Newcastle University
Report of a step 4-7 accreditation event
July 2018
# Event summary and conclusions

<table>
<thead>
<tr>
<th>Provider</th>
<th>Newcastle University</th>
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<tbody>
<tr>
<td>Course</td>
<td>Masters of Pharmacy degree (MPharm)</td>
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<tr>
<td>Event type</td>
<td>Accreditation</td>
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<tr>
<td>Step</td>
<td>4-5</td>
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<tr>
<td>Event date</td>
<td>4-5 July 2018</td>
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<td>Accreditation period</td>
<td>2018-</td>
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<tr>
<td>Outcome</td>
<td>Approval of full accreditation.</td>
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In arriving at its recommendation, the team took full cognisance of the Council’s 2011 accreditation methodology, which has been modified in order for a fully accredited MPharm in good standing to be transferred from one university to another; this methodology is set out in the ‘Procedure for transferring an MPharm degree between the universities of Durham and Newcastle’ and specifies a number of actions, one of which is that a series of accreditation visits would take place from 2017-2018 onwards to monitor the delivery of the course at Newcastle; these would mirror the usual steps 4-7 visits. In the first instance, there would be one visit in each of the 2017-18 and 2018-19 academic years and, as part of the 2018-2019 visit, an accreditation team would make a recommendation to the GPhC’s Registrar as to whether any further visits would be necessary before full accreditation could be considered. In the case of the course being delivered at Newcastle, the circumstances differ from the usual processes for the accreditation of a new provider, in that the institution would also be delivering a fully accredited course for Durham, and would therefore be operating with all four cohorts in place from 2017-2018. This should enable an earlier than usual judgement to be made on the capability of Newcastle to deliver a complete course to the GPhC’s standards. Thus, after completing the 2017-18 and 2018-19 visits, an accreditation team would make a recommendation to the Registrar about the suitability of the course for full accreditation. At this point, and if successful, the Newcastle MPharm degree would join the GPhC’s reaccreditation process as a fully accredited course. However, the procedure for this transfer was written at a time when there were no details of how successful the transfer might be; this is now known and was taken into consideration when arriving at a conclusion during this step 4-5 visit. In accord with the GPhC’s aim to deliver effective and efficient regulation (GPhC Strategic Plan 2016-2019), the evidence gathered during the visit, including the mitigation of the risks, allowed the accreditation team to agree to recommend to the Registrar that Newcastle University be permitted to progress early from the process for the accreditation of a new MPharm degree to the process for the
reaccreditation of an existing MPharm degree, and for a full period of six years, subject to an interim visit in three years’ time; this is a full year earlier than that set out in the original proposal, for reasons detailed above.

<table>
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<tr>
<th>Conditions</th>
<th>There were no conditions.</th>
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<tr>
<td>Standing conditions</td>
<td>Please refer to Appendix 1</td>
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<tr>
<td>Recommendations</td>
<td>No recommendations were made.</td>
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<tr>
<td>Registrar decision</td>
<td>Following the event, the Registrar of the GPhC accepted the accreditation team’s recommendation and approved the progression of the programme from the process for the accreditation of a new MPharm degree to the process for the reaccreditation of an existing MPharm degree early, and for a full period of six years, subject to an interim visit in three years’ time.</td>
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<tr>
<td>Key contact (provider)</td>
<td>Professor Andy Husband, Head of School.</td>
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</table>
| Accreditation team | Professor Stephen Denyer (Team Leader), Pro Vice-Chancellor (Learning and Teaching) University of Brighton  
Professor Anthony Smith (Academic), Vice-Provost Education and Student Affairs, University College London  
Dr Geoffrey Hall (Academic), Retired, formerly Associate Head,  
Leicester School of Pharmacy, De Montfort University  
Mrs Sandra Hall (Pharmacist), Head of Pharmacy Practice, Leicester School of Pharmacy, De Montfort University  
Mr Scott Downham (Pharmacist), Clinical Pharmacist  
Ms Leonie Milliner (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

