

**University of Sunderland Master of Pharmacy
(MPharm) degree interim event report, June 2021**



Contents

Event summary and conclusions	1
Introduction	2
Role of the GPhC.....	2
Background.....	3
Documentation.....	3
Pre-event.....	3
The event.....	3
Declarations of interest	3
Schedule	4
Attendees	4
Key findings	5
Standard 1: Patient and public safety	5
Standard 2: Monitoring, review and evaluation of initial education and training.....	6
Standard 3: Equality, diversity and fairness	8
Standard 4: Selection of students	9
Standard 5: Curriculum delivery and student experience	9
Standard 6: Support and development for students	14
Standard 7: Support and development for academic staff	17
Standard 8: Management of initial education and training	18
Standard 9: Resources and capacity.....	19
Significant pedagogic developments.....	20

Event summary and conclusions

Provider	University of Sunderland
Course	Master of Pharmacy (MPharm) degree
Event type	Interim
Event date	17-18 June 2021
Current accreditation period	2020/21 - 2022/23
Relevant standards	Future pharmacists Standards for the initial education and training of pharmacists, May 2011
Outcome	<p>Continued accreditation confirmed.</p> <p>The period of extension follows the GPhC's policy for MPharm degrees being reviewed this academic year that continue to meet the 2011 standards.</p> <p>The team noted the appropriate adaptations that had been made to manage course delivery during the pandemic, and that both staff and students appeared to be well supported during this time.</p>
Conditions	There were no conditions.
Standing conditions	The standing conditions of accreditation can be found here .
Recommendations	No recommendations were made.
Registrar decision	Following the event, the Registrar of the GPhC accepted the accreditation team's recommendation and approved the continued accreditation of the programme until 2022/23.
Key contact (provider)	Dr Andrew Sturrock, MPharm Programme Leader.
Accreditation team	<p>Leonie Milliner (Team Leader), Director of Education, General Optical Council</p> <p>Professor Barrie Kellam (Team member-academic) Professor of Medicinal Chemistry, University of Nottingham</p>

	Dr Gemma Quinn (Team member-academic), Associate Professor of Clinical Pharmacy, University of Bradford Dr Hayley Wickens (Team member-pharmacist) Lead Pharmacy Training Programme Director (South), Health Education England Bethan Sheppard (Team member-pharmacist recently registered) Specialist Rotational Pharmacist, University Hospital of North Midlands Catherine Boyd (Team member-lay) Chair of Fitness to Practise Panels HCPTS
GPhC representative	Philippa McSimpson, Quality Assurance Manager, GPhC
Rapporteur	Professor Brian Furman (rapporteur) 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 registered pharmacies and is the accrediting body for pharmacy education in Great Britain (GB). The GPhC is responsible for setting standards and approving education and training courses which form part of the pathway towards registration for pharmacists. The GB qualification required as part of the pathway to registration as a pharmacist is a GPhC-accredited Master of Pharmacy degree course (MPharm).

This interim 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* (<http://www.legislation.gov.uk/uksi/2010/231/contents/made>). 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.

Background

The MPharm at the University of Sunderland is delivered by the School of Pharmacy and Pharmaceutical Sciences within the Faculty of Health Sciences and Wellbeing, which also includes the School of Nursing and Health Sciences, the School of Psychology and School of Medicine. The programme was last reaccredited in 2018, when the team recommended accreditation for a full period of six years with an interim visit at three years; on that occasion there were no conditions and no recommendations were made. Thus an interim event was scheduled for 17-18 June 2021 and was conducted by videoconference; the following is a report of that event.

Documentation

Prior to the event, the provider submitted documentation to the GPhC in line with the agreed timescales.

The documentation was reviewed by the accreditation team and it was deemed to be satisfactory to provide a basis for discussion.

Pre-event

In advance of the main event, a pre-event meeting took place via videoconference on 24 May 2021. The purpose of the pre-event 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 event.

The event

Due to the Covid-19 pandemic, the GPhC modified the structure of the event so that it could be held remotely. The event was held via videoconference between the University of Sunderland and the GPhC accreditation team on 17-18 June 2021 and comprised meetings between the GPhC accreditation team, and representatives of the MPharm programme; the team also met a group of undergraduate students.

Declarations of interest

Hayley Wicken's declared that a lecturer within the University of Sunderland School of pharmacy also holds a part time role at the HEE where she works, but for a different region. Gemma Quinn declared that the University of Bradford is part of a consortium that has recently won a contract with HEE and that a lecturer from the University of Sunderland is involved in this in their HEE role. The team agreed that neither of these constituted any conflict of interest.

Schedule

Day 0 – 16 June 2021

Meeting number	Meeting	Time
1.	Private meeting of team and GPhC representative (MPharm)	13:15 – 15:00
	Break	
2.	Private meeting of team and GPhC representative (OSPAP)	15:15 – 17:00

Day 1 – 17 June 2021

3.	Private meeting of team and GPhC representative	09:00 – 09:30
4.	Progress meeting (presentation)	09:30 – 10:30
5.	Private meeting of team and GPhC representative	10:30 – 11:00
6.	Progress meeting (continued)	11:00 – 13:00
	Lunch	
7.	Meeting with students (MPharm)	14:00 – 15:00
8.	Meeting with students (OSPAP)	15:00 – 15:45
9.	Private meeting of team and GPhC representative	15:45 – 16:30

Day 2 – 18 June 2021

10.	Private meeting of team and GPhC representative	09:00 – 09:30
11.	Admission, progression, monitoring and support meeting	09:30 – 11:30
	Break	
12.	Significant pedagogical developments presentations	11:45 – 13:00
	Lunch	
13.	Private meeting of team and GPhC representative	14:00 – 15:30
14.	Deliver outcome to programme provider	15:30 – 15:45

Attendees

Course provider

The team met with the following representatives of the University:

Name	Designation at the time of accreditation event	Meetings attended
Alabaster, Prof Tony	Academic Dean, Faculty of Health Sciences and Wellbeing	4, 6, 12
Boachie-Ansah, Dr Gabriel	Senior Lecturer in Pharmacology	4, 6, 11, 14
Bullen, Kathryn	Senior Lecturer, Pharmacy Practice	4, 6, 11, 12, 14
Carter, Dr Paul	Senior Lecturer, Pharmaceutics	4, 11, 14
Childs, Dr Stephen	Senior Lecturer, Pharmaceutical Chemistry	11, 14
Darby, Dr Steve	Team Leader, Pharmaceutical Sciences	4, 6, 11, 12, 14
Davison, Kathryn	Team Leader, Pharmacy Practice and Clinical Therapeutics	4, 6, 11, 12, 14

Donavan, Gemma	Senior Lecturer, Pharmacy Practice	4, 6, 12, 14
Earl Sinha, Charlotte	Senior Lecturer, Pharmacy Practice	4, 11, 12, 14
Elkordy, Prof Amal	Professor, Pharmaceutics	11, 14
Goring, Rob	Senior Lecturer, Clinical Skills	4, 6, 11, 12, 14
Gray, Dr Mark	Senior Lecturer, Chemistry	11, 14
Hardisty, Dr Jess	Principal Lecturer, IPE lead	4, 6, 11, 12, 14
Marshall, Deanne	OSPAP Programme Leader	4, 6, 11, 12, 14
Moore, Dr Adrian	Head of School of Pharmacy and Pharmaceutical Sciences	4, 6, 11, 12, 14
Myers, Dr Stephanie	Senior Lecturer, Medicinal Chemistry	11, 14
Robertshaw, Carlie	Senior Lecturer, Pharmacy Practice	4, 6, 11, 12, 14
Sherwood, John	Senior Lecturer, Pharmacy Practice	4, 6, 11, 12, 14
Statham, Louise	Senior Lecturer, Pharmacy Practice	4, 6, 11, 14
Sturrock, Dr Andrew	MPharm Programme Leader	4, 6, 11, 12, 14
Tierney, Callum	Senior Lecturer, Pharmacy Practice	11, 12, 14
Williams, Paul	Senior Lecturer, Clinical Skills	4, 6, 11, 12, 14

The team also met two MPharm graduates from 2020, along with a group of 12 students comprising three from year 1, three from year 2, four from year 3, and two from year 4.

