



Master of Pharmacy
degree (MPharm)

University of Lincoln

Report of a step 7 part 1 accreditation event

June 2018

Event summary and conclusions

Provider	University of Lincoln
Course	Masters of Pharmacy degree (MPharm)
Event type	Accreditation
Step	Step 7 Part 1
Event date	13-14 June 2018
Accreditation period	2017/18 - 2023/24
Outcome	<p>Approval.</p> <p>This concerns the first part of the two-part step 7 accreditation event. The second part of the event is a return visit to the School by the team leader and the QA Manager to confirm the appropriate conduct of the assessment process for the 2017/18 academic year in June 2018. At this meeting, the views of external examiners will be sought</p> <p>In reaching its conclusion based on the Step 7 visit, the accreditation team made two separate judgements:</p> <ol style="list-style-type: none"> 1. whether or not the school met the criteria for a new provider delivering a new MPharm degree; and 2. whether or not the school met the criteria for an established provider delivering an existing MPharm degree <p>The accreditation team agreed that both sets of criteria had been met.</p> <p>Consequently, the accreditation team agreed to recommend to the registrar that the University of Lincoln be permitted to progress from the process for the accreditation of a new MPharm degree to the process for the reaccreditation of an existing MPharm degree for a full period of 6 years Following a satisfactory outcome of the Step 7 Part 2 visit, University of Lincoln MPharm graduates will be permitted to apply to enter pharmacist pre-registration training in Great Britain.</p>
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 7 Part 2 visit

Key contact (provider)	Dr Paul Grassby, Head of School
Accreditation team	Mr Peter Curphey (Team Leader), Pharmacy consultant Professor Brenda Costall (Academic), Professor of Neuropharmacology, Former Pro-Vice Chancellor Planning, Research and Resources, Deputy Vice Chancellor and Head of Pharmacy, University of Bradford Professor Chris Langley (Academic), Professor of Pharmacy Law & Practice and Head of the School of Pharmacy, Aston University; Associate Dean, Taught Programmes, School of Life and Health Sciences Miss Raminder Sihota (Pharmacist), Senior Manager and Professional Development, Boots UK Mrs Samantha Amos (Pharmacist – recently registered), Senior Clinical Pharmacist, Maidstone and Tunbridge Wells NHS Trust Ms Susan Bradford (Lay member), Solicitor (non-practising)
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>

Process for a Step 7 accreditation event

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

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

Background

The MPharm at the University of Lincoln is delivered by the School of Pharmacy, which is one of six schools/units within the College of Science. Following a successful step 1 event in June 2011, a step 2 event was held on June 5, 2013. On that occasion, the proposed MPharm degree was permitted to progress to step 3 of the accreditation process. However, the team had noted that some areas of standard 5 required revisiting in preparation for a successful step 3 accreditation. These related to the integration and progressive nature of the curriculum, the appropriateness of the academic regulations, and the marking criteria, with pass criteria reflecting safe and effective practice. Consequently, in order to check on progress and facilitate the transition to step 3, a monitoring visit was conducted on 23 September, 2013 at the University by representative members of the accreditation team from step 2 when it was concluded that the development of the MPharm degree was making good progress towards a successful step 3 accreditation. Accordingly, a step 3 visit took place on January 23-24, 2014 when the University was permitted to move from step 3 to step 4 of the accreditation process, subject to two conditions, these being first the requirement to devise a clear and coherent assessment strategy that is evidence based, robust, reliable and valid and second, the urgent need to appoint a programme leader; these conditions were subsequently met and the University admitted its first students in September 2014. A step 4 accreditation event was held in April 2015, following which the University was permitted to move to step 5 of the accreditation process, with the recommendation that the School should ensure the implementation of the inter-professional education that had been articulated in the strategy. The step 5 event took place in June 2016 when the team recommended progression to step 6 without any conditions or recommendations.