Background

The MPharm programme at Newcastle University developed from a programme that was undergoing accreditation at Durham University, which following a successful step 1 event in September 2011, University appointed a Director of Education to develop the programme with a plan to admit the first cohort of students in 2013; the programme was to be delivered by the School of Medicine, Pharmacy and Health (formerly the School of Medicine and Health). The University progressed successfully through step 2 (June 2012) and step 3 (February 2013) events, without any conditions or recommendations, subsequently admitting its first students in October 2013. Successful step 4, step 5 and step 6 events took place in June 2014, January 2015 and December 2015 respectively, again without any conditions and recommendations. However, on July 13 2016, the GPhC received a letter from the vice-chancellors of Durham University and Newcastle University informing them that the respective universities’ governing councils had agreed a transfer of Durham’s School of Medicine, Pharmacy and Health, including the Division of Pharmacy and its provisionally accredited MPharm degree, to Newcastle. This transfer, which is planned for the 2017/18 academic session, was underpinned by a refocusing of Durham’s strategic plan around academic areas other than medicine and pharmacy, and Newcastle’s desire to strengthen its healthcare portfolio, which already includes courses in medicine, dentistry, biomedical sciences and psychology. A meeting took place on August 12 with pro-vice-chancellors of both universities (one of whom became Vice-Chancellor of Newcastle University in January 2017) to discuss this transfer; this constituted part of step 1 of the accreditation process for a Newcastle MPharm. During this meeting, the GPhC learned of the background underlying the proposed transfer, which was predicated on a long-standing relationship between Newcastle and Durham Universities, including a partnership whereby Durham University delivered phase I (the first two years) of the Newcastle medical degree, followed by completion at Newcastle. At that meeting, the GPhC presented a revised GPhC accreditation methodology which was developed to accommodate the transfer of an existing provisionally accredited MPharm degree to a new provider; this had been confirmed as legally valid. Accordingly, it was agreed that steps 1-3 of the accreditation process, which cover all standards, ensuring the preparedness of the institution for admission of students to an MPharm programme, would be held as a single event at Newcastle University. The justification for collapsing steps 1-3 into one is that both the curriculum and the staff delivering it were known quantities, which is not usually the case in the early stages of the new course accreditation. The areas explored during that visit primarily concerned the mechanics and oversight of transferring the course, as well as the resource base supporting delivery at Newcastle. The event therefore assessed the commitment of the universities to the transfer, what had been agreed to date and what remained outstanding in the agreement, the locus of academic and legal responsibility for the course, the resources for course delivery, and the impact that the transfer will have on the students enrolled on the Durham course in 2016-2017, as well as how any impact might be mitigated. Following the visit, the accreditation team agreed to recommend to the Registrar of the General Pharmaceutical Council that Newcastle University should be permitted to progress from step 3 to step 4 of the modified MPharm accreditation process, subject to 2 conditions; these were:
1. An early decision was required concerning leadership of this new School. While recognising that a School of Pharmacy was being created at Newcastle, the team could not see how that could proceed unless a Head of School was in place; that appointment was required be made as soon as practicable in order to meet standards 2, 7, 8 and 9. Professor Andrew Husband was subsequently appointed as Head of School.

2. Mindful that establishing the School was a high risk endeavour while acknowledging that the plans in place leading up to September 2017 seemed reasonable, the team set conditions intended to ensure that the standards are 2, 6, 7, 8 and 9 are met; these were that the University was required to develop:
   i. a complete risk analysis and contingency plan.
   ii. an approved collaborative agreement with Durham University that is contractual, as confirmed at the meeting on 12 August 2016 with the GPhC and Newcastle and Durham universities.

The risk analysis and contingency plan were duly submitted to the GPhC, and the two universities also submitted a collaborative contractual agreement.

While starting the process for accrediting a new MPharm at Newcastle University, the GPhC was in the process of concluding the stepwise accreditation process for the MPharm degree at Durham University; this was finalised in 2017 when the GPhC completed step 7 of the process, without any conditions or recommendations. Although these two processes were separate, the intended transfer of the degree from Durham to Newcastle led to inevitable overlap in some areas, in particular those concerned with the transfer of resources and support for students. Thus, delivery of the accredited Durham MPharm degree from 2017-18 until all registered students have graduated, or have ceased to be eligible to graduate, will be by arrangement with Newcastle University. This is subject to the availability of resources to deliver the curriculum in the manner described to the team. The General Pharmaceutical Council would develop a future visit schedule as part of the engagement process with the University during this period of transfer. The present event again collapses two steps (4 and 5) into a single visit.

