General Pharmaceutical Council

Master of Pharmacy degree (MPharm); Integrated 5-year Programme

University of Nottingham

Report of a step 4 accreditation event
May 2017

Event summary and conclusions

Provider	University of Nottingham
Course	Masters of Pharmacy degree (MPharm); Integrated 5-year programme
Event type	Accreditation
Step	Step 4 part 1
Event date	3-4 May 2017
Accreditation period	2016/17 – 2022/23
Outcome	Approval The accreditation team agreed to recommend to the Registrar of the General Pharmaceutical Council (GPhC) that the University of Nottingham be permitted to progress from the process for the accreditation of a new 5-year integrated MPharm degree to the process for the accreditation of an existing 5-year integrated MPharm degree for a period of six years, with a three year interim event, subject to a Step 4 part 2 visit in June 2017. As the MPharm degree at Nottingham (including the 2+2 programme) is due to be reaccredited in 2018, the visit will include a check on the progress of the integrated 5-year programme. In the future, all Nottingham MPharm degree programmes will be considered for reaccreditation at a single event.
Conditions	There were no conditions.
Standing conditions	Please refer to Appendix 1
Recommendations	No recommendations were made.
Registrar decision	Following the event, the Registrar of the GPhC accepted the accreditation team's recommendation and approved full accreditation of the programme for a period of six years, subject to a satisfactory Step 4 part 2 visit in June 2017.
Key contact (provider)	Professor Clive Roberts, Head of School
Accreditation team	Professor Andrew Husband (Team leader), Head of School and Professor of Clinical Pharmacy, Newcastle University Mrs Karen Pitchford (Team member - Academic), Senior Teaching Fellow in Pharmacy Law and Practice, Aston University Dr Geoff Hall (Team member- Academic), Retired, formerly Associate Head Leicester School of Pharmacy, De Montfort University

General Pharmaceutical Council, MPharm (5-year integrated) step 4 accreditation report
University of Nottingham, 3- 4 May 2017

Page 2 of 22

	Mrs Gail Curphey (Team member- Pharmacist), Pharmacy consultant
	Mr Javaad Ayub (Team member- Pharmacist), Medical Affairs Manager, Guerbet Laboratories, Solihull
	Ms Leonie Milliner (Team member- Lay member), Chief Executive, Association for Nutrition
GPhC representative	Ms Joanne Martin, Quality Assurance Manager, GPhC
Rapporteur	Professor Brian Furman, Emeritus Professor of Pharmacology, University of Strathclyde

Introduction

Role of the GPhC

The General Pharmaceutical Council (GPhC) is the statutory regulator for pharmacists and pharmacy technicians and is the accrediting body for pharmacy education in Great Britain. The GPhC is responsible for setting standards and approving education and training courses which form part of the pathway towards registration for pharmacists. The UK qualification required as part of the pathway to registration as a pharmacist is a GPhC-accredited Master of Pharmacy degree course (MPharm). This accreditation event was carried out in accordance with the GPhC's 2011 MPharm Accreditation Methodology and the course was reviewed against the GPhC's 2011 education standards 'Future Pharmacists: Standards for the initial education and training of pharmacists'.

The GPhC's right to check the standards of pharmacy qualifications leading to annotation and registration as a pharmacist is the Pharmacy Order 2010. It requires the GPhC to 'approve' courses by appointing 'visitors' (accreditors) to report to the GPhC's Council on the 'nature, content and quality' of education as well as 'any other matters' the Council may require.

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

Step 4 accreditation event

The 5-year integrated MPharm degree accreditation process involves four steps before full accreditation is granted. The final step (Step 4) is made up of two parts. The first part of the two part Step 4 accreditation event involves a visit to the University by the accreditation team to review the suitability of the programme for full accreditation. In reaching its conclusion, the accreditation team must make two separate judgements: First, whether or not the University met the criteria for a new provider delivering a new 5-year integrated MPharm degree; and, second, whether or not the University met the criteria for an established provider delivering an existing 5-year integrated MPharm degree.

The second part of the Step 4 accreditation event involves a return visit to the University by the team leader and the GPhC's Quality Assurance Manager to confirm the appropriate conduct of the assessment process for the 2016/17 academic year; at that meeting, the views of external examiners will be sought.