Documentation

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

Pre-visit

In advance of the main visit, a pre-visit meeting took place at the University of Lincoln on 22 May 2018. 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 13 June 2018. The remainder of the event took place onsite at the University of Lincoln on 14 June 2018, and comprised a series of meetings with staff and students of the University.

Declarations of interest

Professor Langley declared that Mark Brennan, currently Deputy Head of School at the University of Lincoln, is moving to Aston University. The team agreed that this did not constitute a conflict of interest.

Key findings

Standard 1: Patient and public safety

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

Provider's commentary:

The School has established systems to ensure that students do not jeopardise patient safety. On entry to the MPharm programme, students are subject to good character and occupational health checks, and, during their induction to the MPharm programme, they are introduced to their responsibilities as future health-care professionals, including the GPhC 'Standards for Pharmacy Professionals' and the overarching primacy of patient and public well-being. The University has a Fitness to Practise policy that incorporates the requirements of the GPhC. This policy requires students to disclose any issue that might affect their or their colleagues' ability to practise safely during and subsequent to the MPharm programme. The Fitness to Practise policy is introduced to students at induction, and reinforced at the start of every year, along with the GPhC Standards for Pharmacy Professionals, which are the prime benchmark of appropriate conduct, along with the University's own expectation of student responsibilities and behaviours as defined in its Student Charter and Code of Ethics; students are required to declare each year that they agree to comply with the GPhC Standards for Pharmacy Professionals. Before students undertake any patient-facing activities or placements, they receive appropriate training and assessment in terms of health and safety and their professional responsibilities, as well as expectations and boundaries. Placement supervisors are expected to report any unsafe practices by students, and are instructed to contact the School should they have any significant concerns. Students are never placed in a situation where they are asked to work with patients or the public beyond their competence. All patient-facing activities take place under the supervision of a member of teaching staff or, in the case of placement activities, under the supervision of a pharmacist or other registered health care professional. In all assessed work, students will fail any element of assessment if they demonstrate potentially dangerous or unsafe practice; such incidents trigger a remedial process with which the students must engage and which must be completed before they are allowed to participate in any patient-facing activities. The combination of the Fitness to Practise process, pass/fail competency assessments and marking criteria, ensure that students will not be awarded an accredited degree if they are unsafe for practice and might constitute a threat to the public.

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

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

There are systems in place to monitor, review and evaluate entry requirements, the quality of teaching, learning and assessment, and of placements and other practice learning opportunities, as well as educational resources and capacity. The University's Academic Board is responsible for general issues relating to teaching and courses, including student admission criteria, the appointment of external examiners, and the policies and procedures for assessment of students' academic performance, as well as the content of courses. Academic provision is monitored by the University's Office of Quality, Standards and Partnerships, which assures and enhances the quality and standards of the degree awards; the Office is responsible to the Academic Board through the Academic Affairs Committee. The University has a standardised, centrally-managed module feedback process, which provides student commentary on, for example, teaching on the module, the relevance of the module, academic support, the provision of feedback, and module organisation. In addition to the centrally managed module feedback, the School evaluates individual teaching and learning activities in the MPharm programme, for example, in relation to placements and inter-professional education. Student feedback on the programme is also obtained via the MPharm Staff Student Liaison Committee (SSLC) which meets

monthly during term time; this committee comprises elected student representatives for each year of the programme with staff representation. Actions are reviewed at subsequent meetings, with the outcomes being disseminated via the student representatives and made available on the University's virtual learning environment, Blackboard. The results of module evaluations are discussed at the SSLC and Subject Boards, as well as at the end of the academic year during the School's annual review. The School also obtains informal feedback from students whose individual views can be expressed to personal tutors, and year tutors, as well as to senior staff members such as the Programme Director. Every placement is evaluated by the students; this provides information on the placement host sites which is used by the Placement Coordinator as part of the overall quality assurance of placements, this using a framework based on the Health Education East Midlands Quality Standards for Local Training and Education providers. The quality assurance of community and hospital placements is facilitated by having a teacher practitioner based in every site to give consistency. A meeting is held annually with the placement providers to review feedback on the year's activities and to plan for the coming year. The Head of School produces an Annual Monitoring Report and action plan, which covers evaluations and feedback obtained through the above mechanisms, as well as the School's results from the National Student Survey; this AMR is considered by the College Academic Affairs Committee, and subsequently by the University Academic Affairs Committee.