**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 by telephone conference on 8 June 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. At the pre-visit the School was asked for additional documentation comprising an updated business plan to include recent information on student numbers, Staff-Student Committee minutes, the CVs of new members of staff, the School’s responses to external examiners’ comments, and information on placement provision across the four years.

**The event**

The event began with a private meeting of the accreditation team and GPhC representatives on 4 July 2018. The remainder of the event took place onsite at Newcastle University on 5 July 2018, and comprised a series of meetings with staff and students of the university and included a tour of the university facilities.
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 will be met. (See Appendix 2 for criteria)

The School has systems to ensure that students do not jeopardise patient safety. Students’ responsibility towards patient safety is emphasised from a very early stage of the programme. They are made aware of the GPhC *Standards for Pharmacy Professionals* and their importance and relevance throughout the MPharm programme, and are introduced to fitness to practise during the admissions process, this being reinforced throughout the delivery of the MPharm. From Stage 1, case studies are used to illustrate how and when patient safety might be compromised; these exemplify the role of the pharmacist in therapeutic decision-making and the importance of taking responsibility for decisions, as well as ensuring appropriate follow up. The MPharm, operating with cognate disciplines such as medicine and dentistry in the Faculty of Medical Sciences has fully developed, robust and comprehensive processes for fitness to practise (FtP). Students are also educated in the importance of their general conduct, including professionalism. In the context of infection control relating to patient safety, students initially complete an occupational health questionnaire which, along with a TB screening questionnaire, is forwarded to the occupational health services provider; they also complete ‘Good Conduct Declaration’ and enhanced ‘Disclosure and Barring Service’ (DBS) forms. Overseas students, who have not been resident in the UK prior to starting the programme, require a letter of good conduct from their home country, with a subsequent DBS application at the start of the next stage. In subsequent years, all students are required to complete annual declarations regarding both health and criminal convictions. As well as learning about the supply of medicines, students learn a range of clinical skills including history taking, patient counselling, physiological measurements and physical examination within the University setting. In the early stages, this uses actors and patient volunteers, progressing to involve a series of patients with complex multiple morbidities; when undertaking these activities, students are expected to complete the tasks as if in the real-world environment. This progression enables students to make errors in a low risk environment where they can reflect on, and learn from, their mistakes with support from their academic mentors; support is gradually withdrawn, although activities remain within the framework of a safe environment. Placements allow the progressive development of learning and interaction with patients, where they are exposed gradually and progressively to increasingly complex issues. Students are briefed on their placement activities at the beginning of each academic year and there are also informal debriefing sessions following placements to allow students to reflect on their learning and contextualise what has been observed within the wider curriculum. Students are appropriately supervised and monitored throughout, and any who are identified as posing a risk to patient or public safety would not be allowed to complete the MPharm programme; the programme is designed to ensure that students are safe to commence their pre-registration training upon successful completion of the MPharm.

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

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

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 School is part of the Faculty of Medical Sciences headed by a
The team was satisfied that patients and public engagement group. However, in acknowledging the importance of the patient voice, the School intends to establish a formal patient and public engagement group.

**Standard 3: Equality, diversity and fairness**

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

The University’s *Equality Strategy and Action Plan* clearly sets out its commitment to equality, diversity and fairness which is fully supported by the Faculty through the Faculty Equality, Diversity and Inclusion Committee (FEDIC); the School of Pharmacy also has an Equality and Diversity and Inclusion Committee (SPharmEDIC). The Faculty has a Director of Diversity and an Athena Swan Support Officer, who both serve as contacts for the capture and review of equality and diversity data at School and programme level for input into, and discussion at, the Board of Studies. Through these Faculty-level posts, the School also has access to similar data for the wide range of other clinical/medical programmes in the Faculty. Data on protected characteristics are considered routinely through the Board of Studies as part of the annual reporting procedures through the University’s Diversity Committee, and the data are considered across the Faculty via the School and Faculty Equality, Diversity and Inclusion committees. Newcastle University currently holds silver level Athena Swan awards for most of its academic units in recognition of the good employment practices for the advancement of gender equality, and the Faculty of Medical Sciences has submitted an application for a single silver status across all of its schools and institutes. All members of staff are required to complete training in EDI issues and are subject to periodic retraining. Year 1 students are introduced to the Equality Act 2010 and the concept of protected characteristics; there are plans to broaden understanding in the first year from 2018-19, with an introduction to public health, including consideration of its wider determinants. There are opportunities throughout the curriculum to discuss matters of diversity and bias as well as how cultural, social and genetic differences in people may influence their response to treatment, including adherence; students also discuss experiences of medicines use by patients with long-term conditions from diverse backgrounds, or with a disability. There are established processes to accommodate students who have additional needs by virtue of a long-term medical condition or protected
characteristics. The trusts used for hospital placements each have their own equality, diversity and inclusion (EDI) agendas and the School ensures that appropriate systems are in place and scrutinises the student placement feedback relating to EDI issues.

