharmacist tutors who teach MPharm undergraduates in Northern Ireland are required to complete the Train the Trainers course every 3 years. The School policy on feedback to students emphasises that feedback must be timely and of high quality, within two weeks of submission date, evidently aligned to learning outcomes and assessment criteria, and providing students with an opportunity to act upon it in future assessments; students interviewed expressed themselves as satisfied with the level and timeliness of the feedback.</p>

<p>Standard 3 – Equality, diversity and opportunity</p> <p>Initial pharmacy education and training must be based on principles of equality, diversity and fairness. It must meet the requirements of all relevant legislation.</p>	<p>The team was satisfied that the two criteria to meet this standard were met</p> <p>The Equality Act 2010 was not adopted in Northern Ireland as a Statutory Instrument. However, Section 75 of the Northern Ireland Act (1998) requires the University, in carrying out its functions relating to Northern Ireland, to have due regard to the need to promote equality of opportunity: between persons of different religious belief, political opinion, racial group, age, marital status or sexual orientation; between men and women generally; between persons with a disability and persons without; and between persons with and without dependants. Equality Opportunities Monitoring Forms are completed online by all staff on recruitment and students at online registration. It was confirmed to the team that equality and diversity issues are discussed with the students. Thus, in Year 1, issues are dealt with before the first placement activity. In Year 2 the legislation is covered. In Year 3 ethical dilemmas relating to equality and diversity are included in the course, and in Year 4 all equality and diversity issues are reiterated. The team was told that on-line training for students is being developed which will include current developments in the area. Students can raise any issues related to equality and diversity through the SSCC and these matters are then discussed at School Board, with minutes subsequently disseminated to Faculty Board. All academic staff members are required to complete online Equality and Diversity training every three years, and the completion of this training is monitored by the Policy Implementation Unit. The Head of School receives a regular update on completion rates and takes appropriate action to address any deficiencies. The team was told that almost 100% of the staff had completed the assessments.</p>
<p>Standard 4 – Selection of students and trainees</p> <p>Selection processes must be open, fair and comply with relevant legislation. Processes must ensure students and trainees are fit to practise at the point of selection. Selection includes recruitment and admissions.</p>	<p>The team was satisfied that the three criteria to meet this standard were met</p> <p>All applications are made through UCAS, and details on how to apply for a place on the MPharm programme and relevant entrance requirements are found at the online prospectus entry; a sound scientific knowledge is required, and work experience in a pharmacy during school holidays or weekends is advantageous. Applicants who are given an offer are asked for the appropriate academic criteria and GCSE Maths/English/IELTS when required. All applicants who receive an offer are also advised that entry to the programme is subject to a satisfactory criminal check through Access NI and is also subject to the outcome of medical screening. The initial offer standard may vary from year to year but specific academic subject requirements for admission include: GCSE passes at Grade C or above (or equivalent) in Mathematics, English Language and Chemistry or Double Award Science. A minimum of 340 UCAS tariff points is required at A-level to include grades AAB (including Chemistry and one science subject from Mathematics, Physics or Biology). The team was told that although the School has accepted applicants holding less than the School's minimum entry requirements, and that such entrants normally struggle with the chemistry component of the course, the PASS system in which senior students coach lower level students has proven useful, and that by Year 2 there is no discernible difference in performance of such students from the regular entry qualification students.</p>

