

## **Keele University Master of Pharmacy (MPharm) degree interim - event report, June 2021**



# Contents

<b>Event summary and conclusions</b> .....	<b>1</b>
<b>Introduction</b> .....	<b>2</b>
Role of the GPhC.....	2
Background.....	3
Documentation.....	3
Pre-event.....	4
The event.....	4
Declarations of interest .....	4
<b>Schedule</b> .....	<b>4</b>
<b>Attendees</b> .....	<b>5</b>
<b>Key findings</b> .....	<b>6</b>
Standard 1: Patient and public safety .....	6
Standard 2: Monitoring, review and evaluation of initial education and training.....	6
Standard 3: Equality, diversity and fairness .....	7
Standard 4: Selection of students <i>and trainees</i> .....	8
Standard 5: Curriculum delivery and student experience .....	8
Standard 6: Support and development for students <i>and trainees</i> .....	9
Standard 7: Support and development for academic staff <i>and pre-registration tutors</i> .	10
Standard 8: Management of initial education and training .....	11
Standard 9: Resources and capacity.....	12
Significant pedagogic developments.....	12

## Event summary and conclusions

<b>Provider</b>	Keele University
<b>Course</b>	Master of Pharmacy (MPharm) degree
<b>Event type</b>	Interim
<b>Event date</b>	24 June 2021
<b>Current accreditation period</b>	2020/21 - 2022/23
<b>Relevant standards</b>	<a href="#">Future pharmacists Standards for the initial education and training of pharmacists, May 2011</a>
<b>Outcome</b>	Continued approval The accreditation team agreed to recommend to the Registrar of the General Pharmaceutical Council (GPhC) that the MPharm degree provided by Keele University should continue to be approved until 2022/23, at which point the provision will be accredited against the Standards for the initial education and training of pharmacists 2021.
<b>Conditions</b>	There were no conditions.
<b>Standing conditions</b>	The standing conditions of accreditation can be found <a href="#">here</a> .
<b>Recommendations</b>	No recommendations were made
<b>Registrar decision</b>	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.
<b>Key contact (provider)</b>	Dr Katie Maddock, Head of School
<b>Accreditation team</b>	Professor Andy Husband (Team Leader) Professor of Clinical Pharmacy and Head of School, Newcastle University Dr Geoffrey Hall (Team member-academic) Retired, formerly Associate Head, Leicester School of Pharmacy, De Montfort University Dr Marisa van der Merwe (Team member-academic) Associate Head (Academic) Principal Lecturer in Pharmaceutics, University of Portsmouth Professor Anne Watson (Team member-pharmacist) Postgraduate Pharmacy Dean, NHS Education for Scotland

	Farwah Bukhari (Team member-pharmacist recently registered) General Practice/Domiciliary Care Pharmacist, Lewisham & Greenwich NHS Trust Fiona Barber (Team member-lay) Independent Member, Leicester City Council
<b>GPhC representative</b>	Chris McKendrick, Quality Assurance Officer, GPhC
<b>Rapporteur</b>	Dr Ian Marshall (rapporteur) Proprietor, Caldarvan Research (Educational and Writing Services); Emeritus Professor of Pharmacology, University of Strathclyde
<b>Observers</b>	Parbir Jagpal (observer – accreditation panel member in training) Director of Postgraduate Studies and Programme Director - Practice Certificate in Independent Prescribing, University of Birmingham

## 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 programme at the University is delivered by the School of Pharmacy and Bioengineering, one of four Schools in the Faculty of Medicine and Health Sciences. A Faculty restructure was completed in August 2019 to align with a wider University approach to integrate research and education within schools to enable development of capacity, capability and quality enhancement across all areas.

An Interim Visit was conducted by the GPhC in January 2018; the accreditation of the MPharm programme was confirmed subject to the following two conditions:

1. The School must review its admission procedures to ensure that all necessary information is readily available to prospective students and that the criteria for admissions are explicit; this is to meet criteria 4.1 and 4.2. This is because it was unclear to the team how applicants are made aware that gaining at least month of work experience in a pharmacy would facilitate their admission, especially in relation to the operation of the University's unconditional offer scheme.
2. The School must review its interview processes to ensure the fair and equitable application of the interview criteria; this is because the team agreed that the application of these criteria is currently too subjective to ensure that the selection criteria are applied fairly. This is to meet criterion 4.3

The School reviewed its processes and the GPhC confirmed that the conditions had been met in July 2018.