Key findings

Standard 1: Patient and public safety

Standard continues to be met? Yes No (accreditation team use only)

While this standard was not specifically discussed during the interim event, the documentation described how the School has systems in place to ensure that students do not jeopardise the safety of patients and the public. These include fitness to practise, fitness to study (see narrative under standard 6) and student disciplinary procedures, which are reviewed annually. Where students undertake activities that involve contact with patients and members of the 'Patient, Carer and Public Involvement' (PCPI) group (see standard 5), it is ensured that the health, safety and welfare of these groups are actively promoted. During their induction, students are introduced to fitness to practise and the GPhC's '*Standards for Pharmacy Professionals*', as well as to equality, diversity and inclusion (EDI). The role of patients in pharmacy education and training is discussed, along with students' expected behaviours during their patient contact experiences. In order to comply with infection control procedures, a new dress policy for all placements and for clinical skills and patient contact sessions was introduced in 2018/19; this was reviewed in light of the pandemic, so that students are required to wear 'scrubs' in patient-facing environments. A formal feedback mechanism allows placement providers to alert the School of any issues arising during students' off-site learning activities. There is an increased focus throughout the course on legal and ethical teaching and learning; this highlights the professional responsibilities of pharmacy professionals and the maintenance of patient safety. Numeracy skills are emphasised throughout the MPharm programme, with regular numeracy assessments, and objective, structured, clinical examinations (OSCEs) contain key pass/fail criteria that relate to patient safety.

Please see the narrative under standard 6, where aspects of student support were addressed.

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

Standard continues to be met? Yes No (accreditation team use only)

The presentation (meeting 4) showed that Sunderland graduates have a consistently high success (90-95% pass rate) in the General Pharmaceutical Council registration assessment, this being above the national average. The School receives positive feedback from external stakeholders on the quality of recent graduates, and HESA data demonstrate 98% graduate level employment within six months of graduation. Student retention and completion rates are very good; multiple factors, including personal circumstances, finance and visa requirements influence the incidence of interim awards, which is variable. Progression is good overall, although it was highlighted in 2018 that success rates in assessments at the first attempt could be improved, particularly at Stages 2 and 3, this having been identified by external examiners. In response to the team's wish to learn of recent examples of issues or suggested improvements relating to the MPharm raised through student feedback mechanisms, and the actions that were taken, the School's representatives (meeting 6) explained that at the end of lectures students are invited to raise any issues. One concern was the volume of online material that they had to manage on the VLE; while the University had encouraged the use of short video-recordings, the students preferred longer recordings and the VLE has been redesigned for the next academic year. Before the pandemic, the School had received positive feedback on its simulation-based teaching that allowed the application of knowledge; this had resulted in an expansion of the use of simulations, especially at Stage 3, for example the ward simulation. Another student concern had been the move to the use of online OSCEs as a consequence of the pandemic; the students wanted preparation for these. Accordingly, full, mock online OSCEs were run for Stage 4 students, while students at lower stages were told what would be covered in the OSCE and were prepared. Some students had also expressed concerns about the use of proctoring software for monitoring online examinations; the concerns included data protection issues, such as storage of the video-recordings generated by the software, these recordings showing the students' home environments. Mock assessments were made available, so that students became comfortable with the proctoring software. However, a minority of students were uncomfortable undertaking online assessments in their own accommodation and were therefore offered the opportunity to attend campus for this purpose. The students (meeting 7) told the team that they had the opportunity to provide feedback on the programme through course representatives, of which there were four or five for each stage. The staff asks for honest feedback, offering a neutral platform for its receipt and being very fair in addressing it, explaining where some things are possible to enact, and some are not. Students have provided feedback, for example, on the use of time-constrained tests, and about issues with the Canvas VLE; they were aware that any changes arising from their feedback may be implemented only in time for the following year.

The presentation (meeting 4) and the documentation showed that while NSS data revealed a high overall satisfaction (now 80-90%) rating, scores for assessment and feedback identified low satisfaction (around 50%). Wishing to understand the issues and the strategies in place to address them, the team was told (meeting 6) this is the same across many universities. The School gathers students' views about feedback and assessment to determine what is not

working; this includes feedback from the staff-student liaison committee (SSLC). Students often do not like the marks awarded, while staff members do not want to see grade inflation. The School recognises the need for students to understand the purpose and nature of assessment and that they must know when and how to obtain feedback. Training is provided for staff in collaboration with the Centre for Learning and Teaching Enhancement (CELTE) to increase the consistency in feedback. There is a large focus on global, as well as individual, feedback; students receive feedback from multiple sources, including their personal tutors. In light of the changes made, the School expects to see improvements in the NSS scores next year. In meeting 7, the students told the team that in response to student requests, feedback had increased across the years. Sometimes, the justification of the marking was unclear, with both marking and feedback differing among markers, and the amount of feedback being variable depending on the type of assessment; for example, feedback was clear and extensive on projects. For more general coursework, all students now receive three pieces of positive feedback and three pieces of constructive feedback, the latter emphasising how to improve.

The presentation (meeting 4) described how the School has learned a number of things from the pandemic that will be taken forward for the future. These included the significant benefits of having a high quality VLE to support traditional learning, with the delivery of theoretical knowledge using 'instructional design' principles, and the value of continuing the use of lecture capture along with supportive/directed material. The use of online teaching has emphasised the importance of embracing digital skills as a key element of healthcare provision. However, there remains the fundamental need for high-quality face-to-face teaching to develop skills, to teach the application of knowledge, and to create a sense of community; regular face-to-face contact provides students with academic and pastoral support. Exploring this further and wishing to know how the pandemic-related changes had been evaluated and by whom, the team was told (meeting 6) that evaluation was undertaken by the Programme Studies Board, course leaders and informal staff meetings, as well as using feedback from students received via module feedback and through the SSLC, which meets three times per year. The team was told that information obtained by speaking to students was more useful than that derived from module feedback on Canvas. Feedback was also obtained from external examiners and data were evaluated by the end of year Assessment Board, where many students have been deferred to the July assessment opportunity, rather than being referred. Although online teaching and assessment had worked well, as described in the presentation, face-to-face activities will be brought back, while maintaining the high quality VLE along with digital communication with students and retaining some online activity, as this forms part of the new model for healthcare; while online lectures will be retained, some will take place face-to-face as requested by students in their feedback. The teaching of clinical skills using a hands-on approach will be developed, bearing in mind the new GPhC standards; hands-on activities will be supplemented by the use of video-recordings and recorded sessions dealing with clinical skills protocols and procedures, as these were found to be useful teaching aids. Virtual lectures supported by interactive activities and group discussions will continue, along with maintaining the weekly pre-brief, as this was found to be a good way of keeping in touch. The School representatives explained that where students are brought into the University for face-to-face activities, online teaching and learning cannot take place on the same day; online teaching and learning must be either on a different day or be pre-recorded. One protected day per week with no contact was especially important during the pandemic, particularly for students who work or who have childcare commitments.