<p>Standard 5 – Curriculum delivery</p> <p>The curriculum for MPharm degrees and the pre-registration scheme must deliver the outcomes in Standard 10. Most importantly, curricula must ensure students and trainees practice safely and effectively.</p>	<p>The team was satisfied that the eleven criteria to meet this standard were met</p> <p>The team was told that the programme presented for reaccreditation represented the result of several potential iterations all with the aim of producing safe and effective practitioners. Thus, after a Year 1 that covers the basic science underpinning the programme, the proposed MPharm course is integrated around the core body systems covering the fourteen main physiological thematic areas outlined in the British National Formulary. These fourteen thematic areas have been condensed into four specific themes that form the major content of Years 2, 3 and 4 of the MPharm. In addition, a spine of professional practice skills runs throughout all four years. There is a 40-credit research project along with electives in Year 4. The documentation explained that as the School is small, with 12.6 FTE staff members responsible for delivering the programme, this has resulted in the multi-disciplinary teams responsible for programme delivery being similar across and within themes, which allows for both vertical integration from year to year and horizontal integration within years, discussed through regular team meetings and course committees. The accreditation team explored the level of integration of the course material by asking two small groups of teaching staff to describe and discuss how they delivered and assessed a series of themes in the course; these were: pharmacist independent prescribing (in both sessions), controlling microbial resistance, drug metabolism and pharmacokinetics, pharmaceutical analysis. The team was satisfied that the teaching staff worked closely together in determining the order of delivery of material to ensure that material was taught in an integrated fashion. It was clear that all the teaching staff was cognisant of the design and planned delivery of the new programme and convinced the team that they had been, and were continuing to be, working as a well-organised and integrated team. Nevertheless, the team recognised that the development of a fully integrated programme was work in progress and this will be an area that will form a part of the 3-year interim visit. The team was told that the students had been consulted on the new programme and, after expressing some concerns that had been addressed, had approved the integrated approach to be introduced into Year 4 from 2015. Students interviewed expressed themselves as favouring an integrated approach which they said was already a part of the existing programme. In particular, it was stated that integration should allow students to appreciate the importance of chemistry and formulation to the practice of pharmacy. The team was of the view that students should be consulted to a greater extent as the new programme develops and this will be an area that will also form a part of the 3-year interim visit. The team noted that In addition to the pharmacists within the staff complement, teacher-practitioners and visiting lecturers from community, hospital and industrial pharmacy practices are also involved in the delivery of the course. The team was told that students greatly appreciate the input of visiting speakers, and that the School has access to much expertise in Northern Ireland, and that visiting speakers are given honorary contracts with the University.</p> <p>The integrated teaching is assessed through integrated assessments with the strategy including a summative integrated assessment each year within the Professional Practice Skills modules. Science and practice staff work together to design both the module content and its assessment. Additionally, a summative integrated examination question in all examination papers in all years will be case study-based. Students will be supported in preparation for these integrated case studies and OSCEs with integrated seminars throughout all Professional Practice Skills spine modules. These tutorials will be case study-based</p>
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and will prepare the students for the integrated nature of the assessments. Examinations include one or a combination of: multiple choice questions; short answer questions; long (essay) answer questions; numeracy and statistics problems; case studies. Coursework assessments include a mixture of class tests, practical class completion and write-up, case-study completion, problem-based learning, portfolio completion, essays, reports, OSCEs, oral presentations, poster presentations, placement activities depending on the learning outcomes to be achieved. OSCEs include dispensing, responding to symptoms, patient counselling, medicines information, risk management, extemporaneous dispensing and problem-solving questions. Students told the team that the OSCEs would be very difficult without the experience gained during the placements. The team was told that OSCEs consist of 8-10 stations in each of years 2, 3 and 4. A matrix is developed to illustrate what is to be covered in the test, and to determine what competencies can be tested. Stations are then developed by the relevant teaching team, edited by an independent member of staff and then standard setting by the Anghoff method is applied. It is intended that each station will assess around 4 learning outcomes and students will be assessed 3 times on each learning outcome, being required to pass 2 out of 3 learning outcomes for each competency. In the case of failure of a station, all competencies covered by the station will be failed and will be reassessed with new scenarios. There was some confusion about the case of a student passing the previously failed competency but failing a competency that they had previously passed. The team recognised that that the course is evolving with both the integration of the curriculum and the assessment and the team's view was that the complex assessment strategy will need careful articulation to the students and that, because of their centrality to assessment, further work will need to be done on the consequences of failure in OSCEs. The team advised the School that this area will form part of the focus of the interim visit in 3 years' time.