## Documentation

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

- Appendix 1: Admissions and interviewing policy and standards, including contextual offers policy
- Appendix 2: Aggregate applications data and entry profiles for the last three academic years (including the current academic year)
- Appendix 3: Critical evaluation of the applications data and entry profiles in Appendix 2
- Appendix 4: Aggregate progression data for the three cohorts by:
  - Entry qualification(s)
  - Sex
  - Age
  - Ethnicity
  - Disability
- Appendix 5: Critical evaluation of the progression data in Appendix 4
- Appendix 6: MPharm risk register for the next two academic years
- Appendix 7: Staff list and vacancies (with timelines for filling them)

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 7 June 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 video conference between Keele University and the GPhC accreditation team on 24 June 2021 and comprised meetings between the GPhC accreditation team, representatives of the MPharm programme and students.

## Declarations of interest

Dr Van Der Merwe informed the team that the Head of School at Keele University was an external examiner at her own institution. This was not considered to be a conflict of interest.

## Schedule

### Day 1 – 24 June 2021

Meeting number	Meeting	Time
1.	Private meeting of the accreditation team	09:15 – 09:30
2.	<b>Progress meeting</b> (provider joins zoom meeting at 09:30) Including presentation (45mins max). Presentation to cover: <ul style="list-style-type: none"><li>• Course updates, changes and developments since the last event:<ul style="list-style-type: none"><li>○ Any significant changes or developments</li><li>○ Temporary changes due to the pandemic</li><li>○ Staffing</li><li>○ Restructure</li><li>○ Finance and budget</li><li>○ Academic regulations</li></ul></li></ul>	09:30 – 11:30 (including short break)
3.	Questions focusing on Standards 1,2,7,8 and 9 Private meeting of the accreditation team	11:30 – 11:45
4.	<b>Admission, progression, monitoring and support meeting</b> (provider joins zoom meeting at 11:45) Questions focusing on Standards 3, 4, 5 and 6	11:45 – 12:45

5.	Private meeting of the accreditation team	12:45 – 13:00
6.	<b>Significant pedagogical developments presentation</b> (provider joins zoom meeting at 13:45) Including presentation (25mins max). This session focuses on Standards 5 and 10	13:45 – 14:25
7.	<b>Student meeting</b> To include students in all years of the MPharm	14:45 – 15:45
8.	Private meeting of the accreditation team	15:45 – 16:45
9.	<b>Deliver outcome to programme provider</b> (provider joins zoom meeting at 16:45)	16:45 – 17:00

## Attendees

### Course provider

#### The team met with the following representatives of the University:

Name	Designation at the time of accreditation event	Meetings attended
Professor Katie Maddock	Head of School	2, 4, 6, 9
Dr Rebecca Venables	Lecturer in Clinical Pharmacy	2, 4, 6, 9
Kalpesh Thakrar	Academic Clinical Educator	2, 4, 6, 9
Alison Cooper	Lecturer in Pharmacy Practice	2, 4, 6, 9
Matthew Stibbs	Lecturer in Pharmacy Practice	2, 4, 6, 9
Professor Pauline Walsh	PVC & Executive Dean	2, 9
Dr Russell Pearson	Senior Lecturer in Organic & Medicinal Chemistry	2, 4, 6, 9
Dr David Morgan	Reader in Pharmaceutical Sciences & Technology	2, 4, 9
Dr Gary Moss	Senior Lecturer in Pharmaceutics	4
Dr Anthony Curtis	Senior Lecturer in Organic and Medicinal Chemistry	4
Dr Maria Allinson	Senior Lecturer in Pharmacy Practice	4
Dr Ruoli Chen	Lecturer in Clinical Pharmacology	4
Dr David Mottershead	Lecturer in Biochemistry & Cell Biology	4
Dr Simon Jacklin	Lecturer in Pharmacy Practice	4
Karen Gunnell	Senior Lecturer in Pharmacy Practice	4
Kerry Neville	Academic Clinical Educator	4
Carole Blackshaw	Senior Teaching Fellow in Pharmacy Education	4
Dr Jonathan Berry	Academic Clinical Educator	6

The team also met with a group of 13 students in each stage of the MPharm programme.