For assessments, the School will retain online MCQ examinations but OSCEs will revert to being face-to-face.

Standard 3: Equality, diversity and fairness

Standard continues to be met? Yes No (accreditation team use only)

The team noted from the data that there appeared to be lower progression rates and lower attainment for MPharm students of certain ethnicities and those with disabilities. Wishing to learn of the strategies to address these differences, the team was told (meeting 11) that all students must meet the standards to progress and to graduate. Differential attainment across ethnic groups is well known in education, including in the GPhC registration assessment, and several factors are involved in addition to ethnicity, including experience of and involvement in the care system. To ensure equality, the Faculty equality and diversity committee is identifying areas that influence progression and attainment. In considering the factors, the committee is exploring the student experience, looking at how included they feel and the issues affecting them; the student population itself shows great diversity. In-depth focus groups, also involving nursing and medicine, look at aspects such as experiences of medicine use and teaching materials, including the clinical images employed in teaching, as well as the composition of the PCPI group, which comprises more than 200 patients showing great diversity including mental health and disabilities. There is a range of critical assessments, for example, OSCEs and numeracy, across the programme, with students generally performing well. The School provides extensive support to prepare students for assessments, for example through the use of mock OSCEs and numeracy tests, with personal tutors playing an important role. The team was told that while there did not appear to be a relationship between ethnicity and progression, it remained unclear why there was an attainment gap, and the extent of the contribution of cultural and home-life factors was uncertain. The team agreed that these differentials in progression and attainment rates for MPharm students of certain ethnicities and those with disabilities, as well as disparities associated with gender should be re-examined at the next reaccreditation.

The team had also noted that the data showed a gender disparity, with females outperforming males in the final MPharm degree mark. The School's representatives (meeting 11) described how, while the differential was clearly present, focus groups had not really identified gender as a strong theme, although gender identity and LGBTQI issues did come through strongly. Thus the reason for the gender disparity in performance had not been identified and was the subject of ongoing work.

The documentation described the establishment of an MPharm EDI group in 2020. The team wished to learn about its composition, and how its work feeds into other reporting and governance structures, as well as how the group influences the OSPAP programme. The team was told (meeting 11) that while the Faculty EDI committee, covering pharmacy, medicine, nursing, feeds up to the University EDI Committee, which in turn reports to the University Executive, a specific focus was needed for the MPharm student voice. The work of this group is also presented to the PCPI group. The documentation described how the group had hosted a student EDI workshop in March 2021, which had identified and prioritised actions to improve

inclusivity on the programme. In response to the team's wish to know what progress had been made on these actions, the School's representatives (meeting 11) explained that the workshop had captured a range of issues to address what a more inclusive MPharm would look like. Accordingly, the School has established a process to action the points; this will be addressed in changing teaching materials for the next academic year.

Standard 4: Selection of students

Standard continues to be met? Yes No (accreditation team use only)

The documentation described the introduction of a new, interactive selection processes for the MPharm for the current academic year. Wishing to know of the steps taken to ensure the fairness and consistency of the process, the team was told (meeting 11) that the process was piloted in 2018 and introduced for all home students; thus the current stage 3 students will have experienced it. Following a talk about the MPharm programme and a tour of the facilities, applicants are split into group of six for a cyclical process that includes numeracy testing, multiple mini-interviews (MMIs) and situational judgement tests (SJTs). Informal conversations take place between staff and students in groups, with the students being observed; three MMI scenarios are presented. The interviewers include members of the PCPI group and academic staff, the latter comprising both science and practice staff. The MMI scenarios cover different SJTs in which the students are judged on their personal and professional values and their ability to empathise, as well as on their interest in pharmacy; the team was told that mature students do very well in scenario-based interviews. While it is impossible to replicate it exactly for students based overseas, the process is similar and includes both numeracy and situational judgement tests, although conducted over Skype by one member of staff. IT issues sometimes impact on the process. As a result of the pandemic, interviews for the 2020/21 applicants were moved online using MS Teams, consistency being achieved through the use of a focussed team comprising seven members of staff who know the process and who have undertaken many online interviews. The interviews were allocated 30-minute slots and covered both numeracy tests and SJTs in that time period. Wishing to know how the new, centralised 'interview and selection centre' will impact upon admissions processes for the MPharm and the OSPAP, the team was told (meeting 11) that this had arisen because of the demand on rooms, including the OSCE suite, for the interviews. The new bespoke facility, comprising rooms for interviews and presentations will provide a centralised interview and selection centre for the whole University on the city campus, which will now exclusively house the Faculty of Health Sciences and Wellbeing. The facility will take the pressure off teaching rooms, and will allow all home applicants to be brought to a single environment on the campus. The team was told that interviews will be conducted face-to-face on campus rather than virtually, as soon as it is possible.

Standard 5: Curriculum delivery and student experience

Standard continues to be met? Yes No (accreditation team use only)

The presentation (meeting 4) described how the MPharm learning outcomes across the programme were developed to meet standard 10 and the indicative syllabus set out by the General Pharmaceutical Council. 23 strands, covering all aspects of the standard 10 outcomes,

were developed to ensure the delivery of an integrated, spiral and progressive curriculum; these strands cover the core sciences (anatomy, physiology, pharmacology, pharmaceutical chemistry, pharmaceutical technology, pharmacokinetics, biochemistry, and microbiology) and aspects such as improving health outcomes, communicating with and caring for patients, the sale and supply of medication, safeguarding patient safety, pharmaceutical calculations, and prescribing skills. The programme is structured as three modules at each of Stages 1 to 3, with two modules at Stage 4. Stage 1 covers fundamental principles of pharmaceutical chemistry and formulation, anatomy, physiology, pharmacology, and microbiology, as well as an introduction to the professional practice of pharmacy. Stage 2 includes the legal and ethical basis of practice and integrated therapeutics covering cardiovascular, renal, respiratory and gastrointestinal systems. Integrated therapeutics continues at Stage 3 in dealing with endocrine, genitourinary, musculoskeletal, central nervous systems and the skin; the year-long research project also takes place at this stage. The two final year modules deal with advanced therapeutics and advanced practice. Programme delivery uses a blend of methods including team-based and problem-based learning (TBL and PBL), lectures, seminars and directed study. Each of the standard 10 outcomes has been aligned to a specific learning objective and therefore an assessment at the appropriate level of Miller's triangle, with a reduced assessment burden and an appropriate blend of assessment styles so that students are well prepared for entering and succeeding in pre-registration/foundation training. The 'knows' level is assessed using, for example, MCQ tests and laboratory reports, while the 'knows how' level is assessed using integrated written examinations, case-based MCQs, numeracy, laboratory, oral defence, dissertation, written reports, research project, poster, problem-based learning, and the reflective portfolio. OSCEs, numeracy tests, the research project, the simulated pharmacy examination, problem-based learning, and the reflective portfolio are used to determine the 'shows how' level, with the 'does' level being demonstrated through, for example, actions and activities during experiential learning, observing health and safety requirements, numeracy assessments and the students' reflective portfolios.