Students have 2-day placements in community pharmacy in Years 1 and 2 and a 5-day placement in Year 4. In hospital pharmacy there is a 1-day placement in year 1 and 5-day placements in Years 2, 3 and 4. The documentation stated that there are 140 community pharmacies within Northern Ireland who have agreed to provide placement opportunities for Ulster pharmacy students. All new providers receive face-to-face induction training sessions carried out by members of the practice team. Students told the team that they are well-prepared in-house before going on placements. Feedback from placements is received from both student and pharmacist, and is closely monitored to ensure that each student is receiving an appropriate experience. Ulster students attend hospital placements within Northern Ireland alongside students from the Queen's University of Belfast. The Patient-Public Involvement (PPI) development within the MPharm programme has developed the students' practical experience of working with patients and/or carers. Thus, in Year 1 students have a workshop with two elderly patients and discuss issues around multiple medications, access to services, and managing their medications. In Year 2 the students have workshops with service users of Asthma UK and NI Chest, Heart and Stroke. In Year 3, students have four workshops. Three of these workshops are with individual expert patients - a diabetic patient, a patient who has received radiotherapy for breast cancer, and a patient who has undergone radiotherapy and chemotherapy for breast cancer. The fourth workshop in Year 3 is with two Parkinson's Disease patients and their carers. Students told the team that these PPI sessions with confident patients were very helpful in building up their own confidence. Development planned is to include a workshop facilitated by Age UK within the Year 4. Interprofessional education activities provide

	<p>students with experience of healthcare-based multidisciplinary, including an interprofessional learning workshop with students from Optometry, Biomedical Sciences, Dietetics and Nursing joining the Year 1 Pharmacy students for a discussion of the roles and practices of each healthcare professions. In Year 3 there are problem-solving exercises with dietetic students on vitamin supplementation for special patient groups. In Year 4 there is a problem-solving exercise with optometry students on the topic of effective prescribing with specific emphasis on therapeutic communication and clinical decision-making. A recent development is IPE workshops to include both FY0 and FY1 doctors at the Causeway hospital; that Year 2 MPharm students will work with FY0 (Year 5) medical students on case studies. Year 4 MPharm students will undertake a workshop with FY1 doctors on pharmacovigilance. This latter workshop has been trialled with students on the existing programme and has elicited positive feedback. Students interviewed told the team that they had felt confident in working with the FY1 doctors. The team agreed that the continued development of IPE activities is an area that will form a part of the 3-year interim visit.</p> <p>The team noted that the mapping of the outcomes to the assessments indicated that the outcomes tended to omit material taught in the Year 4 electives. In this respect, the team was told that as much of the final year of the programme (50 credits from 120) is not common to all students, it was considered important that the core course covered all the outcomes. However, the team also noted that the final honours classification was based only on performance in Year 4, meaning that students' ability to meet most of the GPhC outcomes, designed to ensure safe and effective practice, in Years 2 and 3 had no bearing on their final classification. It was explained that the policy is concerned with exit velocity and emanates from the University. The general consensus from staff members was that performance in Years 2 and 3 should contribute to the final classification to avoid high-performing students in the crucial elements of pharmacy not getting an appropriate award, and vice versa, but it was emphasised to the team that students have to pass all subjects in earlier years to enter Year 4. It was said that students favoured a contribution from the earlier years of the course. The team emphasised that it is not concerned with the honours classification, that being a matter for the University, but it did express some concern that the final classification awarded at Ulster is not a measure of attainment in pharmacy but a reflection of a very much narrower set of achievements defined by Year 4. In the team's view it does not engender in students the value and contribution of continuous learning and is out of step for developing the skills required of a modern healthcare professional.</p>
<p>Standard 6 – Support and development for students and trainees</p> <p>Students and trainees must be supported to develop as learners and professionals during their initial</p>	<p>The team was satisfied that the one criterion to meet this standard was met</p> <p>Each student is allocated a member of staff as their Advisor of Studies. This member of staff, who offers academic guidance and pastoral support to students throughout their university course, meets each student at least once per semester, or more often if appropriate. Staff members are given training for this role and are provided with a Code of Practice to guide them through what is expected. Students are encouraged to use their Advisor of Studies as their first point of contact over any concerns they may have, and their Advisor of Studies will also seek help for the course director or other University support services on the student's behalf if deemed necessary. Students interviewed told the team that the experience of the Advisor</p>