In the early stages of development of the MPharm programme the School's External Advisory Board was helpful in shaping the design of the programme. As the programme has developed, the emphasis has shifted from a predominantly employer perspective to a patient and public viewpoint; this has resulted in focus-group discussions with representatives of a large number of patient organisations. The School now contributes to a 'patient partnership participation' post located in the School of Health and Social Care; this post has considerably strengthened the involvement of local patients and carers. The University has recruited a large cohort of patients and carers, who are used extensively throughout the MPharm programme. The 2017/18 annual review of the MPharm had identified a large number of successes, including favourable module evaluations, low student attrition rates, a strong placement programme, good patient and public involvement, and a very high level of student engagement, as well as excellent results in the Oriel selection process for pre-registration training places.

Standard 3: Equality, diversity and fairness

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

The University is committed to providing an inclusive and positive environment and to supporting the diversity of students and staff and actively promotes an organisational culture where individual difference is appreciated and respected, ensuring equitable and fair treatment for all. The University actively fosters an environment that is free from unfair and unlawful discrimination and harassment and will not tolerate discrimination based on the protected characteristics of age, disability, gender, gender reassignment, race, religion, sexual orientation, and/or marriage and civil partnerships, maternity and pregnancy. There is a requirement in the induction process for new staff members to familiarise themselves with the Equality and Diversity Policy and Respect Charter, and there is a module on Equality and Diversity within the mandatory online training package. The University holds an Athena SWAN Bronze Award, with plans to apply for a Silver Award, as well as for all schools in STEM subjects to apply for individual bronze awards. Student equality data are collected and analysed with the ultimate aim of advancing the University's understanding of students' degree attainment by the equality strands of disability, gender and race; this is work in progress. The Student Wellbeing Centre, provides a wide range of support services to students with disabilities. The principles of equality, diversity and fairness are embraced within the curriculum through the use in teaching and assessment of numerous case studies based on diverse patients who cover the protected characteristics, including ethnicity, and which reflect the real-life population. Teaching is inclusive with appropriate adjustments being made to deal with disabilities.

Standard 4: Selection of students

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

The School website, along with the prospectus provide details of the selection criteria for applicants. These include the academic qualifications for entry to the MPharm programme and the application procedure. The websites include information about the University, the philosophy and structure of the MPharm provision, and pharmacy career options. At the time of receiving offers of a place on the programme, students are reminded that they will be entering a professional programme, and that they will be required to undergo health and good character checks; they are also told about the importance of the GPhC's 'Standards for Pharmacy Professionals'. Applications are screened by the central Admissions Department. Although applicants are not interviewed as part of the selection process, all students who qualify to be made an offer are required to visit the School of Pharmacy for a series of discussions and activities. Applications are only progressed to the offer stage once applicants have participated in one of these visits; alternative arrangements are made for those who are based overseas or who have a disability that prevents them from attending. The School aims to admit a range of students coming from a variety of backgrounds and having a variety of qualifications, with the central University admissions team providing good advice on their equivalence. The School now accepts students onto the MPharm from the University's Pharmacy with Science Foundation Year, to which students can be admitted without any science qualifications. This programme was established to meet the requirements of applicants who have not quite met the academic standards for direct entry to the MPharm, as well as those who have taken the arts route but who want to enter pharmacy; this gives the opportunity for bright, arts-educated students to study pharmacy. Students exit the Foundation Year having acquired a great deal of core science knowledge covering mathematics, biology and chemistry, and are equivalent to those who have completed A-levels; the course also includes a pharmacy specific module, and, to progress to the MPharm, students on the Foundation Year must score at least 70% across all of the modules.