Standard 4: Selection of students

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

Anticipating the transfer of the programme from Durham, Newcastle University obtained permission from the General Pharmaceutical Council, in July/August 2016, to advertise the MPharm subject to acknowledging in the advertisement that the School is working towards accreditation; this enabled information about the MPharm programme, including entry requirements, course content and career opportunities, to be published online and this information is now also provided in a range of print materials. The information additionally describes how the Pharmacy MPharm degree was originally run by Durham University and states that the School will build on the programme’s existing reputation, academic expertise and success. Entry to the programme requires applicants to satisfy academic requirements, which include appropriate qualifications in English language and mathematics. At A-level, candidates are normally asked for AAB, with chemistry being a compulsory subject. Newcastle University has strong widening participation agenda and is particularly strong in attracting entrants from low participation neighbourhoods, black and minority ethnic backgrounds, and students declaring a disability. In this context, the University operates a ‘Partners’ Scheme’, which is run centrally and which is a key part of the University’s widening participation agenda. Applications to the MPharm via this scheme are processed centrally and employ a range of metrics to determine an applicant’s eligibility. Those who are successful are made an offer based on achieving BBB at A-level. Currently, interviews do not form part of the admissions process. As described under standard 1, students must complete an enhanced DBS clearance, with appropriate arrangements for overseas students and must undergo occupational health checks. Members of staff involved in admissions to Newcastle University’s MPharm al undertake relevant training, and liaise closely with the Central Admissions Team.