The presentation (meeting 4) described how teaching, learning and assessment had been adapted to address the constraints imposed by the COVID-19 pandemic. For 2019/20 most of the teaching had already been completed face-to-face, with the remaining content, comprising mainly revision material, being delivered online. The modular structure meant that first-term assessments were unaffected. Written and numeracy assessments remained as planned for all stages. There was no access to proctoring software at that time, so integrity of online assessments was addressed by the use of time-constrained tests, randomisation of responses, and not allowing students to return to answered questions. Stage 4 was prioritised to ensure standards relating to patient safety were met and balanced with the needs of the workforce pipeline; Stage 4 OSCEs were conducted online using MS Teams. For the academic year 2020/21 the delivery of the programme comprised a hybrid approach using a blend of synchronous and asynchronous online delivery, guided online activities and small-group, face-to-face teaching. MS Teams was used for all 'live' lectures, with reVIEW lecture capture. Face-to-face teaching, prioritising skill-based sessions, including simulation, case/practice based material, and clinical skills, was delivered using social distancing and appropriate precautions, including the use of PPE. Social bubbles were created in collaboration with the Sunderland Pharmaceutical Students' Association (SPSA) and this was very well received by the students. Students were on campus for a maximum of two days each week and online alternatives were made available for students

unable to attend, for example, as a result of a positive test, self-isolation, or quarantine. For term 2 of 2020/21, the decision was made to revert fully to online delivery. Optional face-to-face sessions for Stage 4 clinical skills and practice were offered once restrictions eased at the end of the term. The students (meeting 7) confirmed the move to online teaching with material, including lectures, being recorded by all members of staff; they described how two days per week were spent on the campus for learning activities concerned with clinical skills. The team was also told by the students (meeting 7) how the Stage 3 research projects had been managed through online meetings with their tutors. Project work had been restricted, so that laboratory-based projects had been replaced by systematic reviews, although interview-based projects had gone ahead, with staff adapting as far as possible. The students described how the assessment of the project now included an 'engagement score' (see 'Pedagogical Developments', example 5). The team was told (meeting 4) that placements for Stage 1 students took place as scheduled in November 2020, while Stage 2 and Stage 3 placements scheduled for 2021 were cancelled. Assessments for term 1 were held online using proctoring software (Honorlock) and Stage 2 OSCEs were held face-to-face in December. In the second term, assessment comprised online examinations using a combination of proctoring software with open book application exercises; OSCEs at each stage were conducted online. The use of online OSCEs was confirmed by the students (meeting 7), who told the team that they had been given opportunities to practise for these assessments; the students acknowledged the value and importance of OSCEs. The students told the team how the use of technology had been very helpful and was of benefit because of the future increased reliance on online consultations.

As stated in the presentation (meeting 4), experiential learning in the MPharm comprises a blend of inter-professional education, workplace placements, and interaction with the PCPI group, with all aspects being linked to module learning outcomes and assessment, as well as being integrated with the clinical content of the programme. Much of this experiential learning is based on simulation ranging from low-fidelity simulation such as clinical case scenarios, through immersive simulation (simulated ward and home environments) to high-fidelity simulation based on SimMan and point-of-care testing. Students receive feedback on their engagement and performance during each activity and reflect on this in their portfolio submissions. Throughout the programme, students receive feedback from multiple sources, comprising that from peers, academic staff, other healthcare professionals, patients and placement providers. The emphasis throughout is on engagement in multidisciplinary working, contributing to the learning and development of team members, collaboration with patients, the public and other healthcare professionals, and reviewing and reflecting on evidence to monitor performance and revise professional development plans. In meeting 7, the students described how the programme included extensive learning of clinical skills, which included how to approach patients and how to adapt their communication according to the individual patient. The students told the team of their interaction in all years with members of the PCPI group, where they encountered patients with different health problems, including mental health, diabetes and Parkinson's disease; these interactions enabled them to ask patients about their experiences, including their conditions and medications, adverse drug reactions and monitoring. The students described how their inter-professional education (IPE) activities, comprising at least two per year, provided the opportunity to work with other healthcare students, including students of nursing, medicine and physiotherapy; this familiarised them with multidisciplinary team working, including how to communicate with other professions, as well as filling knowledge gaps. While enjoying IPE, the students described how the student groups sometimes

showed imbalance, with one profession being dominant, although they acknowledged that the balance was determined by the relative size of the different student cohorts. During 2020/21, the team was told (meeting 4) that IPE had continued online using Microsoft Teams for all stages of the programme, with all patient-student interactions and consultations being virtual; patients were supported with equipment, and internet connections, and were supported by the staff to join the sessions. The sessions were introduced by a multidisciplinary team of academic staff, followed by students entering virtual breakout rooms in their multi-disciplinary groups. The activities at Stage 1 comprised 'discharging patients from hospital', which also involved OSPAP students, along with students of medicine and nursing. The Stage 2 activity, conducted with medical students focused on effective communication in multi-professional teams. At Stage 3, MPharm students worked with psychology students on an alcohol simulation, and also with OSPAP students and students of psychology and nursing in a session dealing with chronic illness and mental health. The stage 4 activity, in which students worked with OSPAP students and students of social work, physiotherapy, occupational therapy, nursing, medicine, and paramedic science focused on a 'falls' simulation (See example 7 under 'Pedagogical developments'). Feedback to student groups was provided by the patients on their engagement, communication and teamwork. In general, there was good student engagement with the activities, although there were some issues in ensuring inter-professional collaboration online. Students wished to prioritise these sessions as face-to-face events whenever possible.

The documentation stated that the MPharm programme structure was revised substantially as a result of student feedback before the 2018 visit. Wishing to be updated on how this had gone, the team was told (meeting 11) that the School had received positive feedback from placement providers. Moreover, anecdotally, stage 3 students, who are the first to go through the new programme, appear to show increased ability and engagement. It is too early to make a judgement on the impact of the changes on other years; it is hoped they will show improved engagement and performance, although no data are yet available. However, numeracy seems to be much better, with numeracy now being addressed at each stage. The introduction of dispensing classes at Stage 1 appears to result in Stage 2 students being able to work much faster and needing less explanation. The underlying assessments have been maintained. It is hard to know the impact of the structural changes made compared with that of the pandemic.