Standard 5: Curriculum delivery and student experience

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

The curriculum has been designed to produce an integrated, patient-focused pharmacy course in which the distinctions between the traditional disciplines of the subject are removed, and in which clinical cases are used to allow students to apply their knowledge to the solution of problems. The organising force for the programme is the 'human life cycle', with the first year covering 'early years', second year 'growing up', third year 'middle age' and the final year dealing with 'twilight years'. The programme becomes progressively more integrated across the years, and the patients used in case studies are increasingly complex in relation to the nature and number of conditions from which they suffer, their drug treatment, and the factors that affect drug responses. The programme is delivered by a combination of academic study within the University, practice placements in different branches of the profession and other healthcare environments, and various in-house, patient-facing activities. Teaching employs a variety of approaches, but is delivered mainly within the context of the clinical presentations and associated case studies to encourage independent learning skills as well as problem-based learning to develop team-working skills. The emphasis is on student-centred learning, avoiding excessive amount of didactic teaching and encouraging students to discover information in a directed/facilitated way. Exposure to patients with a variety of conditions is achieved through a formal programme of placements, as well as regular in-house contact in the form of patient interviews and consultations, and pharmaceutical care planning, culminating in integrated clinical care planning with elderly patients in Year 4. The School has access to a growing cohort of patients for in-house teaching activities; these include patients with a variety of health conditions such as mental health problems, GI disorders, diabetes, Parkinson's disease, respiratory and cardiovascular disease. Professional medical actors are used to simulate some conditions

such as schizophrenia. The formal placement programme provides experience in hospital and community pharmacy, as well as in GP practices. In Year 4, students undertake placements in a variety of settings where they are provided with a choice of healthcare environments such as GP practices, mental health, or hospices. By the end of the programme, students have acquired a great deal of confidence and competence in dealing with patients. The development of a full inter-professional education (IPE) strategy at Lincoln has created multiple opportunities for meaningful IPE experiences for MPharm students. Currently, IPE activities involve MPharm students working with students of nursing, medicine, biomedical science, occupational therapy, and social work, and cover a variety of tasks including discussion of ethical dilemmas, ward-based activities, prescribing, diagnostic testing, mental health care, and discharge planning. The new medical school, to be established in the University from 2019, will offer further opportunities for inter-professional education with medical students. The School's first cohort of students has now completed the final year, which comprises two 60-credit modules, one of which incorporates the research project, as well as two electives chosen from a range of topics including 'emerging therapeutics', 'natural products', 'toxicology', 'advanced pharmacogenomics' and 'healthcare education'. The final year learning focuses on disorders that are more common in old age, these including COPD, pneumonia, lung and prostate cancer, neurodegenerative diseases, insomnia, osteoporosis, and chronic kidney disease.

The assessment strategy has been designed to ensure the meeting of the standard 10 learning outcomes at the appropriate levels and to ensure that students will be safe and effective practitioners. Each module assessment comprises two main components, these being an examination and an integrated portfolio of coursework assessments, each component contributing 50% to the module mark. The portfolio includes a wide range of assessments such as placement tasks and reflections, laboratory reports, PBL presentations, patient profiles, and care plans from work with patients, as well as a synoptic assessment. In examinations, knowledge is tested using multiple choice questions, short answer questions and extended matching questions; competence is tested, for example, through objective structured clinical examinations (OSCEs), placement tasks, care plans, calculations tests, and continuing professional development (CPD). Specific marking criteria for individual assessments have been developed to ensure that these are consistent with safe and effective practice. Potentially unsafe actions in assessments results in an automatic fail of that assessment element. Remedial action in terms of a root cause analysis and risk assessment need to be submitted by the student. All assessments must be passed to permit progression to the next level of the programme or graduation.