<p>education and training.</p>	<p>of Studies system was variable. To provide for life-long learning, students will, as they progress through the programme, engage in CPD and PDP, which is integrated into the curriculum.</p>
<p>Standard 7 – Support and development for academic staff and pre-registration tutors</p> <p>Anyone delivering initial education and training should be supported to develop in their professional roles.</p>	<p>The team was satisfied that the three criteria to meet this standard were met</p> <p>All new staff members receive three academic induction training days to give an overview of teaching and learning at Ulster; an introduction to technology-enhanced learning, and an overview of research at the University. Following Academic Induction, all new academic staff members are then expected to undertake the 60-credit Post Graduate Certificate in Higher Education Practice (PgChep) during their probationary period. ‘Train the trainers’ days are arranged annually by the Ulster teacher-practitioner in conjunction with Staff Development. Ward pharmacists who would be involved with placement students for Ulster students are invited to attend, and are expected to update this training every three years. Non-pharmacist members of staff spoke highly of the informal but effective support they had received about clinical practice; they described a very supportive and collegiate atmosphere. All visiting lecturers will be offered the opportunity of peer review of their teaching methods by an experienced member of School staff. The Head of School will be made aware of concerns that arise from this process and instigate remedial procedures. Similarly, concerns expressed during the student evaluation process will be directed to the Head of School. The School has recently introduced a workload model, which is still in developmental form which will be used by the Head of School to ensure that there is a fair and equitable balance of workload amongst all staff in the School. The Head of School described the workload model as hours-based and difficult to operate and indicated that the University aimed to move to a principles-based model. The aim is to ensure that all staff members have an appropriate balance between teaching, research/enterprise and administrative duties. The team agreed that the development of the workload model will be an item for the interim visit in 3 years’ time.</p>
<p>Standard 8 – Management of initial education and training</p> <p>Education and training must be planned and maintained through transparent processes which must show who is responsible for what at each stage</p>	<p>The team was satisfied that the one criterion to meet this standard was met</p> <p>The Course Director and the Learning and Teaching Co-ordinator on the MPharm programme are both registered pharmacists and are responsible to the Faculty Board for the management and organisation of the MPharm programme as a whole. Both roles involve an oversight of the programme to ensure that the horizontal and vertical integration of the programme is delivered with the intended student outcomes being met, with a scrutiny of all learning, teaching and assessments that take place. Each module has a module co-ordinator who is responsible for producing a detailed module handbook for the students. The module delivery teams comprise several members of staff. The module co-ordinator is responsible for ensuring that the delivery within the module is of high quality. The School has an Attendance Policy which all students receive in their Course Handbook. Students are required to attend all teaching exercises, and this is monitored by a</p>