The team wished to understand how students have been provided with suitable learning opportunities during the pandemic to enable them to demonstrate learning outcomes that are normally linked to placement activities. The team was told (meeting 11) that GPhC guidance had been used as a basis, with the aim that placements would go ahead, and these took place at Stage 1, although some were deferred as a result of risk assessments or due to students being overseas. However, as described in the presentation, Stage 2 and 3 hospital and community placements were cancelled after Christmas. Students received staff support to find voluntary placements in hospital and community, as well as in some GP practices in liaison with stakeholders; small pharmacies were unable to take students, while some students were involved in the vaccination programme, as confirmed in meeting 7, where the students also confirmed that the School had helped them to find the voluntary placements described above, these being self-organised with the help of the Placement Coordinator. At the end of the year, a large, two-day career conference was held jointly with Newcastle University; this included talks from hospital practitioners. Patient contact continued at all stages of the programme via

Microsoft Teams with virtual placements, as well as clinical skills sessions, IPE, counselling, history taking, patient stories and a mock ward simulation, which simulates the working environment; the content of the sessions was aligned to the placements, and teacher practitioners were involved, with students given the best possible opportunities. Members of the PCPI group could not be brought onto the campus because of the risks but Microsoft Teams still offered good face-to-face online patient contact. While accepting that PCPI activities needed to be online this year, the students (meeting 7) told the team of the importance of face-to-face patient contact. Final year students described how IPE activities, for example with nursing students, had compensated for the lack of placements; the IPE activities had provided material for the students' reflective portfolios. The staff (meeting 11) stated that the transition of clinical skills teaching from face-to-face to online delivery had been managed successfully. Planning is underway for the next academic year, where it is fully expected that all placements will take place, including provision for those at stage 4 who previously did not have placements. Noting that the sustainability of placements is currently rated 'amber' on the risk register, and wishing to learn about how this was being addressed in terms of availability and cost, the team was told (meeting 11) that the School has a large network of providers, and that there are service level agreements with large NHS trusts, as well as with community pharmacy; Primary Care Networks also want students. Placements are rated 'amber' as a risk, because they cannot be run if providers withdraw; however, the School remains confident that sufficient placements of the appropriate variety will remain available, although the funding model to address the GPhC's new standards is still uncertain, and funding will ultimately determine what can be provided. Finding GP placements remains a struggle and the School is working to increase these for both MPharm and OSPAP students; talks are in progress to increase the number of providers. The School is also considering the development of placements in other healthcare environments. The School representatives told the team that the plan for virtual placements has not been implemented; this planning was undertaken in case the pandemic interferes with face-to-face activities.

In response to the team's wish to hear of examples where the Honorlock proctoring software identified inappropriate activity during online assessments, the School's representatives (meeting 11) explained that this software was used for all online, closed-book assessments. The students were happy with its use and regarded it as a good deterrent, with everything being recorded (as confirmed in meeting 7, see below). No major problems had been detected, although the system flagged potential issues that turned out to be unimportant when reviewed later on Canvas; for example, a student was tagged as a risk because of mumbling to themselves, but it was established that they were not receiving assistance. Another problem arose from students not having their ID cards, but these were substituted by passports or driving licences. No formal misconduct proceedings were undertaken as a result of issues identified by Honorlock, which worked well and which will continue to be used, for example, for online MCQ and numeracy tests. Performance was similar to that in previous years with no major deviations. Wishing to know if students were aware if Honorlock triggered an alert and how this was resolved, the team was told (meeting 11) that students had been warned about the possibilities of false accusation of cheating arising from Honorlock activation; they had been reassured that where issues were flagged the staff would scrutinise the video-recordings. Sometimes, students had taken the initiative and contacted staff where such incidents had occurred. In meeting 7, the students confirmed that the use of Honorlock was well organised,

with the system sharing screens to show students' work areas, and ensuring that students could not cheat.

The team was told (meeting 11) that the increase in the proportion of first-class and 2.i degrees seen this year was probably explained by the application of Covid-related regulations which impacted on nine students; these regulations still required all assessments to be passed as usual without compensation, the only difference being changes in the algorithm used to calculate the final degree classification. There were also some repeating students in the final year. The School was confident that everybody passing has acquired the appropriate level of competence. The team was told that in the previous programme, students could pass Stage 1 while omitting some areas such as chemistry, whereas the new programme demands every assessment to be passed. MCQ examinations in different modules cover all aspects of knowledge so that students cannot use strategic revision to avoid particular areas.

In response to the team's wish to understand the reason for the dip in the percentage of students awarded first or upper second class honours degrees in 2018/19, the School's representatives (meeting 11) stated that there were no obvious explanatory factors, other than it appeared to be an unusual cohort with a bimodal distribution. Changes have been made since then, including the use of case-base questions in teaching sessions and of interactive MCQs during lectures, as well as increasing the emphasis on the use of assessment for learning.

Wishing to know how well prepared they felt for starting their foundation training, and how they had been prepared for the Oriel process, the students told the team (meeting 7) that the programme had provided really good preparation for both foundation training and the registration assessment, with the staff explaining the focus and knowledge required. The students highlighted the value of IPE, clinical seminars and OSCEs at every stage of the programme in giving them confidence, along with a work ethic and the drive to succeed. Concerning Oriel, they had been provided with all the necessary information, making the system straightforward to use. The principles of situational judgement tests had been addressed, students learning that these tests considered how they would react when confronted with a particular set of circumstances, rather than testing knowledge.

The 'significant pedagogical developments' described in meeting 12 provided the team with additional evidence that standard 5 continues to be met.

Standard 6: Support and development for students

Standard continues to be met? Yes No (accreditation team use only)

The presentation (meeting 4) described how, at the start of the pandemic during the 2019/20 academic session, the School and the University quickly identified the need for significant student support with regular communication and dialogue with students, through course representative meetings and whole group, conference-style question and answer sessions. Some amendments were also made to the proposed assessment schedule to account for students with significant travel restrictions. In the 2020/21 session, while the vast majority of students returned in the early part of the first term, there were significant barriers that

prevented some students from returning to the UK and there was concern about Covid-19 case numbers in the UK compared with those in their home countries, as well as ongoing challenges, for example, with students requiring to self-isolate, problems with students being in different time zones for online delivery, difficulties in tracking student engagement when working online, and the lack of development of a community. Extensive dialogue and communication took place with students and with the International Office and Student Wellbeing. All students continued to be assigned a personal tutor with whom they had regular meetings that were attached to summative assessments. Additional student representatives were recruited and regular formal and informal meetings with staff took place, along with regular whole-group question and answer sessions via MS Teams and weekly briefings. An additional, deferred assessment period was established in July to support progression and maintain the workforce pipeline. In meeting 7, the students told the team of the excellent support that they had received from the staff, who had been quick to adapt to online delivery and who were always approachable and contactable. A great deal of support had been provided via e-mail and Microsoft Teams and a 'question and answer board' was available on the Canvas VLE. Course representatives who acted as student advocates were a valuable point of contact and took any issues to the programme and module leads who were quick to respond. The whole of the staff had been very supportive and the central University Wellbeing Service had also been helpful, although the students would have liked contact that was more frequent than weekly. International students had been supported by online sessions arranged to correspond to their different time zones.

In response to the team's wish to learn about the additional academic and pastoral support offered to MPharm students during the pandemic, the School's representatives (meeting 6) described how the Canvas VLE is used to deliver messages, which are both programme wide and module specific. Synchronous MS Teams sessions are used to ask about student welfare and weekly, pre-brief sessions are conducted each Monday by the module leads across all stages, these covering upcoming module activities such as IPE or online dispensing; these may be live or may comprise short audio-casts, and debriefings can also be offered at the end of the week, for example, in the form of question and answer sessions about dispensing classes. There is a 'Wellbeing' website through which students can make appointments and out-of-hours support is available. The wellbeing service is highlighted during induction and students can access the service either directly or via their personal tutors or the programme lead. Members of staff receive guidance on when to refer and to whom. The team was told of the 'fitness to study' policy which is intended as a supportive process to encourage students to seek help; it complements fitness to practise. Here, where students are found not to be engaging, a case conference is initiated through which students are pressured to attend meetings; ultimately this can result in suspension of a student for non-engagement.