Standard 6: Support and development for students

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

Student support is regarded as the collective responsibility of all members of academic staff who are responsible for actively helping students to realise their potential and for ensuring that support is directed towards securing the students' best interests. To facilitate the transition of students from school to the University, the School employs a 'Transition and Learning Support' lecturer, who provides sessions for students with particular needs, including those who do not have A-level qualifications in chemistry or biology, or those requiring assistance with mathematics. A key component of the support provided for students is the personal tutor system, whereby each student is allocated a named member of staff who acts in that capacity. All MPharm students are introduced to their personal tutors during the first year 'Welcome Week'. Personal tutors provide both academic and pastoral support for their students, monitoring their progress, and offering advice and help, including guiding students to the appropriate University support mechanisms. A new system for assessing CPD and professionalism based on the GPhC's standards for pharmacy professionals has been introduced; this system, known as LinCAPP (Lincoln CPD and Professionalism Portfolio) is linked to the personal tutor system, as students must complete tasks before each tutor meeting. The Senior Tutor oversees the student support system and is also available for student consultation. Students may also consult any other members of staff, with School having an 'open-door' policy. Year Tutors regularly review student engagement and provide support and encouragement as appropriate. Persistent non-engagement is escalated to the Senior Tutor

and ultimately can be referred to the Fitness to Practise procedure. The School of Pharmacy Placement Coordinator deals with any problems that arise during the student placement scheme. Peer support is available to students within the Student Pharmacy Student Society and through the School's '#PharmacyFriends' programme. The latter is a buddy/mentoring system managed by one of the teacher practitioners, and through which students work in mixed groups from all four years; the groups provide mutual personal support, for example, in settling into the University, and help with studies, such as support for students' CPD, as well as offering collaboration in citizenship activities such as volunteering within the University and undertaking charity work. Students are provided with advice and assistance in procuring pre-registration training placements, including assistance in the Oriel (HEE) application process, along with careers advice generally.

Standard 7: Support and development for academic staff

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

A range of mechanisms is in place within the University to support and develop teaching staff, and there is a comprehensive induction programme for new members of teaching staff. The University induction programme is supplemented by an additional process in the School, whereby non-pharmacy-qualified staff members are allocated to a pharmacist on the teaching staff to help them orientate their teaching to pharmacy, including professionalism and the GPhC Standards for Pharmacy Professionals. This is also embedded in the organisation of the group tutorials, where pharmacist and non-pharmacist tutors are paired to conduct joint group tutorials with their tutees. With the cooperation of local providers of pharmaceutical services, including the School's placement providers, non-pharmacy-qualified staff members undertake observational visits to community and hospital pharmacies. Similarly, pharmacist teacher-practitioners spend time in the research laboratories of the School. All members of academic staff undergo an annual appraisal with their line managers; the academic workload model is aligned with the appraisal process, and this results in an appropriate and realistic workload being agreed with members of staff. The implementation of the academic workload model also allows the Head of School to ensure that all members of staff have time to learn and update their skills. Within the School of Pharmacy, all staff members are expected to continually develop their professional skills and, as part of their annual appraisal, are supported in identifying and engaging actively with staff development opportunities, including attendance at external conferences and/or training courses; the Head of School allocates funds for staff training. As part of the probation process, new members of staff are allocated a more experienced member of staff as a mentor, both for teaching and for project supervision. All members of academic staff participate in peer review of teaching, which is managed by the School's Peer Review of Practice (PROP) coordinator. The University has instigated a new academy for staff, the Lincoln Academy of Learning and Teaching (LALT) which includes all members of academic and support staff who teach; this is a collective, where colleagues are encouraged to innovate, collaborate and participate in themes and projects that actively support teaching practice. Within the School, all members of the teaching staff have either obtained 'Associate' status of the Higher Education Academy, or will be submitting applications in the coming months. Every two years, the University commissions a staff survey and the most recent results show a high degree of staff satisfaction within the School.