	School-based system by the Attendance Monitor. Consequently, attendance records are kept for lectures, practical classes and seminars, which are then logged and monitored.
<p>Standard 9- Resources and capacity</p> <p>Resources and capacity are sufficient to deliver outcomes.</p>	<p>The team was satisfied that the one criterion to meet this standard was met</p> <p>The Dean of the Faculty of Life and Health Sciences has the ultimate responsibility of ensuring that the School has appropriate financial allocation, staffing and other resources to function, and the Head of School is responsible for ensuring that this financial allocation is distributed and used appropriately to maximum benefit of the students undertaking the School programmes. However, the team had great difficulty in navigating and untangling the business plan that was originally submitted and it was agreed that a revised plan would be furnished before the end of the visit. This revised plan showed the School steadily moving into surplus; it was explained that the revised plan was based on an intake of 40 MPharm students per year with a 10% attrition rate, along with the School's planned share of the income (approximately half) from a new Master of Pharmaceutical Sciences degree. Also in the revised plan, the research grants and contracts income forecast was based on a QR income from the REF of £30k per entered researcher. The team was told that the UCAS applications for the MPharm were higher than the previous years and that there were several applications for the new MPharmSci degree. Both the Pro-Vice Chancellor and the Dean stressed the strategic importance of pharmacy to the University and Faculty. It was explained that this importance had led to the subject area being made a separate school within the Faculty; this had made the School more vulnerable in terms of funding issues, but the Faculty had subsidised the School over the years and the Dean promised that it would continue to do so if necessary. Although the University was described as experiencing a difficult time financially with large cuts in its budget, it was stressed that the School was exempt from cuts that were being made in other areas of the University. The team welcomed the strong promises of support from the Faculty and University to ensure the future financial security of the School.</p>
<p>Standard 10 - Outcomes</p>	<p>The team scrutinised the learning outcomes by discussions with the teaching staff in two integration and outcomes meetings. Rather than examining each of the 58 outcomes in these sessions, a selection of eight outcomes was chosen for detailed discussion. The outcomes selected were 10.1.h (in both sessions), 10.2.1.c, , 10.2.2.a, 10.2.2.c, 10.2.3.c, 10.2.4.e, 10.2.5.a. and 10.2.5.e. Additional outcomes were covered in discussions addressing Standards 1-9 and by the team's scrutiny of the documentation.</p> <p>For each of the eight outcomes scrutinised in detail, the evidence provided by the discussions with the staff gave the team confidence that these outcomes would be met at the required level for the MPharm programme, and the team was confident that all other outcomes would be similarly met. The team agreed that following the satisfaction of the nine outcomes tested that it was confident that all 58 outcomes would be delivered at the appropriate level.</p>

Indicative Syllabus	<p>The team was content with the School's use of the Indicative Syllabus to inform its curriculum.</p> <p>The team was satisfied 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. The team also agreed that following the satisfaction of the eight outcomes tested that it was confident that all 58 outcomes would be delivered at the appropriate level.</p>
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Summary and conclusions

The accreditation team agreed to recommend to the Registrar of the General Pharmaceutical Council that Ulster University should be reaccredited to provide an MPharm degree for a further full period of six years, with a practice visit to take place in three years. This reaccreditation is not subject to any conditions or recommendations.

The visiting team recognised that the new MPharm degree is still developing. From the discussions during the event the University staff acknowledged that the course is evolving with both the integration of the curriculum and the assessment. The visiting team's view was that the complex assessment strategy will need careful articulation to the students and that, because of their centrality to assessment, further work will need to be done on the consequences of failure in OSCEs. In light of this, the visiting team did not go as far as setting any conditions or recommendations but advised the University that these areas, along with progress with the IPE strategy, will form part of the focus of the interim visit in 3 years' time.

One area of consideration shared with the University was that it was the visiting team's view that the final classification awarded at Ulster is not a measure of attainment in pharmacy but a reflection of a very much narrower set of achievements defined by Year 4. In the team's view it does not engender in students the value and contribution of continuous learning and is out of step for developing the skills required of a healthcare professional.

As a result of this event, a private record and a public report will be prepared and sent to the University for your comment on matters of factual accuracy. Once agreed by the Registrar of the GPhC and the Council of PSNI, both documents will be sent to the University for its records, and the report, along with a formal response from the University, will be posted on both Regulators' website for the duration of the accreditation period.

Ahead of receiving the report, the team fed back to the University on an area of strength in that the team recognised the strong support of the Faculty and the University in ensuring the financial security of the School.

The team's recommendations are not binding on the Registrar of the GPhC and the Council of the PSNI, who may accept, modify or reject them. Also, the accreditation team's feedback is confidential until it has been ratified by the Registrar of the GPhC and the Council of the PSNI but it may be shared with staff and students internally.