Background

The University of Nottingham MPharm is delivered by the School of Pharmacy with a major (around 30%) input from the School of Life Sciences within the Faculty of Medicine and Health Sciences. In 2005, the University also admitted students to a 2+2 version of the MPharm, with the first two years being taught at the University's Malaysia Campus (UNMC) close to Kuala Lumpur; the first students from this programme commenced the final two years of the degree in Nottingham in September 2007, graduating

General Pharmaceutical Council, MPharm (5-year integrated) step 4 accreditation report
University of Nottingham, 3- 4 May 2017

Page 3 of 22

in 2009. The School undertook a root and branch review of the MPharm programme, to further integrate the science of pharmacy with clinical and professional practice. The last reaccreditation in April (Nottingham Campus) and May (UNMC) 2012 focussed on the new course, which was rolled out from September 2012. The reaccreditation was granted for a full six year period (with a practice visit at 3 years) with no conditions or recommendations. Since that re-accreditation, the School has built on the four-year curriculum and worked with external stakeholders to develop a five-year integrated programme, incorporating pre-registration training. The process for accrediting an integrated, five-year degree built upon an established, accredited four-year programme, comprises four steps, with steps 3 and 4 normally taking place respectively in years 4 and 5 of the programme; the completion of step 4 will also require GPhC representatives to attend the examination board at the end of year 5. The University successfully completed step 1 of this process in June 2013. On that occasion, the team had been concerned as to how the University would be able to exercise its responsibility for the consistency, validity and reliability associated with the assessment of foundation placements (now termed Professional (Pre-registration) Placements); the team therefore imposed the condition that, in order to meet criteria 5.7, 5.10 and 5.11 and standard 10, the University was required to review the assessment strategy associated with PP1 and PP2. The way in which this condition is met was addressed in the documentation for the step 2 visit. In Nov 2013, the GPhC also approved the transfer of students from the 2012-13 cohort to the 5 year course; 11 students transferred from this cohort and started their first professional placement in July 2015. At the step 2 visit in February 2015, the team agreed that the University could proceed to step 3 of the accreditation process, with no conditions or recommendations, although the University was required to continue to liaise with the GPhC to ensure the completion of the approval of tutors, sites and training plans before the first period of pre-registration training (professional placement 1). At step 3, the accreditation team agreed to recommend to the Registrar of the General Pharmaceutical Council that the 5-year integrated pre-registration MPharm degree should be permitted to progress from step 3 to step 4 of the MPharm accreditation process, subject to the condition that the University ensured that there is a clear pre-registration training plan that is fairly and consistently applied across all training sites; the assessment outlines and marking schemes were to be made clear to students and tutors well in advance of the professional placement. There was also required to be a degree of flexibility as to when the performance standards can be achieved. The condition was set in order to meet 5.12, 5.13, 6.1 and 8.1b.

To meet the condition, placement 1 training plans were modified, allowing individual Performance Standards to be assessed more flexibly across placements, and students to receive 'credit' for what they have achieved in placement 1. A detailed handover strategy, plan and document was developed to ensure that students' achievements are carried forward from the first placement, and that areas for improvement are addressed in the second placement. This underpins the training plan and formal learning contract for the second placement, as well as reducing the assessment burden by focusing on those standards which need to be approved. Discussions have taken place with the community provider to ensure that issues or concerns raised by students (or Pre-registration Tutors) are formally documented; changes have also been made to the e-Portfolio to enable Pre-registration Tutors to document these more easily. Pre-registration Facilitators continue to review formal concerns forms, and meeting records, to ensure any issues or concerns are being promptly addressed, and follow this up with students and Pre-registration Tutors during placement visits. Further training and resources for Pre-registration Tutors have been provided with training to promote a coaching style for delivering feedback, as well as training in work-based assessment to ensure that these are delivered consistently. A new Pre-registration Facilitator, with extensive recent experience in community pharmacy practice, has also been appointed to the team, and is helping to support students on community placements. Possible inconsistencies and issues between placement sectors have been explored independently with students and Pre-registration Tutors. Changes to training include a greater emphasis on cultural awareness, identifying and managing expectations, giving constructive feedback, and coaching for performance; these are reflected in training and quality visit plans. Marking schemes for all assessments within the Professional (Pre-registration) Placement modules have been reviewed and updated and are made explicit during pre-placement training with students and tutors to clarify expectations and requirements.

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 was deemed to provide a satisfactory to basis for discussion.

Pre-visit

In advance of the main visit, a pre-visit meeting took place at the University of Nottingham on 7 April 2017. 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 3 May 2017. The remainder of the event took place onsite at the University of Nottingham on 4 May 2017, and comprised a series of meetings with staff and students of the University.