Standard 8: Management of initial education and training

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

The Head of School is the budget holder and is responsible for managing the MPharm programme and the staff involved in its delivery; the Head of School's responsibilities include the annual course monitoring process, responding to external examiner comments and reporting to the College of Science Academic Affairs Committee. Currently, the Head of School is also the MPharm Programme Lead, but now that the MPharm is fully established, this role will be delegated to an established staff member. The Deputy Head is the strategic lead for education and is responsible for quality management and enhancement, staff development, fitness to practise, timetabling, and leading on accreditation matters,

as well as being responsible for administration of the undergraduate admissions process; the Deputy Head is also the senior tutor. Again, now that the MPharm is fully established, and that full accreditation has been achieved, as well as academic staff having acquired a breadth and depth of experience, some of these roles will be allocated to other staff members, and the Deputy Head role will now mirror the equivalent role in schools across the University. Each year of the MPharm has a Year Lead, who is responsible for the coherent presentation and management of teaching, learning and assessment activities of both the modules within each year of study. The forum for discussions on the development and implementation of the MPharm programme is the MPharm Subject Committee, which has full staff and student representation. This is supported by regular programme delivery meetings. This team approach is crucial for the success of the MPharm programme, and evidence to date is that the approach is working well, with all staff contributing strongly to team meetings. There is clear delegation of roles within the School of Pharmacy staff, for example, with the Placement Coordinator overseeing liaison with placement providers and the quality assurance of the placements, and the Senior Tutor overseeing the student support system, managing personal tutoring, and providing support and guidance to the Year Tutors and Personal Tutors in their roles.

Standard 9: Resources and capacity

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

The Head of the School is the independent, non-pay budget holder for the School of Pharmacy, and is a member of the College Management Team. Allocation of resources to the four individual colleges is made by the University Senior Leadership Team, and then devolved to individual schools by the Head of College. As part of resource allocation, all established schools are subject to periodical review, one purpose of which is to assess the appropriate level of resource. The School of Pharmacy is a major strategic investment for the University and has been in receipt of considerable start-up funding, including the new Joseph Banks building and equipment. The salary and non-pay budget allocation is made in accordance with the current business plan. As part of the University's annual target setting and budgeting process, the four colleges are collectively required to generate sufficient contribution to more than cover central costs, thereby supporting the University's future sustainability. The colleges have separate targets, which are influenced by their individual characteristics and stages of development. Capital developments within the University, including for the School of Pharmacy, are funded out of central cash flow, and are not accounted for on an individual College basis. The College of Science has a College Manager, and a dedicated senior finance officer for the College. The finance officer meets monthly with the Head of School to review progress against the budgets. The University Senior Leadership Team and the Board of Governors of the University approved the initial 20-year business plan, presented at previous accreditation steps; this plan encompassed a pump-priming approach to the development of the pharmacy provision at Lincoln. To date, all members of academic staff have been appointed in line with the staffing schedule in the business plan, with a total of 18.3 FTE against a student total of 204, compared with the business plan projection of 217 students. While the team had been concerned about the relatively low MPharm student numbers and the consequent implications for sustainability of the programme, undergraduate applications are now increasing and student recruitment will be facilitated by the recently established Pharmacy with Science Foundation Year; the School now has metrics that will help recruitment. Current revenue shortfalls in cash flow for pharmacy are absorbed within the overall College of Science targets in each year. The University is confident in the School team and in the sustainability of the MPharm programme, and was impressed by the performance of the students in the Oriel process, thus suggesting good employability prospects. Pharmacy is key to the University's strategy and eventually will become self-sustaining and a net contributor to the institution; the University supports the School's aspiration to grow in supporting the health of the Lincolnshire community. The teaching and learning infrastructure in the Joseph Banks Laboratories includes a dedicated clinical practice suite, a dedicated medicines information/CAL centre, and six dedicated consultation rooms, as well as other rooms for tutorials, meetings and problem-based learning. The remainder of the building houses state-of-the-art research laboratories and offices. Teaching laboratories are located in the Science Centre, and the University also has ample well-equipped teaching and learning

rooms which can be booked centrally, as well as comprehensive IT facilities and workstations, Wi-Fi throughout the campus and its Blackboard virtual learning environment; there is a well-stocked library.