Standing condition of accreditation:

These are the conditions which will apply in all circumstances of degree accreditation:

1. The school or department of pharmacy always seeks approval from the General Pharmaceutical Council for curriculum amendments and always at least informs the General Pharmaceutical Council of significant changes to pharmacy undergraduate student numbers or resources for their teaching, learning support and assessment, including any change from internal to teaching, learning and assessment from outside the school or department;

2. The school or department of pharmacy produces and submits to the General Pharmaceutical Council annually requested data on student numbers and progression and degree awards;
3. The school or department of pharmacy produces and submits to the General Pharmaceutical Council annually requested information about the extent of human and physical resources it enjoys for the delivery and support of the degree course;
4. The school or department of pharmacy or the university makes students and potential students aware of the existence and Internet address where they can view the General Pharmaceutical Council's summary reports of degree accreditation exercises, main after- actions therefrom and of the timetable for future accreditation exercises.

The *Pharmacy Order 2010* states:

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

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

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

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

Reference: <http://www.legislation.gov.uk/ukxi/2010/231/contents/made>

Caution: Preregistration and employment as a pharmacist:

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

Appendix 1 – Standards for the initial education and training of pharmacists

Standard 1 – Patient and public safety

1. There must be clear procedures to address concerns about patient safety arising from pharmacy education and training. Concerns must be addressed immediately.

1.1. There must be effective systems in place to ensure that students *and trainees*:

- 1.1.a do not jeopardise patient safety;
- 1.1.b only do tasks for which they are competent, sometimes under supervision;
- 1.1.c are monitored and assessed to ensure they always practise safely. Causes for concern should be addressed immediately;
- 1.1.d have access to support for health, conduct and academic issues;
- 1.1.e must not be awarded an accredited degree *or pass pre-registration training* if they might pose a risk to patients or the public;
- 1.1.f understand what is and what is not professional behaviour and are familiar with the GPhC's *Code of Conduct for Pharmacy Students (2010) Standards of conduct, ethics and performance (2010)*;
- 1.1.g understand what fitness to practise mechanisms apply to them. All schools of pharmacy must have fitness to practise procedures to deal with student causes for concern;
- 1.1.h undergo required health and good character checks;
- 1.1.i understand that it is an offence to impersonate a pharmacist. Pharmacists are registrants of the GPhC.

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

2. The quality of pharmacy education and training must be monitored, reviewed and evaluated in a systematic and developmental way.

2.1 There must be systems and policies in place covering :

2.1.a information about roles & responsibilities and lines of accountability;

2.1.b university information on:

2.1.b.i entry requirements;

2.1.b.ii the quality of teaching, learning and assessment;

2.1.b.iii the quality of placements and other practice learning opportunities;

2.1.b.iv appraisal and feedback systems for students and trainees;

2.1.b.v supervision requirements;

2.1.b.vi educational resources and capacity;

These must be monitored, reviewed and evaluated systematically. When an issue is identified it must be documented and dealt with promptly;

2.1.c *pre-registration tutors evaluating trainees. To do this, tutors must have access to reliable evidence about a trainee's performance. Tutors must be competent to assess the performance of trainees;*

2.1.d *the quality and development of pre-registration tutors.*

Standard 3 – Equality, diversity and fairness

3. Initial pharmacy education and training must be based on principles of equality, diversity and fairness. It must meet the requirements of all relevant legislation.

3.1 systems and policies for capturing equality and diversity data. Concerns should be documented, addressed and disseminated;

3.2 strategies for staff training in equality and diversity

Standard 4 – Selection of students *and trainees*

- 4. Selection processes must be open, fair and comply with relevant legislation. Processes must ensure students *and trainees* are fit to practise at the point of selection. Selection includes recruitment and admissions.**
- 4.1** Selection process must give applicants the information they need to make an informed application.
- 4.2** Selection criteria must be explicit. They should include:
- 4.2.a** meeting academic and professional entry requirements;
 - 4.2.b** meeting English language requirements appropriate to MPharm degree study. Guidelines issued by English language testing bodies should be followed to ensure that admissions language requirements are appropriate;
 - 4.2.c** meeting numeracy requirements;
 - 4.2.d** taking account of good character checks, such as Criminal Records Bureau (CRB)/Disclosure Scotland checks;
 - 4.2.e** passing health checks (subject to reasonable adjustments being made). Health checks could include self-evaluations and/or evaluations by healthcare professionals;
 - 4.2.f** recognising prior learning, where that is appropriate
- 4.3** Selectors should apply selection criteria fairly. They should be trained to do this. Training should include equality and diversity matters