The presentation (meeting 4) and the documentation described a new 'Flying Start' programme as part of induction, where students are welcomed by the Programme Leader and orientated to key staff. 'Flying Start' includes some programme-specific content, as well as an introduction to wider University support services. The programme is delivered mostly virtually, although there are some face-to-face sessions dealing with professionalism, as well as with health and safety. All sessions are captured and recorded using reVIEW and placed on the Canvas VLE; these include video-recordings relating to health and safety in laboratory classes. Students are now also introduced to the PCPI group by the staff coordinator of that group, together with PCPI

group members. Wishing to learn more about the 'Flying Start' programme, the team was told (meeting 6) that this follows the University induction and is a University-wide initiative, delivered through the VLE, aimed at preparing students for University-level study in order to enhance retention and progression, and to facilitate their integration into the University; the programme will evolve with time. It was developed to complement the existing induction and each programme produces bespoke material, allowing students to learn about the programme and to become familiar with the University and the academic team who will deliver the first year of the course, including the module leaders. There is no academic content but the programme covers wellbeing and disability support, so that these matters can be addressed right at the start. The programme also includes a pre-arrival assessment, whereby students are given a simple task requiring them to write 500 words on their reasons for choosing pharmacy. This allows development of tutor-student relationships and also allows identification of learning needs such as English language requirements. Students can access the programme from mid-August, although some access it later, for example, those who are admitted through clearing; everything is revisited, so that students are not disadvantaged by late access. In meeting 7, the students expressed satisfaction with induction, including the 'Flying Start' programme, and confirmed the requirement to write a 500-word account; they described how the induction included a lecture introducing the programme, which this year had been online, thus missing the opportunity to meet their tutors, although the tutors were very easy to contact.

Noting from the documentation that students entering the MPharm programme with access/foundation course qualifications show lower progression rates than those entering with A-levels, and wishing to know about the strategies to support such students, the team was told (meeting 11) that these students are identified and additional support is provided, for example, through personal tutor sessions. Importantly, all students are encouraged to engage and take control over their own learning, irrespective of background, as well as identifying issues themselves and seeking help when required.

In response to the team's wish to learn of the support available to those students who find online learning and assessment challenging due to lack of reliable internet connection, or lack of suitable computer equipment, the School's representatives (meeting 11) acknowledged that some students struggled, not just because of technical problems or equipment but because of their lack of suitable study space, for example, due to sharing accommodation. All learning material was recorded so that it could be accessed by students in their own time and at their own pace. The library had remained open throughout, with students being provided with webcams and able to borrow laptops. 95% of students were able to complete online assessments, with those who could not do so being deferred until the July opportunity. There had been a small number of technical issues with OSCEs which had been resolved. Stage 3 students had been brought onto the campus to take assessments in a Covid-secure controlled environment. Support had been provided with mock assessments using the Honorlock proctoring software and students had points of contact with the staff and the CELT team. The students (meeting 7) told the team that the Canvas VLE had worked well throughout, although that had been initial issues due to an excessive content; the School had worked with CELT to make the VLE more user-friendly. The School ensured that students were supplied with the necessary equipment and the University had invested in laptops, although students had been required to procure additional software. The students stated that, where possible, they had

undertaken the online assessments at home but where this was not possible they attended socially-distanced facilities on campus.

Standard 7: Support and development for academic staff

Standard continues to be met? Yes No (accreditation team use only)

Wishing to learn about the induction system for new staff members who are not pharmacists, the team was told (meeting 6) that there are not many non-pharmacists on the staff. One such staff member had joined during the pandemic, because of which they had been unable to meet other staff members. Accordingly, they had been provided with a buddy and supported by their line manager; they were now fully integrated into the academic team. Non-pharmacist staff members, including those holding Academic Tutor posts, are involved in TBL and also in team-based teaching, so that they become integrated from the very start. Enquiring further about how non-pharmacist tutors are supported in dealing with specialist pharmacy topics such as Oriel applications and careers, the team was informed (meeting 6) that all tutors are pharmacists and that Oriel is handled by staff members dedicated to that role, and who undertake a range of Oriel-related tasks with the students, all relevant information being posted on the VLE; there is increased emphasis on careers at stage 3. Any questions about practice that are directed to science staff members are referred to practice staff. Previously, students' professional portfolios, which are aligned to the GPhC's standards for pharmacy professionals, were assessed by the tutors but are now assessed by practising pharmacists. Students receive a preliminary talk about the marking of the portfolios, and feedback to students on their portfolios is now streamlined using a template to improve consistency, something appreciated by staff members.

The team was told (meeting 6) that a central workload model is used, against which the staff workload is mapped, with practice-based work being incorporated into the workload of individual staff members. The pandemic had increased the workload as a result of the need to prepare material for online delivery, along with regular module and team meetings. Because of the pandemic, this year has been challenging, and an emergency model was employed, with the workload model being now spread across a two-year period. Workload planning, which is part of the annual appraisal system, is undertaken pre-emptively for different categories of staff, and is now done electronically, being linked to central systems such as the HR database. The accreditation team noted the collegiality of the School staff.

In response to the team's wish to learn about the training and support that is available to personal tutors to carry out their role, including training in assessment, the School's representatives (meeting 6) explained that there is a buddying system, whereby more experienced tutors and line managers work with new staff members; a University document deals with pastoral aspects of tutoring. Because personal tutors supervise stage 3 projects, new staff members work with experienced supervisors. During their induction, all new staff members undergo standard basic training which includes a 'where to refer' document. Staff members are reminded electronically when their mandatory training needs to be renewed. Tutors are supported throughout and there is a personal tutor handbook in which all information concerned with the personal tutor system is formalised. A University 'progression team' complements the personal tutor system in supporting students, for example, in dealing with referrals and extenuating circumstances, especially for first year students. The personal tutor role has not increased hugely as a result of the pandemic, because regular meetings with

students linked to assessments have always been a feature of the system, which has simply continued during pandemic, although there has been an increased workload on central University services, with a significant growth in the number of wellbeing staff to provide support. Training in assessment is addressed through documentation and support from the module leads who, in order to ensure consistency, centrally manage all assessments, which differ among the modules; the assessment criteria are distributed to all members of staff by the module leads. All members of staff know to whom to speak on any matter and new staff members are encouraged to speak to the module lead if they require more information.

The team was told (meeting 11) about the support provided to all staff members during the pandemic, especially with reference to the move to online teaching and assessment. The University recognised that there were extensive learning needs and CELT had put together material including two video-recordings, demonstrating the recording and uploading of lectures, as well as how to transition material to an online format on the VLE, which has been redesigned. The staff development unit ran various courses, for example, on the use of Canvas, as well as on the use of various software, including that used for the editing of video-recordings. All staff members now have a University laptop and staff learning continues through the module teams, with online catch-up sessions and team chats. The staff had found the teaching of organic chemistry particularly challenging without the use of a whiteboard and various e-platforms had been trialled for the virtual teaching of chemistry using an iPad and stylus.

Standard 8: Management of initial education and training

Standard continues to be met? Yes No (accreditation team use only)

The presentation (meeting 4) described the School management structure which comprises the Head of School, supported by two Team Leaders, one for Pharmaceutical Sciences and one for Pharmacy Practice & Clinical Therapeutics. Each of the MPharm and the OSPAP has its own Programme Lead, with a lead for each stage of the MPharm; each of the MPharm and OSPAP modules has its own lead.