Standard 5: Curriculum delivery and student experience

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

The academic philosophy of the programme is to provide an integrated, research-led educational experience and to produce graduates who are capable of systematic enquiry and application of their knowledge and skills to complex problems. The programme and assessment strategy are designed around the principle of an ‘inter-disciplinary’ integrated curriculum, with the four-year programme comprising single, 120-credit modules in each of years 1 to 3, with two final-year 60 credit modules in year 4, one of which is the 60-credit master’s-level research project. This structure allows integration of teaching and assessment without making false divisions within the material to accommodate individual subject areas. The programme is organised around a series of practice-derived patient case studies, containing both science and practice elements, so that all aspects are contextualised in terms of the practice of pharmacy; this approach is facilitated by integration sessions that help students to expand their knowledge and apply important concepts. Across the years, ideas are presented to students and then repeated at increasing levels of complexity, resulting in a spiral curriculum. Broadly, year 1 provides the underpinning science, including studies of anatomy and physiology, and orientates students to the profession. The second year introduces pathology and therapeutics, and deals with strategies for the treatment of diseases as single entities, as well as covering pharmacy law and ethics. The third year focusses on evidence-based decision making around semi-complex cases where patients have more than one pathology, and the final year addresses applied therapeutics, including a critique of prescribing decisions and the management of complex diseases such as cancer. The programme delivered at Newcastle is essentially the same as that delivered previously, although it will continue to evolve, for example, through reconfiguring year 3 towards a ‘systems thinking approach to problem
solving’, where students will focus on co-morbidities and the associated polypharmacy. Standard teaching methods, such as lectures, laboratory practical classes, and seminars and workshops are used, along with problem-based learning, anatomy and clinical skills sessions, with online resources being under development to support blended learning; success in the last area is evidenced by the teaching of pharmacy law, which is now delivered through an entirely ‘flipped classroom’ approach, with lecture time being devoted to discussion of the issues. A significant change has been made to the teaching of dispensing. Rather than this being undertaken in the artificial environment of a dedicated simulated pharmacy within the University, students spend time working in a live hospital dispensary at the Royal Victoria Infirmary. Here, students use real prescriptions where the name of the patient has been concealed, and undertake the activity against the background of a busy dispensary where they are exposed to the working environment. Practical experience of working with patients and healthcare professions is provided in a number of ways. This includes working with volunteer patients within the University, clinical simulation using mannequins and other computerised simulations, placements in hospital, industry and community pharmacies, experience of healthcare in other areas including general practice, hospices, nursing homes and prisons, and working with other health professionals and students through inter-professional education (IPE); Newcastle University offers numerous opportunities for IPE which will involve working with students of medicine, dentistry, speech and language therapy, clinical psychology, and sports and nutrition. The School plans IPE to comprise a coherent series of sessions throughout the programme that are specifically linked to compulsory learning outcomes shared by the undergraduate courses involved. Current placement activities will be augmented by incorporating ward-based teaching in each of stages 2, 3 and 4; while years 1 and 2 will focus on the acquisition of clinical skills, year 3 students will be involved in the delivery of services such as the re-authorisation of repeat prescriptions, reviews of patient data, and clinical decision making. The assessment strategy is designed to ensure confidence that the outcomes in standard 10 are met at the appropriate levels; the strategy is also designed to reflect safe and effective practice, so that students must complete assessment tasks without making any major omissions, or demonstrating practice that causes harm to a patient, with such omissions or harmful practice leading to failure. Assessment uses a variety of approaches including multiple choice and extended matching questions, and makes extensive use of objective-structured clinical examinations (OSCEs) to determine competence. All modules have final examinations, as well as a numeracy test in each year, and a law and dispensing examination in year 2. Assessment of the final year research project includes an oral examination where students must defend their theses. Additionally, students must complete a clinical skills portfolio, demonstrating their ability to assess patients using procedural and examination techniques. Students are also required to keep a reflective portfolio throughout the programme; this has been designed to reflect the practice that will be expected as qualified pharmacists through developing the principles of CPD and lifelong learning. Students receive extensive, detailed feedback on their assessed work.

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

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

Every student has a personal tutor who provides both academic and pastoral support; the tutor system is overseen by the Senior Tutor. Students are required to meet their tutors twice in the first semester but thereafter they meet them as required. All student meetings with their tutors are recorded in the students’ e-portfolios. The School policy requires a minimum student attendance rate of 80%, and the personal tutor system allows the identification of any students who are not engaging and the provision of appropriate support. The University also provides a supportive, central ‘Student Wellbeing Service’. While the Durham college system had some advantages, there was not a clear relationship between the School and the colleges, and the boundaries between tutor and college roles were unclear, so that the School may be unaware of matters arising in the college environment; in the present system, students know where to go to obtain help. Although some of the transferring students still felt connected to their Durham colleges, and were happy in the knowledge that they would graduate through these colleges, the geographical separation, and the fact that many of their college peers had graduated, now resulted in little interaction; some students had retained college membership because of their sporting activities.
The student PharmSoc, together with some academic staff members, organises a careers day each year, with pharmacists coming in from community, hospitals, and other organisations. This careers day also includes preparation for applying for pre-registration training places through the Oriel system, for example, through a session on multiple mini-interviews (MMIs); this is facilitated by the fourth year students who had been through the process, as well as by pharmacists who had been involved as Oriel assessors.