Declarations of interest

There were no declarations of interest.

Key findings

Standard 1: Patient and public safety

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

The School has mechanisms in place to ensure patient and public safety. Students receive detailed guidance on what is expected on them in relation to working in or visiting practice environments such as hospitals or community pharmacies. This guidance is used in conjunction with the School's Fitness to Practise policy, along with the GPhC Code of Conduct for Pharmacy Students; students and staff members are aware of the new GPhC Standards for Pharmacy Professionals which came into force on May 12 2017 and all teaching and learning materials are being updated to reflect these. Students undertaking Professional (Pre-registration) Placements receive an induction from their placement provider; this includes mandatory training on patient safety and health and safety in the workplace. All placements are supported by a structured workbook, detailing not only activities, but also points of contact and expectations. Students are expected to demonstrate competence in the activities that are allocated to them and are supervised by an appropriately trained member of staff. During Professional (Pre-registration) Placements, students work to an agreed pre-registration training plan under a system of supervision, including direct observation, validated training, and standard operating procedures. Towards the end of the second Professional (Pre-registration) Placement, students take on more responsibility and are encouraged to work inter-dependently under a system of 'indirect' supervision. Students and staff, including all pre-registration tutors, have a duty to disclose concerns and there are systems to ensure that any concerns raised are dealt with promptly and appropriately. The MPharm course is designed to ensure that students cannot progress if they do not practise safely and might pose a risk. Placement providers are also asked to raise any concerns they may have about students. This ensures that only students who have demonstrated that they can practise safely and are aware of their responsibilities appear on the MPharm pass list. During the Professional (Pre-registration) Placements, students are assessed against the GPhC Performance Standards; if a Pre-registration Tutor is not

confident that trainees meet the required Performance Standards, such students will fail the module. Students must continue to demonstrate safe practice throughout the pre-registration training, so that their tutors can sign off their declaration of competence.

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

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

The University uses its well-established procedures for monitoring, reviewing and evaluating the MPharm programmes. The programmes are subject to annual monitoring by the University for which the School produces a report; this incorporates external examiners' reports, reviews of modules which include student evaluation of the module and of teaching, and feedback from students received via the Undergraduate Learning Community Forum (LCF), as well as the School's reflections on data relating to the number of degrees awarded at different classifications. School Module Review Panels, comprising relevant module convenors, the Director of Teaching and Learning, and the School-based Student Services Centre staff with responsibility for curriculum and quality, consider modules each semester and make any recommendations for changes to the School's Teaching and Learning Committee. University periodic reviews of the programme are undertaken every five years, the last, which had a very positive outcome, having taken place in May 2016. Biannual MPharm Forum meetings are used to share information with staff about upcoming developments and also to obtain their feedback on how the programmes are running, and as such provide an informal opportunity for review of the MPharm programmes. The School organises an annual stakeholder event for students and local pharmacists to provide updates on the MPharm programme and to obtain stakeholders' views; the Management Committee for the Professional (Pre-registration) Placements provides an opportunity for stakeholder input to the development of the 5-year integrated MPharm. Placements are covered by Service Level Contracts (SLC) and Training Placement Agreements with community pharmacies and NHS Hospital Trusts, and the Professional (Pre-registration) Placements are quality assured using Quality Standards for Local Training and Education Providers, adapted from Health Education England East Midlands, employing a cyclical approach. Feedback on all placements is obtained both from placement providers and students, and Pre-registration Facilitators undertake regular visits to placement providers.

Standard 3: Equality, diversity and fairness

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

Equality, diversity and fairness are addressed at University, Faculty and School levels. A Faculty Equality, Diversity and Inclusion Group is led by the Faculty Pro-Vice Chancellor and includes representatives from every school. The School's strategy for equality and diversity training is led by the School's Equality and Diversity Committee (EDC), the chair of which is a member of this group, as well as of the University's Gender Equality Nottingham group. These bodies consider training and staff development needs in equality and diversity. The University collects equality and diversity data in a number of ways, including when students register and as part of the annual programme monitoring exercise. These data are analysed by the School's Equality and Diversity Committee and actions are documented and shared with all staff and students. All staff members, as well as Pre-registration Tutors, undertake online training in Diversity in Learning and Teaching, Unconscious Bias, and Equality and Diversity in the Workplace. New placement providers are asked to complete a quality assurance report (based on the Health Education England multi-professional QA framework) which includes an assessment of equality and diversity in the workplace. Awareness of equality, diversity and inclusion is an integral part of the MPharm programme and students' personal and professional development. These issues are addressed in several ways, including through lectures, CPD entries, and experiences with simulated patients dealing with ethical dilemmas.