## Key findings

### Standard 1: Patient and public safety

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

The submission stated that the GPhC 2017 *Standards for Pharmacy Professionals* are introduced very early in Stage 1 of the course and are revisited every year through the Professional Development Portfolio. Students are required to complete an enhanced DBS check and an occupational health check before they are allowed to attend their first placements; thus all students go through this clearance process during the first semester of their Stage 1 studies. Students who fail to comply with either DBS or occupational health processes after due warning are referred into the School's Health and Conduct process which may further result in a referral to the Faculty Fitness to Practice Committee. The team was told that the University will continue to follow NHS and government guidelines during the pandemic; students who refuse to be immunised against COVID-19 cannot be forced to be vaccinated. If it is alleged that a student has demonstrated unprofessional behaviour, or has a disciplinary offence recorded by the University, they are first referred to the School Health and Conduct process, as outlined in the University FtP procedure. The team was assured that there had been very few instances of poor student behaviour during the pandemic, although many students had reported feeling isolated. There are competency-based assessments (CBAs) running through all four years of the programme which contribute to students' progression on a pass/fail basis; students are deemed to have failed their CBA assessments if they take any course of action that would endanger patient safety. The only major change to this was that Stage 1 CBAs were not delivered in 2020 due to the COVID-19 lockdown; the learning outcomes covered by the CBAs were instead incorporated into the end-of-year examination paper. The team was told that the soft skills set for Stage 1 CBAs would be made up easily in Stage 2. The team was told that students who fail the CBAs receive feedback and are encouraged to reflect upon this. Fail criteria with respect to patient safety were included in the assessment of Stage 4 case presentations but the team was assured that anything that would cause a safety issue would lead to an automatic fail of the relevant assessment; with failure followed by a *viva voce* and a potential resit. The team was told that although patient contact had been limited in Stage 4 due to the pandemic, students had had previous patient contact. Nevertheless, students interviewed expressed themselves as feeling unprepared to enter pre-registration training (see commentary to Standard 6 below). The team learned that the School checks the suitability of the premises used for the students' self-selected placements in Stages 2 and 3; there have been very low numbers of reports of poor student behaviour during these placements. It was confirmed to the team that students are forbidden from selecting a pharmacy run by a family relation or a friend. The team queried the use of only one assessor for the CBAs but was told that this is a pragmatic approach during the COVID-19 pandemic for classes of 120 students and that the results and comments from assessors are considered at a programme level group meeting.

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

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



The documentation explained that any proposed changes to assessment are sent to external examiners for their feedback before implementation, with their feedback on assessment performance and any associated issues being followed up and acted upon. The Student Staff Voice Committee (SSVC) is governed by the Student Union and the School is required to provide the Union with the minutes of all meetings. There is a required minimum of two Student Voice Representatives (SVRs) per year group. A matter of concern to the team was the reluctance of the School to respond to student opinion reported by students interviewed, coupled with the apparent dismissive nature of senior staff. At the end of each academic year, the School Director of Education and the Head of School are required to produce a report on the School's academic performance for that year, considering performance of assessments, student feedback through end of semester Teaching Evaluation Questionnaires (TEQs), areas of good practice, and reflection on the results of the National Student Survey and TEF benchmark data. The team was told that the results of the latest NSS had come as a huge shock to the School with the outcomes very different from the School's own surveys and the views of the external examiners. The team learned that the University policy is for feedback to be delivered within 15 working days but that this had been increased to 20 days during the pandemic. The School informs students if there is a likely delay in feeding back but the quality of feedback had been the most substantive issue in the NSS findings. The School had also been disappointed in responses from Student Voice; the team was told that minutes of meetings are available to students but that the message did not seem to be getting across and that the School's view was that representatives need to be better trained by the Students' Union (see also commentary under Standard 6). The team noted the decrease in the registration assessment pass rates from 2017 to 2019, from 89% to 71% and was told that the School provides support to its graduates in pre-registration training from two members of staff. There is a domain on the VLE, a mock exam is run, a webinar is available, and there is very good engagement and feedback from the School's alumni. However, the School felt that it was hindered by lack of data on the identification of failing graduates from the GPhC although it tries, where possible, to identify those graduates that fail the examination.