Standard 5 – Curriculum delivery and the student experience

- 5. The curriculum for MPharm degrees *and the pre-registration scheme* must deliver the outcomes in Standard 10. Most importantly, curricula must ensure students *and trainees* practise safely and effectively. To ensure this, pass criteria must describe safe and effective practice.**
- 5.1** Curricula must be integrated.
- 5.2** Curricula must be progressive, dealing with issues in an increasing more complex way until the right level of understanding is reached.
- 5.3** An MPharm must be delivered in an environment which places study in a professional and academic context and requires students to conduct themselves professionally. *Pre-registration training must be delivered in a professional environment which requires trainees to conduct themselves professionally.*
- 5.4** An MPharm must be delivered in an environment informed by research. This means that whether or not all staff are engaged in research, their teaching must be informed by research.
- 5.5** An MPharm degree teaching and learning strategy must set out how students will achieve the outcomes in Standard 10. Learning opportunities must be structured

to provide:

5.5.a an integrated experience of relevant science and pharmacy practice;

5.5.b a balance of theory and practice;

5.5.c independent learning skills.

5.6 The MPharm degree curriculum must include practical experience of working with patients, carers and other healthcare professionals. Practical experience should increase year on year.

5.7 There must be a clear assessment strategy for the MPharm degree. Assessment methods must measure the outcomes in Standard 10.

5.8 The MPharm degree assessment strategy should include:

5.8.a diagnostic assessments;

5.8.b formative assessments;

5.8.c summative assessments;

5.8.d timely feedback.

5.9 Academic regulations must be appropriate for a degree that is both academic and professional and may lead to further professional training. As a general principle, all assessments must be passed. This means that condonation, compensation, trailing, extended re-sit opportunities and other remedial measures should be extremely limited, if they are permitted at all. MPharm degree academic regulations may be more stringent than university norms. This may include higher than usual pass marks for assessments demonstrating knowledge and skills essential to safe and effective pharmacy practice.

5.10 Marking criteria must be used for all assessments and all pass criteria must reflect safe and effective practice.

5.11 Patient safety must be paramount in assessments: any evidence of an assessment demonstrating unsafe practise must result in failure.

5.12 A pre-registration training plan must describe how the learning outcomes for pre-registration will be delivered.

5.13 A pre-registration training plan must describe all assessments, including tutor evaluations and tutor sign-offs.

Standard 6 – Support and development for students *and trainees*

6. Students *and trainees* must be supported to develop as learners and professionals during their initial education and training.

6.1. A range of mechanisms must be in place to support students *and trainees* to develop as learners and professionals.

Standard 7 – Support and development for academic staff *and pre-registration tutors*

7. Anyone delivering initial education and training should be supported to develop in their professional roles.

7.1. There must be a range of mechanisms in place to support anyone delivering initial education and training to develop in their role.

7.2. Induction programmes are provided *for tutors* and university staff as appropriate. This should include induction programmes for non-pharmacists working on MPharm degrees.

7.3. Everyone involved in delivering the curriculum should have:

7.3.a effective supervision;

7.3.b an appropriate and realistic workload;

7.3.c effective personal support;

7.3.d mentoring;

7.3.e time to learn;

7.3.f continuing professional development opportunities.