General Pharmaceutical Council, MPharm (5-year integrated) step 4 accreditation report
University of Nottingham, 3- 4 May 2017

Page 6 of 22

Standard 4: Selection of students and trainees

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

Prospective students are provided with information about the programme through the University prospectus (both online and hard copy) and attending University Open Days. Information about the 5-year integrated MPharm programme makes it clear that pre-registration training placements are guaranteed, but that students will remain students throughout their studies and will not receive a salary. Applications are reviewed centrally to check for academic qualifications, including meeting English language and numeracy requirements, as well as the applicants' motivation for studying pharmacy, and queries are referred to the MPharm Admissions Tutor. Suitably-qualified applicants based in the UK are then interviewed using multi-mini interviews (MMIs), the process also incorporating tests on calculations and on science, and a group-work exercise. For students based outside the UK, interviews are conducted either over Skype or in a one-to-one interview held either at the Malaysia campus or at an international recruitment fair. Once registered, all UK-based offer holders must complete a Disclosure and Barring Service (DBS) check. Non-UK based offer holders are required to obtain a Certificate of Good Conduct and Character prior to commencing the course; this must be obtained from a formal authority such as the police. Students also complete a health questionnaire via the Occupational Health Service, which advises the School on the health status of the student. In their third year, students are allocated to Professional (Pre-registration) Placements based on a 'matching' process that takes into account their preferences, feedback from their Personal Tutors and placement providers, and performance in matching interviews, the last including panel interviews (with representative providers from each placement sector) and two MMI stations, based respectively on calculation/formulation and clinical checking scenarios. Following interviews, students are matched to a placement and each match is discussed with providers to confirm suitability. Where students fail to be matched with an employer for a Professional (Pre-registration) Placement, the case is re-examined, along with consultation with other providers. Ultimately, if no match is made, the student may continue on the 4-year MPharm course. The students clearly understand the system for allocation of Professional (Pre-registration) Placements and are content with the matching process.

Standard 5: Curriculum delivery and student experience

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

The five-year course is almost identical to, and taught alongside, the four-year MPharm course up to the end of year 3. The first three years of the course largely comprise a series of Drug, Medicine and Patient (DMP) modules, placements in a range of pharmacy settings, and a research project in semester 2 of year 3. The DMP modules, based on particular conditions/groups of conditions, provide students with the underpinning physical, life and social science knowledge and understanding, together with the necessary professional skills. The course also includes zero-credit rated professional competency modules. In years 4 and 5, students on the five-year course expand their clinical knowledge and experience through modules which prepare them for work as a pharmacist in the UK, with an emphasis on the 76 GPhC Performance Standards for Pre-Registration Trainees; here, the students undertake a 26-week Professional (Pre-registration) Placement in each of the final two years, with support from the University across both years, to help the student meet the GPhC Performance Standards, which have also been mapped to the standard 10 learning outcomes (see appendix 2) . The focus of the first placement is on pharmacy professional and technical skills and the development of confidence and professional competence, while the second placement focuses on clinical, patient-centred practice and multi-professional team working to develop clinical competence, and provides extensive support to prepare students for the GPhC Registration Assessment. The final two years also include advanced modules undertaken at the University; these are similar to those taken by students on the 4-year programme with some modifications to enable the 5-year students to use their experience and case studies encountered during their first Professional (Pre-registration) Placement, including additional tutorials to ensure reflections on their experiences. Throughout the course, lectures, workshops, practical classes, case

studies and seminar classes are used to support students' learning. Subject knowledge and understanding and intellectual skills are assessed through a range of methods, including examination (unseen, seen, open and closed book, essays, multiple choice questions, short answer), laboratory reports, practical assessments, dissertation, essay, oral/poster presentations and project reports. Students are also required to maintain a CPD portfolio from the outset of the course in order to inculcate the concept of CPD at the earliest opportunity. Within the Professional (Pre-registration) Placements, students are evaluated by their Pre-registration Tutors against the Performance Standards using a range of work-based assessment tools to assess clinical practice and professional skills, and, once deemed competent, students are signed off against these Performance Standards. Following their first Professional (Pre-registration) Placement, students and tutors develop a handover plan, highlighting the standards that have been achieved, and also those where the students have collected evidence but have not yet been approved, which are carried forward to their second Professional (Pre-registration) Placement; this handover plan underpins the bespoke training plan for students' second Professional (Pre-registration) Placements. Students cannot pass any assessment if they demonstrate practice that might jeopardise patient safety. During the Professional (Pre-registration) Placement modules, Pre-registration Tutors are responsible for monitoring safe practice and all placement providers are required to report any concerns about students to the School.