Wishing to know how student engagement has been monitored during the pandemic and how non-engagement issues have been addressed the team was told (meeting 6) of the difficulty of monitoring student engagement during online learning sessions, where, for example, a student may be logged on but not necessarily engaging with the activity; sessions were repeated so that students in different time zones could engage. During these sessions, the staff tried to encourage interactions without the mandatory use of cameras and, even online, members of staff get to know the students quite well. At Stage 1, students are engaged from the beginning, with staff members seeing them during 'Freshers' week', and then early in the course, as well as throughout. TBL is not only useful for keeping students engaged, but is also valuable for monitoring engagement. Monitoring student access to the VLE through viewing logs gives an indication of student engagement, as does obtaining early feedback from students, so that additional support can be provided where required. Evidence for engagement across the first three stages of the MPharm is also derived from tutor meetings, which are linked to assessments, and especially at Stage 2, where tutors engage with students for their critical appraisal and literature review, as well as at Stage 3, where the tutor is the project supervisor; thus, non-engagement can be rapidly identified. Early formative assessments also identified engagement and allowed appropriate interventions, such as referral to wellbeing or

international services. Students prefer face-to-face learning and would say that engagement declined with the duration of the lockdown, and certainly attendance at live lectures declined towards the end of term; however, all lectures are recorded, so that attendance is not necessarily a good indication of engagement.

Standard 9: Resources and capacity

Standard continues to be met? Yes No (accreditation team use only)

The presentation (meeting 4) described how budgeting is devolved through allocation of funding to each Faculty and Central Service. An annual planning cycle agrees a rolling Faculty budget for three financial years. At the Faculty level, financial planning involves the Academic Dean, Heads of School, and the Director of Finance in collaboration with the University's Executive Board. The Faculty Executive Committee, in partnership with Finance and Human Resources, is responsible for financial performance; this includes the identification of resource requirements, addressing fluctuations in income levels resulting from market trends and conditions, planning investment in areas of growth, projections of student recruitment, retention and progression, and anticipating pay awards and inflation. Both the Faculty and the School show an ongoing financial surplus. As well as the MPharm and the OSPAP, accounting for around 600 students, the School offers BSc programmes in Biochemistry, Biopharmaceutical Sciences, Medicinal Chemistry and Cosmetic Sciences, as well as postgraduate programmes, including Independent Prescribing, Clinical Pharmacy, Cosmetic Science, Drug Discovery and Development and Pharmaceutical and Biopharmaceutical Formulation; the School currently has 28 PhD students and also offers entry to undergraduate programmes through Integrated Foundation Year Science routes. In response to the team's wish to learn about the financial implications of the pandemic, including the impact on student recruitment, the School's representatives (meeting 6) described how the University's strategic management of Covid had been effective. Recruitment targets had been exceeded, appearing similar to pre-pandemic levels. Budgets were also helped by a voluntary severance scheme, which was taken up by a significant number of staff members across the institution; another scheme is currently in place, although with little impact on the Faculty. As part of the response to the pandemic, with its potential impact on student retention and progression, the University introduced flexibility around the regulations, for example, allowing extensions to coursework submission and providing additional assessment opportunities. Noting the effect of the pandemic on applications from overseas students, the team (meeting 6) queried the impact of this on income and the budget. The School's representatives explained that there had been no notable impact because the University does not apply a differential fee for overseas students. However, there had been some nervousness in the Far-Eastern market, with students deferring their studies until 2021/22 due to family pressures, with parents expressing concern about the high degree of uncertainty; the students were waiting until the last moment to decide to travel to the UK, although the situation was not as bad as last year, with overseas students still in the pipeline, and there had been an upturn in the numbers of students from countries such as South Korea.

The presentation (meeting 4) showed that there are currently 42 academic posts (equivalent to 39.5 FTE) in the School as well as eight staff members (2.4 FTE) employed through SLAs or as Teacher Practitioners. In response to the team's wish to know how the School monitors the

effects of staff turnover, and how this is managed to ensure an appropriate and realistic workload for staff members, the School's representatives (meeting 6) explained that when any member of staff left, the approach was always to seek a replacement; all members of staff who have left have been replaced. The impact of a member of staff leaving is considered, with additional temporary staff being brought in where required, although, while this is relatively straightforward in the practice area, it may be more difficult for science staff. The staff has shown a good degree of stability and staff turnover has no impact on the students. One key post that is critical to replace is that of the Team Leader for Pharmaceutical Sciences, as the current post holder is moving within the Faculty to become a Senior Lecturer in Clinical Therapeutics; as this is an important line manager position, a transition plan is in place for the change of role. New staff members are never put straight into a leadership role, providing them with the opportunity to learn about the programme and to receive initial support from other members of staff including through buddying; some members of staff started as Academic Tutors and thus were already familiar with the programme. The Stage leaders know all about the programme and can provide support.

In meeting 4, the presentation described the significant, three-phase campus redevelopment of the Sciences Complex, including the Medical School and a Cadaveric Facility. Wishing to learn of the impact on the MPharm of the delay to the campus redevelopment programme as a result of the pandemic, the team was told (meeting 6) that there was no impact, the only affected area being the Fleming building basement which accommodates laboratories for teaching microbiology, pharmacology and cell biology, as well as research spaces. Temporary accommodation is available in an empty, currently unused building in the Technology Park into which the laboratories can move. The work will be complete for the 2022/23 academic session.

The students (meeting 7) described the facilities as excellent, although they stated that they had struggled with some laboratory practical classes, in which television monitors placed at the end of each bench were not working; these monitors were there so that students could see what the demonstrators were doing during laboratory sessions.

Significant pedagogic developments

Of the examples below, examples 1, 3, 5 and 7 were discussed in meeting 12.

Example 1 - Oral health advice – development of educational interventions

Oral health is closely linked to general health and wellbeing, although a significant proportion of the UK population do not attend for regular dental appointments. Community pharmacies are well placed to offer an easily accessible source of healthcare advice for patients and represent an opportunity to target at-risk patient groups. Previous work in the School led to the development of a pharmacy-based oral health intervention which was found to produce a clear improvement in patient knowledge and intended behaviour. The training developed for pharmacists has subsequently been incorporated into the final year of the undergraduate MPharm curriculum through a session designed to improve both knowledge of oral health and develop practical skills that could be demonstrated to patients. The pandemic necessitated this session being run online using Microsoft Teams in the 2020/21 session but it is intended to

revert to a face-to-face format in future. The session consisted of both a taught and an interactive component, utilising mouth models and group participation. This was evaluated using a closed question evaluation survey and free text qualitative comments. The session was found to improve knowledge and increase confidence and practical skills in demonstrating oral healthcare techniques and in managing common presentations, as well as teaching students key referral criteria. It also showed the benefits of interactive teaching, indicating a greater gain in knowledge and enjoyment of the session facilitated through practical demonstrations and group participation.