Standard 10: Outcomes

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

During the event, the team scrutinised the learning outcomes by discussions with the teaching staff. Four outcomes were selected for detailed discussion, these being 10.2.1.c, 10.2.3.k, 10.2.4.e, and 10.2.5.a (see Appendix 2). Here, the team explored how the outcomes were delivered, how knowledge was integrated, and how the outcomes were assessed to show the appropriate level of achievement ('knows how', 'shows how' or 'does'). Having discussed these outcomes, and having scrutinised the documentation relating to these and to the other outcomes, the team was confident that all 58 outcomes are met at the appropriate levels.

Indicative syllabus

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

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

Appendix 1 - Standing conditions

The following are standing conditions of 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 if they might pose a risk to patients or the public;
- 1.1.f understand what is and what is not professional behaviour and are familiar with the GPhC's *standards for pharmacy professionals (2017)*;
- 1.1.g understand what fitness to practise mechanisms apply to them. All schools of pharmacy must have fitness to practise procedures to deal with student causes for concern;
- 1.1.h undergo required health and good character checks;
- 1.1.i understand that it is an offence to impersonate a pharmacist. Pharmacists are registrants of the GPhC.

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

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

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

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

Standard 3: Equality, diversity and fairness

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

- 3.1 Systems and policies for capturing equality and diversity data. Concerns should be documented, addressed and disseminated;
- 3.2 Strategies for staff training in equality and diversity

Standard 4: Selection of students

4. Selection processes must be open, fair and comply with relevant legislation. Processes must ensure students *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 must deliver the outcomes in Standard 10. Most importantly, curricula must ensure students practise safely and effectively. To ensure this, pass criteria must describe safe and effective practice.

- 5.1** Curricula must be integrated.
- 5.2** Curricula must be progressive, dealing with issues in an increasing more complex way until the right level of understanding is reached.
- 5.3** An MPharm must be delivered in an environment which places study in a professional and academic context and requires students to conduct themselves professionally.
- 5.4** An MPharm must be delivered in an environment informed by research. This means that whether or not all staff are engaged in research, their teaching must be informed by research.
- 5.5** An MPharm degree teaching and learning strategy must set out how students will achieve the outcomes in Standard 10. Learning opportunities must be structured to provide:
 - 5.5.a** an integrated experience of relevant science and pharmacy practice;
 - 5.5.b** a balance of theory and practice;
 - 5.5.c** independent learning skills.
- 5.6** The MPharm degree curriculum must include practical experience of working with patients, carers and other healthcare professionals. Practical experience should increase year on year.
- 5.7** There must be a clear assessment strategy for the MPharm degree. Assessment methods must measure the outcomes in Standard 10.
- 5.8** The MPharm degree assessment strategy should include:
 - 5.8.a** diagnostic assessments;
 - 5.8.b** formative assessments;
 - 5.8.c** summative assessments;
 - 5.8.d** timely feedback.
- 5.9** Academic regulations must be appropriate for a degree that is both academic and professional and may lead to further professional training. As a general principle, all assessments must be passed. This means that condonation, compensation, trailing, extended re-sit opportunities and other remedial measures should be extremely limited, if they are permitted at all. MPharm degree academic regulations may be more stringent than university norms. This may include higher than usual pass marks for assessments demonstrating knowledge and skills essential to safe and effective pharmacy practice.
- 5.10** Marking criteria must be used for all assessments and all pass criteria must reflect safe and effective practice.
- 5.11** Patient safety must be paramount in assessments: any evidence of an assessment demonstrating unsafe practise must result in failure.