Standard 6: Support and development for students and trainees

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

Students on the 5-year Integrated MPharm have similar support to MPharm students taking the standard 4-year programme. Throughout their studies, students have three primary contact points for support, these being their Personal Tutors, the School Welfare Officer and the University Student Services Centres. All students are allocated a Personal Tutor from the members of academic staff who teach on the MPharm programme. The Personal Tutor, who is a student's primary point of contact, will usually remain the same throughout the programme to enable tutor and tutee to build an effective working relationship. Students have several timetabled meetings with their Personal Tutor each year and these tutorials are an essential part of teaching and support. Support for continuing professional development activities is provided via Personal Tutors and is a rolling item for discussion and action in every tutorial. Students are encouraged to contact their Personal Tutor at any time by email or by telephone, and in person during normal working hours, if they have any questions or concerns, whether relating to the course or more generally. Personal Tutors are supported in their role by the School's four Senior Tutors, who oversee the operation of the School's tutoring programme. The new Student Services Centres provide a further first point of contact for student support. As well as practical issues around registration and fees for example, these Centres provide access to specialist support. A network of Welfare Officers was also established as part of the Student Service Centres; these officers are physically based in schools, including one in the School of Pharmacy, to provide support and advice to students, and are a point of referral for Personal Tutors whose tutees require help. The Welfare Officers and staff in the Student Services Centre provide students with the support and advice they need and can refer students to specialist University services, such as Academic Support, Disability Support, Financial Support, Chaplaincy and Faith, Counselling service, the Medical Centre and Mental Health team and the Careers and Employability Service; students are also encouraged to contact the Students' Union Student Advice Centre. Students continue to have access to all of these support mechanisms during their Professional (Pre-registration) Placements. In addition, they are supported by their Pre-registration Tutors as well as their Pre-registration Facilitator. While on their second Professional (Pre-registration) Placement, students are given individual support by their Pre-registration Tutor and Facilitator in job applications, and preparing for interviews, as well as support through group discussions during training days held at the University.

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

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

All new members of staff undergo induction at University level, in addition to which the School provides its own induction programme, this applying also to Teacher and Research Practitioners. New staff members are given key information such as where, when and to whom they should report on their first day, along with an induction checklist detailing activities for their first day, week and month in post; these activities include inductions on safety and IT, meetings with their line managers and a tour of the building to meet other staff members. New staff members teaching on the MPharm meet with the Director of Teaching and Learning to discuss their teaching activities, talk through the programme and identify further sources of support. All newly appointed Assistant Professors (Lecturers) must complete at least 30 credits of the Postgraduate Certificate in Higher Education (PGCHE), unless they already have an appropriate equivalent qualification. Teacher and Research Practitioners receive further support from their Lead, who ensures that they receive essential training in the use of IT systems such as the Moodle VLE; new Teacher and Research Practitioners observe lectures and workshops given by experienced staff members before they deliver their first sessions. The Pre-registration Tutors are supported in their role by the three academic Pre-registration Facilitators and are required to attend University training events, which cover introduction to the programme, definition of the respective roles and responsibilities of the Pre-registration Tutors, Facilitators and students, and GPhC guidance on tutoring, tutor development resources, and expectations, as well as using the PebblePad ePortfolio consistently to review and sign off evidence against the GPhC Performance Standards; the training sessions also provide detailed understanding of the assessment tools and how to use these consistently, how to conduct appraisals and how to give feedback to students. In addition to meeting the GPhC requirements to be registered pharmacists, the School also requires new Pre-registration Tutors to carry out a self-assessment against the competencies identified in the GPhC Tutor Development Resource, and to use this to inform their personal development plan, CPD and annual appraisal discussion. The School uses the University's on-line workload planning system (WLP) to capture activities undertaken by staff members; these include teaching, research, citizenship, and academic service. WLP data are used to inform decisions about the allocation of administrative roles and teaching allocations. Workloads for Teacher and Research Practitioners are managed by the Lead for Teacher and Research Practitioners in conjunction with the Director of Teaching and Learning against agreed principles. Hospital Pre-registration Tutors do not supervise more than two students, and community Pre-registration Tutors not more than one student at any time. Feedback from Pre-registration Tutors on the workload involved in the placements is reviewed annually. Personal support for staff members is provided primarily by their line managers through the research divisions, along with considerable peer support. Personal support for Pre-registration Tutors is provided by both their line managers and by the Pre-registration Facilitators. All new staff members are appointed an experienced mentor when they join the School and all staff can request a mentor at any time. All staff members are expected to develop a Personal Development Plan as part of the PDPR process; this should reflect both short-term and longer-term requirements for the role and consider a range of ways in which these can be supported. The University Professional Development department provides a wealth of short training courses to support specific needs across a range of areas.