7.4. *Tutors have an identified source of peer support.*

Standard 8 – Management of initial education and training

8. Initial pharmacist education and training must be planned and maintained through transparent processes which must show who is responsible for what at each stage

8.1. All education and training will be supported by a defined management plan with:

8.1.a a schedule of responsibilities

8.1.b defined structures and processes to manage the delivery of education and training

Standard 9 – Resources and capacity

9. Resources and capacity are sufficient to deliver outcomes.

9.1 There must be:

9.1.a robust and transparent mechanisms for securing an appropriate level of resource for delivering an accreditable MPharm degree;

9.1.b sufficient staff from relevant disciplines to deliver the curriculum to students *and trainees*. Staff must be appropriately qualified and experienced. The staffing profile must include:

9.1.b.i sufficient numbers of pharmacists – registrants of the GPhC – with experience of teaching in higher education to ensure that an MPharm degree can produce students equipped to enter pharmacist pre-registration training in Great Britain.

9.1.b.ii sufficient numbers of pharmacists to act as tutors and professional mentors at university *and in pre-registration*. Not all personal tutors must be pharmacists.

9.1.b.iii pharmacists who are leaders in the profession and in their university, who can influence university policy relevant to pharmacy

9.1.b.iv non-pharmacist academics who can influence school and university policy relevant to pharmacy

9.1.b.v staff who are sufficiently experienced to supervise research. It would be unusual for anyone to supervise research at a particular level unless they had researched to that level or beyond. New research supervisors must be mentored and signed off as being fit to supervise after a period of mentoring

9.1.b.vi science academics who understand the relevance of their discipline to pharmacy and deliver their area of expertise in a pharmaceutical context

9.1.b.vii academic pharmacists and other experienced MPharm degree staff who are able to act as mentors to non-pharmacist colleagues

9.1.c *pre-registration tutors who meet the GPhC's standards for pre-registration tutors.*

9.1.d career pathways in universities for all staff teaching on MPharm degrees, including pathways for practice staff

9.1.e clear lines of authority and responsibility for the strategic organisation and day-to-day management of placements

9.1.f training and ongoing support for all non-pharmacists involved in the delivery of MPharm degrees which must help them understand:

9.1.f.i help and understand the relevance of their work to pharmacy

9.1.f.ii how to deliver their area of expertise in a pharmaceutical context

9.1.g appropriate learning resources

9.1.h accommodation and facilities that are fit for purpose

9.1.i *pre-registration premises which meet the GPhC's standards for pre-registration premises*

Standard 10 - Outcomes

10.1 Expectations of a pharmacy professional

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

10.2 The skills required in practice

10.2.1 Implementing health policy

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

h. Provide evidence- based medicines information	Shows how	<i>Does</i>
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10.2.2 Validating therapeutic approaches and supplies prescribed and over-the-counter medicines

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

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

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

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

10.2.4 Working with patients and the public

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

10.2.5 Maintaining and improving professional performance

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

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

Indicative syllabus

A1.1 How medicines work

Therapeutics

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

Applied Physical, Chemical and Biological sciences

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

- Drug synthesis

Pharmacology, pharmacokinetics & pharmacodynamics

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

Pharmaceutical technology including manufacturing & engineering science

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

Formulation and material science

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

A1.2 How people work

Normal & abnormal structure & function

- Nutrition
- Physiology
- Pathology
- Infective processes

Sociology

- Social and behavioural science

Health psychology

- Health promotion
- Disease prevention
- Behavioural medicine

Objective diagnosis

- Differential diagnosis
- Symptom recognition
- Diagnostic tests

Epidemiology

- Aetiology and epidemiology of (major) diseases

A1.3 How systems work

Healthcare management

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

Evidence-based practice

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

Professional regulation

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

Medicines regulation

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

Clinical governance

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

Clinical management

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

Workplace Regulation

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

A1.4 Core and transferable skills

Professionalism

Research and research methods

Critical appraisal

- Audit and learning from errors

Problem solving

- Study skills
- Team-working skills

Clinical decision making

- Leadership skills

Accurate record keeping

Reflective practice (incl. continuing professional development)

Effective communication

- Interpersonal skills
- Medical terminology

Interpret & interrogate clinical data

Analyse & use numerical data

Pharmaceutical numeracy

Technological literacy

A1.5 Attitudes and values

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