Standard 7: Support and development for academic staff

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

The move from Durham has been challenging. However, it is beneficial to the staff, because the School is now located in a large medical faculty with superior facilities, and an excellent research environment comprising five research institutes and state-of-the-art equipment, along with numerous collaborative opportunities both across institutes and with other universities, including through EU projects; Newcastle University views the pharmaceutical sciences very positively, and also understands and appreciates the MPharm programme. All the current staff members supported the move and have integrated well into the University and into the research institutes. All members of staff, including those who had transferred from Durham University, have participated in a formal induction into Newcastle University, which was facilitated by the University’s central staff development team; the focus of the inductions was on familiarising the staff with the University systems, cultures and structures, and giving an overview of the University’s strategic objectives. Since the transfer of the School from Durham University, the Faculty has also provided a series of more tailored induction events, where new staff members have been given an ‘induction buddy’; this is an informal support mechanism provided by staff who have worked at the institution for a much longer period. Additionally, all staff members in the School have been allocated both a teaching and, where applicable, a research mentor under Newcastle’s university-wide scheme; some mentors are based in the School of Pharmacy, while others are located within other schools or research institutes in the Faculty. The University has a clear commitment to support academic staff in their careers and to develop their practice in teaching, research and management; this is facilitated through a range of nationally accredited programmes. Newcastle University also offers staff a wide suite of training opportunities within the University’s Staff Development Unit (SDU) in the form of short course covering topics such as learning, teaching and assessment, as well as in leading and managing staff. Line management for the academic programme team sits with the Head of the School, who is responsible for supervision and development of staff from both an education and research perspective. Staff development is supported through the annual performance and development review (PDR). This reflective engagement also includes an opportunity for non-pharmacist staff to help them understand how their expertise contributes to the initial education and training of pharmacists and how it can be delivered in a pharmaceutical context. Staff members engaged in the delivery of the programme can participate in a variety of learning and development opportunities, including attending conferences; there is also the opportunity to take one semester of sabbatical leave for every two years of service.

Standard 8: Management of initial education and training

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

In order to manage the delivery of the ‘Durham MPharm’ at Newcastle, the two organisations have a collaborative agreement in place. This agreement defines lines of responsibility for the delivery of the Durham MPharm by Newcastle staff, based at Newcastle, and details how the quality management of the programme is overseen by Durham, and how Newcastle reports progress via the annual monitoring process into the Durham system (see standard 2); operationally, the Durham MPharm and the Newcastle degree are considered as one programme. The MPharm programme is managed and governed through the School of Pharmacy led and overseen by the Head of School who chairs the School’s Board of Studies. The membership of the Board of Studies includes academics who teach on the programme, the Degree Programme Director, those staff members who lead on admissions and
pastoral care, the School Manager, and the Senior Technician, as well as student representatives for each stage of the programme; the Board of Studies also includes the Chief Pharmacists from the Newcastle Hospitals Trust and the Northumberland, Tyne and Wear NHS Trust to provide an employer perspective. Day-to-day responsibility for the programme falls to the Degree Programme Director (DPD) who, in turn, reports to the Head of School. The DPD works alongside each of the year leaders, who are also members of the Board of Studies, and who are responsible for each of the year-long modules, with the final year leader overseeing both the taught element and the research project. The programme is also supported by a Senior Tutor who oversees personal tutoring and pastoral support within the School. Senior tutors form part of a University wide network and are themselves supported by regular meetings led by the University’s Learning and Teaching Development Service.

**Standard 9: Resources and capacity**

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

As was the case at Durham University, the MPharm at Newcastle operates within the structure of an agreed business plan, the finances being overseen by the Head of School reporting to the Faculty Pro-Vice-Chancellor, who provides necessary assurances to the University’s Executive Board. There are robust and transparent mechanisms to ensure the sustainable resourcing of the MPharm programme, with the current business plan aligning with the later stages of the Durham University business plan; Newcastle University has committed to maintaining the student/staff ratio (SSR) for the MPharm programme at no greater than 16:1, as was the case at Durham, and, accordingly, made a large number of appointments to address the loss of academic, technical and administrative staff incurred by the transfer from Durham. The annual budget-setting process commences in December of each year for the following August, and budgets are monitored quarterly. The planning round is informed by school plans developed in discussion with the Faculty’s Undergraduate Dean; the plans are considered by the Faculty, and an overall Faculty plan is submitted to secure resource allocation at University level. In budgeting, schools are not over-committed to targets, and resources are allocated to deal with the numbers of students admitted. The 2017/18 intake, which was the transition year between the two universities, comprised 74 home/EU along with two overseas students; the home/EU intake numbers are planned to rise to 90, 95, and 114 for academic years 2018/19, 2019/20 and 2020/21, plateauing thereafter at 142 per year, along with small numbers of overseas students. Budgetary surpluses remain within the Faculty along with indirect research costs, and can be accessed where needed and justified, with cases being presented to the Pro-Vice-Chancellor. Any budgetary deficits within one school are mitigated by surpluses elsewhere across the Faculty. The Faculty is charged centrally for the costs of running all central services such as the library. Staffing costs are covered and the School is assigned a running cost budget that can be used flexibly; cases for new staff appointments are considered by the Faculty. Newcastle University is very well positioned in terms of its cash reserves and budgets are modelled to accommodate pay increases and other anticipated expenditure. The Faculty remains committed to helping its schools to the best of its ability and is looking to develop through innovative approaches, cross-faculty working and links with the NHS. Equipment and estate costs were initially covered by the funds ring fenced by the University to support the transfer from Durham; in the long-term, these will be subject to the planning rounds and the School will need to make cases to secure funds for equipment. There is also a specific fund at University level to support bids for larger scale equipment. Resources for teaching and research are excellent and the School is housed in fully-refurbished teaching, research and office accommodation, while having access to high quality spaces within the Faculty of Medical Sciences for teaching practical aspects of chemistry, pharmacology, physiology, anatomy and clinical skills.