Standard 8: Management of initial education and training

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

The University's Teaching and Learning Board (TLB), which reports to Senate, has overall responsibility for the University's teaching and learning provision. The Associate Faculty Pro-Vice Chancellor for Education and the Student Experience is a member of TLB and chairs the Faculty Teaching and Learning Board of which the School's Director of Teaching and Learning is a member. The Head of School, who chairs the School Management Committee, is ultimately responsible for the delivery and quality of the School's MPharm degree programmes. This is delegated to the Director of Teaching and Learning who chairs the School Teaching and Learning Committee and who works closely with the Programme Director for the 5-year integrated MPharm. The Programme Director has delegated responsibility for the quality of the Professional (Pre-registration) Placements, working closely with the providers and the Placements

and Pre-registration Manager. Coordination and delivery of both 4- and 5-year MPharm programmes is further supported by the Year Heads, Vertical Theme Leads and Module Convenors. The School's placements, including the Professional (Pre-registration) Placements, are arranged within the framework provided by the University's policy on Managing Higher Education Provision with Others. In addition, the Placement Learning Agreement for the Professional (Pre-registration) Placements is based on the Health Education England East Midlands Learning Development Agreement for non-medical training. The placements administrative team, comprising the Placements and Pre-registration Manager, Placements Administrator and Placements Assistant, is responsible for the day-to-day management of the placements, as well as for liaising with placement providers, and setting up agreements with new providers. The Programme Director for the 5-year integrated MPharm leads the development and operation of the Professional (Pre-registration) Placements. A Management Committee including the Pre-registration Facilitators and representatives from each placement provider meets at least twice a year to review the operation and strategic development of the Professional (Pre-registration) Placements. In addition, the 5-Year MPharm Operations Group meets monthly to discuss planning and operational issues associated with these placements; this group consists of the Placements and Pre-Registration Manager, the Programme Director for the 5-year integrated MPharm, Pre-Registration Facilitators, the Director of Teaching and Learning, the Head of Operations and the e-Learning and Assessment Manager.

Standard 9: Resources and capacity

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

The University has an annual planning cycle which results in an agreed budget for the following financial year. The School runs as a devolved business unit with considerable autonomy. Budgets are agreed with the Faculty Finance Manager and are approved by the University's Executive Board. Typically, the pay and non-pay budget remains similar year on year with increases for pay awards, inflation and pro-rata costs linked to student numbers. The Head of School and Head of Operations meet with the Faculty Finance Manager each month to review the budget and ensure sufficient resources are in place for delivery of the programmes. The School can apply for additional resources if required through schemes such as the Strategic Development Fund and Space Management Committee. 66 members of academic staff, of whom 14 are UK/EU-registered pharmacists, are involved in teaching on the MPharm, which provides a student-academic staff ratio of 12.8:1. In addition, the School has 36 honorary staff including current and retired pharmacists, as well as experts from industry and the profession; together with the School's four Emeritus Professors they contribute to the development of the School and its programmes through both formal and informal routes. The School also funds three community and six hospital Teacher Practitioners as well as one community and one hospital Research Practitioner, all of whom are registered pharmacists. Three pharmacist members of staff act as Pre-registration Facilitators while students undertake their Professional (Pre-registration) Placements; all three have extensive experience of supporting students during pre-registration training. They are each responsible for a group of trainees and act as professional mentors in preparing and supporting students for their pre-registration placements. The School provides comprehensive hard-copy materials for all modules. Materials, forums and interactive resources are also provided in Moodle (the University's virtual learning environment- VLE) which is supported by a dedicated School eLearning and Assessment Manager. Pharmacy's library resource needs are managed through the School Library Liaison and the Faculty Library Users' Group. Students have access to all of the University's libraries, including the Greenfield Medical Library in the Medical School. The libraries offer 24/7 opening hours during the main University examination period and hold a range of books, periodicals and online resources to which students are directed throughout their course. Students can access general IT facilities in libraries and computer rooms across University's campuses, including those in the Pharmacy School Building. Laboratory and pharmacy practice classes are held in facilities in the Pharmacy School Building and in the Medical School. The Pharmacy Professional Development suite on the ground floor of the Pharmacy Building provides 10 small group teaching rooms, a 'forum' space and atrium as social study space. Recently refurbished space on the second floor of the Pharmacy School Building provides an open-plan student social study space including