Example 2 - Patient experience of design and delivery of inter-professional education - A mental health case study

The aim of this work was to explore patients' experiences of their involvement in the design and delivery of inter-professional education (IPE) interventions focussing on mental ill health for students studying on undergraduate healthcare and healthcare related programmes. The University has made a commitment to fully integrate patients, carers and public involvement (PCPI) into all the core functions of the Faculty of Health Sciences and Wellbeing. Members are recruited directly from the local community, through patient support groups and charities, and via a relationship developed between the University and the Community Mental Health Team of a local NHS Mental Health Trust. This study evaluated the involvement of the PCPI in an initiative to enhance the multidisciplinary teaching and learning of the interface between mental and physical health, also allowing the wider integration of the PCPI group into the Faculty. An iterative series of focus groups was held with 14 members of the PCPI Group who have a history of mental ill health. Their experiences of being involved in teaching and learning activities, collaboration with academic staff and integration into the academic faculty were explored. Several salient themes emerged from the study including reduced stigma and normalisation of experience of illness, enhanced self-worth, and improved wellbeing. In conclusion, a supportive University community and a designated academic PCPI co-ordinator facilitate a supportive environment for patients and carers to develop as educators, contribute to the training of future healthcare professionals and improve their own personal wellbeing. Appropriately resourced and well supported initiatives to integrate patients, carers and the public into the functions of an academic faculty can result in tangible benefits to individuals and facilitate meaningful and enduring connections between the University and the wider community within which it is situated.

Example 3 - Evaluation of Numeracy Skills of Pharmacy Students and Perceptions of Numeracy in Clinical Practice

The numeracy paper in the GPhC registration assessment changed in 2016 from multiple-choice questions (MCQs) to free-text answer questions, allowing the use of a calculator, to better represent clinical practice and increase the reliability of the assessment. An evaluation of University of Sunderland pharmacy student performance in the GPhC registration assessment showed that while overall pass rates were significantly higher than the assessment average, failure was more likely to be due to performance on the numeracy paper. To address this, new numeracy-based teaching and learning activities were subsequently developed, which are underpinned by this research, the aim of which was to assess pharmacy student performance in

both multiple-choice question (MCQ) and free-text numeracy question formats without and with the use of a calculator, respectively. Two numeracy assessments were given to Stage 3 and Stage 4 students. One paper included ten multiple-choice questions (MCQs) and the second paper consisted of ten free-text answer questions. Participants were then given an evaluation questionnaire to explore their perceptions about the assessments and numeracy in clinical practice. 60.9% of students passed the MCQ and 27.9% passed the free-text answer assessments. Most students felt insufficiently supported by the academic team and comments highlighted student concerns that teaching materials are not effectively preparing students for assessments; they wanted more teaching seminars and more practice questions to be available. Accordingly, numeracy teaching and assessment are now included at each academic stage, with the content and length of the assessments becoming progressively more complex across the years and all the numeracy assessments, other than those in the first year, requiring free-text answers; the quantity of practice questions has also been increased substantially, including formative assessment opportunities designed to develop numeracy skills and enhanced support is provided.

Example 4 -Retrospective perceptions of cross sector pre-registration training

In 2013, the School developed a novel pre-registration training programme in collaboration with a regional community pharmacy. Since that time 14 trainees have successfully completed the training, but no formal evaluation has been previously conducted. This study explores the experiences of pharmacists having undergone such training. A sample of registered pharmacists who had undertaken this programme underwent one-to-one semi-structured interviews over the telephone. The study found that that trainees were helped to develop by wide exposure to pharmacists from different practice backgrounds, and that continuous feedback from training supervisors enabled increased reflection and professional development. Participants felt responsible for helping others to learn; this, along with the self-imposed pressure to impress academic staff and integrate into an academic team encouraged their own personal progression. They perceived an increased preparedness to practice in comparison with their peers in single sector training. However, they noted communication barriers between the academic and practice site, and found that balancing the requests and expectations of different training sites was an additional pressure not experienced in single sector training. Overall, the participants perceived their training experience as being extremely positive, all stating that they would encourage others to undertake similar training.

Example 5 - Conscientiousness Index (CI) - A model to improve student engagement with research projects?

The research project in the MPharm programme is the largest piece of independent study students will undertake. Much of this work is self-directed and anecdotal feedback from staff following supervision of students was that those with increased conscientiousness appear to engage better with the research process. A validated tool, the Conscientiousness Index (CI), had been developed to help capture conscientious behaviour in undergraduate healthcare students. The CI has predictive validity for the Educational Performance Measure assessment in undergraduate medical students and had the potential for use in a research project module. Using this points-based CI tool, a Project Engagement Score (PES) was created. This study found that that the activities laid out in the PES (attending supervision meetings, providing written

report drafts to the supervisor, preparing for a systematic review by attending library training, and completing ethics approval and risk assessments before data collection) were moderately positively correlated with student performance. In the current academic year, these findings are being used to try and increase engagement with the research project, which now accounts for 40 credits. The module starts with an orientation that includes a description of the CI and a quiz to test their understanding. Students are told that the CI is predictive of performance and are encouraged to engage in these activities via regular notifications; there are follow up emails with students that have not submitted work to planned deadlines.

Example 6 - Cadaveric facility and anatomy teaching

The Anatomical Society has published a Core Anatomy Curriculum for Pharmacy to demonstrate a basic level of competence in anatomy. The introduction of the Medical School has provided the opportunity to develop a cadaveric facility and associated resources, scheduled for completion in 2021, and accessible to all healthcare students. For MPharm/OSPAP students, the cadaveric anatomy facility will provide an enrichment to the overall learning experience of anatomy; in particular, it will provide the opportunity for anatomical contextualisation of conditions, procedures and/or clinical context relevant to the practice of pharmacy. The inclusion of cadaveric anatomy will complement non-cadaveric resources such as anatomical models and virtual dissection, and will offer significant enhancement to teaching and learning, also providing opportunities for inter-professional education. To support and enrich the use of the cadaveric facility and enhance individual self-directed learning, the anatomy team and CELT are also working to develop a VLE-hosted anatomy learning package, using the digital anatomy resources already created. This approach will allow bespoke material to be developed with contextualisation of core anatomical content to pharmacy scenarios.

Example 7 – IPE focussed on a falls simulation

The presentation in meeting 12 included a description of an IPE activity focussed on the management of falls and the care of patients. This was based on the high prevalence of falls in people over 65 with the resultant impact on patients and high cost to the healthcare system. The activity was undertaken by OSPAP/Stage 4 MPharm students working with students of social work, paramedic science, adult nursing, mental health nursing, occupational therapy, physiotherapy and medicine. The aim was to consider a large number of factors in a simulated home environment in order to reduce unplanned hospital admissions due to falls; the factors included the patient themselves, simulated by a carefully chosen member of the PCPI group, along with assessment of the environment, and a consideration of the role of medication in causing falls. The participating students used authentic documentation and assessment tools, along with their history-taking and clinical assessment skills. In the exercise, they learned to challenge stereotypes and the use of poor language, such as “the patient had a fall”. The activity required them to use decision-making skills, along with shared decision-making in a multidisciplinary team, and students received feedback from the patient. In 2021, the activity, which involved 461 students, was held online because of the pandemic. The team was told (meeting 12) of some of the challenges of IPE, including achieving the correct professional balance in multidisciplinary student groups, and ensuring that all students engage. The last was more difficult online, because of students’ distractions such as having children at home. 20 patients were used with many members of staff to cover the breakout rooms. Facilitation is

much easier when the activity is conducted face-to-face, with students organised into groups. Students undertake pre-reading and pre-assessment, after which they move into their groups for the simulation, with staff members moving round the groups to encourage discussion. Student participation is encouraged by allocation of specific roles according to their profession. The team was told that attendance is compulsory for students of pharmacy, nursing and medicine, although not of psychology.