Standard 6: Support and development for students

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

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

Standard 7: Support and development for academic staff

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

- 7.1.** There must be a range of mechanisms in place to support anyone delivering initial education and training to develop in their role.
- 7.2.** Induction programmes are provided for and university staff as appropriate. This should include induction programmes for non-pharmacists working on MPharm degrees.
- 7.3.** Everyone involved in delivering the curriculum should have:
- 7.3.a** effective supervision;
 - 7.3.b** an appropriate and realistic workload;
 - 7.3.c** effective personal support;
 - 7.3.d** mentoring;
 - 7.3.e** time to learn;
 - 7.3.f** continuing professional development opportunities.
- 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. Staff must be appropriately qualified and experienced. The staffing profile must include:
 - 9.1.b.i** sufficient numbers of pharmacists – registrants of the GPhC – with experience of teaching in higher education to ensure that an MPharm degree can produce students equipped to enter pharmacist pre-registration training in Great Britain.
 - 9.1.b.ii** sufficient numbers of pharmacists to act as tutors and professional mentors at university. Not all personal tutors must be pharmacists.
 - 9.1.b.iii** pharmacists who are leaders in the profession and in their university, who can influence university policy relevant to pharmacy
 - 9.1.b.iv** non-pharmacist academics who can influence school and university policy relevant to pharmacy
 - 9.1.b.v** staff who are sufficiently experienced to supervise research. It would be unusual for anyone to supervise research at a particular level unless they had researched to that level or beyond. New research supervisors must

- be mentored and signed off as being fit to supervise after a period of mentoring
- 9.1.b.vi** science academics who understand the relevance of their discipline to pharmacy and deliver their area of expertise in a pharmaceutical context
- 9.1.b.vii** academic pharmacists and other experienced MPharm degree staff who are able to act as mentors to non-pharmacist colleagues
- 9.1.c** *pre-registration tutors who meet the GPhC's standards for pre-registration tutors;*
- 9.1.d** career pathways in universities for all staff teaching on MPharm degrees, including pathways for practice staff
- 9.1.e** clear lines of authority and responsibility for the strategic organisation and day-to-day management of placements
- 9.1.f** training and ongoing support for all non-pharmacists involved in the delivery of MPharm degrees which must help them understand:
 - 9.1.f.i** help and understand the relevance of their work to pharmacy
 - 9.1.f.ii** how to deliver their area of expertise in a pharmaceutical context
- 9.1.g** appropriate learning resources
- 9.1.h** accommodation and learning resources that are fit for purpose

Standard 10: Outcomes

10.1 Expectations of a pharmacy professional

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

10.2 The skills required in practice

10.2.1 Implementing health policy

Learning outcome	MPharm
10.2.1.a Promote healthy lifestyles by facilitating access to and understanding of health promotion information	Shows how
10.2.1.b Access & critically evaluate evidence to support safe, rational & cost effective use of medicines	Shows how
10.2.1.c Use the evidence base to review current practice	Shows how

10.2.1.d	Apply knowledge of current pharmacy-related policy to improve health outcomes	Knows how
10.2.1.e	Collaborate with patients, the public and other healthcare professionals to improve patient outcomes	Knows how
10.2.1.f	Play an active role with public and professional groups to promote improved health outcomes	Knows how
10.2.1.g	Contribute to research & development activities to improve health outcomes	Knows how
10.2.1.h	Provide evidence- based medicines information	Shows how

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

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

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

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

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

10.2.4 Working with patients and the public

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

10.2.5 Maintaining and improving professional performance

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

Appendix 3 – Indicative syllabus

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

A1.1 How medicines work

Therapeutics

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

Applied Physical, Chemical and Biological sciences

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

Pharmacology, pharmacokinetics & pharmacodynamics

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

Pharmaceutical technology including manufacturing & engineering science

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

Formulation and material science

- Materials used in formulations and devices
- Biopharmaceutics, developmental 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)*