kitchen and computing facilities.

Standard 10: Outcomes

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

The learning outcomes were scrutinised through discussions with the staff. Rather than examining each of the 58 outcomes, six outcomes (10.1.f, 10.2.2.e, 10.2.3.a, 10.2.4.d, 10.2.5.c, 10.2.5.e) were selected for detailed discussion. For each of these outcomes, the evidence provided by the discussions with the staff, along with other evidence provided with the documentation, gave the team confidence that these outcomes are met at the required level; the team was confident that all other outcomes are similarly met and therefore the team was satisfied that standard 10 is met.

Indicative syllabus

The team was satisfied with the School's use of the Indicative Syllabus to inform its curriculum.

The team agreed that the MPharm degree met the requirements of Directive 2005/36/EC of the European Parliament and of the Council on the recognition of professional qualifications for the initial education and training of pharmacists.

Appendix 1 - Standing conditions

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

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

Appendix 2 – Standards

GPhC standards for the initial education and training of pharmacists

NB. Information that is shaded grey or shown in grey italics is only applicable to those wishing to offer a 5-year MPharm degree with intercalated periods of pre-registration training.

Standard 1: Patient and public safety

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

1.1 There must be effective systems in place to ensure that students and trainees:
    1.1.a   do not jeopardise patient safety;
    1.1.b   only do tasks for which they are competent, sometimes under supervision;
    1.1.c   are monitored and assessed to ensure they always practise safely. Causes for concern should be addressed immediately;

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

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

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

2.1 There must be systems and policies in place covering:
- **2.1.a** information about roles and responsibilities and lines of accountability;
- **2.1.b** university information on:
  - **2.1.b.i** entry requirements;
  - **2.1.b.ii** the quality of teaching, learning and assessment;
  - **2.1.b.iii** the quality of placements and other practice learning opportunities;
  - **2.1.b.iv** appraisal and feedback systems for students and trainees;
  - **2.1.b.v** supervision requirements;
  - **2.1.b.vi** educational resources and capacity;

  These must be monitored, reviewed and evaluated systematically. When an issue is identified it must be documented and dealt with promptly.
- **2.1.c** pre-registration tutors evaluating trainees. To do this, tutors must have access to reliable evidence about a trainee's performance. Tutors must be competent to assess the performance of trainees;
- **2.1.d** the quality and development of pre-registration tutors

Standard 3: Equality, diversity and fairness

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

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

3.2 Strategies for staff training in equality and diversity

Standard 4: Selection of students and trainees

4. Selection processes must be open, fair and comply with relevant legislation. Processes must ensure students and trainees are fit to practise at the point of selection. Selection includes recruitment and admissions.

4.1 Selection process must give applicants the information they need to make an informed application.

4.2 Selection criteria must be explicit. They should include:
- **4.2.a** meeting academic and professional entry requirements;

4.2.b meeting English language requirements appropriate to MPharm degree study. Guidelines issued by English language testing bodies should be followed to ensure that admissions language requirements are appropriate;

4.2.c meeting numeracy requirements;

4.2.d taking account of good character checks, such as Criminal Records Bureau (CRB)/Disclosure Scotland checks;

4.2.e passing health checks (subject to reasonable adjustments being made). Health checks could include self-evaluations and/or evaluations by healthcare professionals;

4.2.f recognising prior learning, where that is appropriate.