**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 by discussions with the teaching staff. Four outcomes were
selected for detailed discussion, these being 10.1.e, 10.2.2.a, 10.2.2.e, and 10.2.3.k. During the discussions, 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'). The discussions of the four outcomes, as well as scrutiny of the documentation relating to these and to the other outcomes, gave the team confidence 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:
   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 and trainees**

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

4.1 Selection process must give applicants the information they need to make an informed application.
4.2 Selection criteria must be explicit. They should include:
   4.2.a meeting academic and professional entry requirements;
   4.2.b meeting English language requirements appropriate to MPharm degree study. Guidelines issued by English language testing bodies should be followed to ensure that admissions language requirements are appropriate;
   4.2.c meeting numeracy requirements;
   4.2.d taking account of good character checks, such as Criminal Records Bureau
(CRB)/Disclosure Scotland checks;

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

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

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

Standard 5: Curriculum delivery and the student experience

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

5.1 Curricula must be integrated.

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

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

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

5.5 An MPharm degree teaching and learning strategy must set out how students will achieve the outcomes in Standard 10. Learning opportunities must be structured to provide:

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

5.5.b a balance of theory and practice;

5.5.c independent learning skills.

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

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

5.8 The MPharm degree assessment strategy should include:

5.8.a diagnostic assessments;

5.8.b formative assessments;

5.8.c summative assessments;

5.8.d timely feedback.

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

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

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

Standard 6: Support and development for students and trainees

6. Students must be supported to develop as learners and professionals during their initial education and training.
6.1 A range of mechanisms must be in place to support students to develop as learners and professionals.

**Standard 7: Support and development for academic staff**

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

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

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

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

**Standard 8: Management of initial education and training**

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

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

**Standard 9: Resources and capacity**

9. Resources and capacity are sufficient to deliver outcomes.

9.1 There must be:
   - 9.1.a robust and transparent mechanisms for securing an appropriate level of resource for delivering an accreditable MPharm degree;
   - 9.1.b sufficient staff from relevant disciplines to deliver the curriculum to students 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. Not all personal tutors must be pharmacists.
      - 9.1.b.iii pharmacists who are leaders in the profession and in their university, who can influence university policy relevant to pharmacy
      - 9.1.b.iv non-pharmacist academics who can influence school and university policy relevant to pharmacy
      - 9.1.b.v staff who are sufficiently experienced to supervise research. It would be unusual for anyone to supervise research at a particular level unless they had researched to that level or beyond. New research supervisors must
be mentored and signed off as being fit to supervise after a period of mentoring

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

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

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

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

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

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

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

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

9.1.g appropriate learning resources

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

**Standard 10: Outcomes**

**10.1 Expectations of a pharmacy professional**

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

**10.2 The skills required in practice**

**10.2.1 Implementing health policy**

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

Knows how

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

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

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

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

### 10.2.4 Working with patients and the public

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

### 10.2.5 Maintaining and improving professional performance

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

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Appendix 3 – Indicative syllabus

General Pharmaceutical Council, MPharm step 4-7 accreditation report
Newcastle University, 4-5 July 2018
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)