4.3 Selectors should apply selection criteria fairly. They should be trained to do this. Training should include equality and diversity matters

Standard 5: Curriculum delivery and the student experience

5. **The curriculum for MPharm degrees and the pre-registration scheme must deliver the outcomes in Standard 10. Most importantly, curricula must ensure students and trainees practise safely and effectively**. **To ensure this, pass criteria must describe safe and effective practice.**

5.1 Curricula must be integrated.

5.2 Curricula must be progressive, dealing with issues in an increasing more complex way until the right level of understanding is reached.

5.3 An MPharm must be delivered in an environment which places study in a professional and academic context and requires students to conduct themselves professionally. Pre-registration training must be delivered in a professional environment which requires trainees to conduct themselves professionally.

5.4 An MPharm must be delivered in an environment informed by research. This means that whether or not all staff are engaged in research, their teaching must be informed by research.

5.5 An MPharm degree teaching and learning strategy must set out how students will achieve the outcomes in Standard 10. Learning opportunities must be structured to provide:
5.5.a an integrated experience of relevant science and pharmacy practice;
5.5.b a balance of theory and practice;
5.5.c independent learning skills.

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

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

5.8 The MPharm degree assessment strategy should include:
5.8.a diagnostic assessments;
5.8.b formative assessments;
5.8.c summative assessments;
5.8.d timely feedback.

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

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

5.11 Patient safety must be paramount in assessments: any evidence of an assessment

demonstrating unsafe practise must result in failure.

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

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

Standard 6: Support and development for students and trainees

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

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

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

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

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

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

7.3. Everyone involved in delivering the curriculum should have:
  7.3.a effective supervision;
  7.3.b an appropriate and realistic workload;
  7.3.c effective personal support;
  7.3.d mentoring;
  7.3.e time to learn;
  7.3.f continuing professional development opportunities.

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

Standard 8: Management of initial education and training

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

8.1. All education and training will be supported by a defined management plan with:
  8.1.a a schedule of responsibilities
  8.1.b defined structures and processes to manage the delivery of education and training

Standard 9: Resources and capacity

9. Resources and capacity are sufficient to deliver outcomes.

9.1 There must be:
  9.1.a robust and transparent mechanisms for securing an appropriate level of resource for delivering an accreditable MPharm degree;
  9.1.b sufficient staff from relevant disciplines to deliver the curriculum to students and trainees. Staff must be appropriately qualified and experienced. The staffing profile must include:
    9.1.b.i sufficient numbers of pharmacists – registrants of the GPhC – with experience of teaching in higher education to ensure that an MPharm

degree can produce students equipped to enter pharmacist pre-registration training in Great Britain.

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

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

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

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

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

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

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

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

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

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

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

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

9.1.g appropriate learning resources

9.1.h accommodation and learning resources that are fit for purpose

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

Standard 10: Outcomes

10.1 Expectations of a pharmacy professional

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

10.1.h	Engage in multidisciplinary team working	Knows how	Does
10.1.i	Respond appropriately to medical emergencies, including provision of first aid	Knows how	Shows how

10.2 The skills required in practice

10.2.1 Implementing health policy

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

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

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

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

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

10.2.4 Working with patients and the public

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

General Pharmaceutical Council, MPharm (5-year integrated) step 4 accreditation report
University of Nottingham, 3- 4 May 2017

Page 18 of 22

10.2.5 Maintaining and improving professional performance

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

Appendix 3 – Indicative syllabus

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

A1.1 How medicines work

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

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

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

Pharmaceutical technology including manufacturing & engineering science
- Biotechnology
- Manufacturing methods
- Quality assurance processes
- Sterilisation and asepsis
- Environmental control in manufacturing

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

A1.2 How people work

Normal & abnormal structure & function
- Nutrition
- Physiology
- Pathology
- Infective processes

Sociology
- Social and behavioural science

Health psychology
- Health promotion
- Disease prevention
- Behavioural medicine

Objective diagnosis
- Differential diagnosis
- Symptom recognition
- Diagnostic tests

Epidemiology
- Aetiology and epidemiology of (major) diseases

A1.3 How systems work

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

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

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

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

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

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

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

A1.4 Core and transferable skills

Professionalism

Research and research methods

Critical appraisal
- Audit and learning from errors

Problem solving
- Study skills
- Team-working skills

Clinical decision making
- Leadership skills

Accurate record keeping

Reflective practice (incl. continuing professional development)

Effective communication
- Interpersonal skills
- Medical terminology

Interpret & interrogate clinical data

Analyse & use numerical data

Pharmaceutical numeracy

Technological literacy

A1.5   Attitudes and values

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