### Standard 3: Equality, diversity and fairness

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

The submission stated that the principles of equality, diversity and fairness are embedded at all levels and the School has an Equality, Diversity and Inclusivity (EDI) Committee. In 2019/20 all Pharmacy staff members completed a new, mandatory, training module "*Equality in the Workplace*". All staff members involved in interviews for new members of staff are required to complete recruitment and selection training, and refresh this training every two years. The core elements of this training have been applied to staff members involved in MPharm admissions interviews to ensure, as far as is possible, that all applicants are treated equally and fairly. The School's annual review report requires an analysis of, and commentary on, student performance based on gender, ethnicity and declared disabilities; analysis of these data feeds back into the course review and development process. The University has begun a three-year project to decolonise the curricula of all its courses and the EDI committee is leading the School's participation in this. As part of this initiative the submission stated that the School will conduct a full review of assessment types and processes with the aim of addressing the attainment gap that exists between White and non-White students where there has been a large differential between those two groups

in the attainment of first class and 2:1 degrees. The School has noted that the emergency changes made to assessments as a result of the Covid-19 lockdowns reduced this gap and that this warrants further exploration. This had been a University-wide phenomenon and it was surmised that the move to open book assessments could have been a factor in providing more comfort for students and not having to learn by rote. The team noted that the biggest improvement had been with BTEC entrants in Stage 1 but was told that it was too early to know if this improvement had translated to their Stage 2 performance although the School is looking at BTEC students who struggle with formal examinations. The team was told that it had been difficult to recruit patient volunteers from diverse backgrounds, and that the Patient Voice group tended to be made up of retired white people. Nevertheless, the team was told that the School had recruited some younger people and intended to make efforts to recruit from diverse groups of the population, including from the local Polish community.

#### Standard 4: Selection of students *and* trainees

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

The documentation stated that the entry requirements for the MPharm have not changed since the previous interim visit in 2017 with the exception of reviewing the grades required at GCSE for maths and English language due to the new grading system, and aligning the BTEC entry requirements to the School's A-level requirement following changes in the mode of assessment of the BTEC. All applicants meeting the required criteria for entry onto the programme are invited for an admissions interview. Applicants are marked on a 0, 1, 2 scale for suitability. Prior to the pandemic these interviews were held at the University or, in the case of international students, usually by telephone. During the pandemic the School has moved to online interviews, using a standardised set of questions, via MS Teams; the team was told that PhD students are now no longer used as interviewers and that for consistency and to reduce subjectivity the applications are benchmarked against a set of criteria. All applicants holding an offer for both the MPharm and the preparatory year are then invited to attend an Offer Holder Day event to gain more information about the University and the course for which they have applied. Since the last interim visit the use of an Unconditional Offer Scheme has ceased. Students admitted to the preparatory year (the Health Foundation Year) are required to achieve a minimum of 40% in the 45 credits of Semester 1 modules and 65% in the 75 credits of Semester 2 modules to proceed to Year 1 of the MPharm. The team was told that the School aims to recruit 130 students over the three iterations of the MPharm programme.

#### Standard 5: Curriculum delivery and student experience

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

The submission indicated that since the last accreditation visit minor changes have been made to the teaching and weighting of some assessments within each year of study, with the full support, and following the recommendations, of the external examiners. These include: the use of voting technologies extensively in Stages 1 and 2 of the course, primarily using TurningPoint software, the movement of multiple-choice examinations into the online space, the use of seen examination papers within the main assessments in both Stages 3 and 4, a new final year authentic assessment based upon real-life medicines information queries, online competency-based assessments as a

result of the COVID-19 lockdown, review and revision of the IPE programme with the gamification of several elements leading to greater student engagement and a new IPE programme for final year students whereby they act as pharmacists on call for one day. In addition, the embedding of shared decision-making as a key communication skill has been facilitated by a virtual patient avatar. Low stakes assessments designed to provide encouragement for continued engagement with student learning have been introduced although students interviewed told the team that some staff members had not understood the purpose and organisation of these assessments. The team learned that during the COVID-19 pandemic the teaching team acknowledged that all Semester 2 assessments would essentially become open book in 2020. Time-limited and randomised MCQ papers, which had already been moved to online delivery, became measures of engagement rather than contributing to marks with the result that examination marks were slightly higher than the previous year. For long answer questions (LAQs), for level 6 there was a simple move to online submission of answers, and for level 7 there was already an online submission of recordings. Additionally, competency-based assessments (CBAs) were moved online. For 2020-21 the team was told that large question banks for MCQ papers allowed randomisation of questions; there had been no need to prevent back-tracking and there had been no evidence of collusion in these papers. The MCQs were described as the main assessment tool for differentiating student performance. The mark scheme for LAQs gave greater credit to students who showed evidence of application and synthesis than those that simply reproduce material. The team was told that most of the assessments are integrated, requiring answers drawing on science, practice and therapeutics. For degree award calculations 2020-21 students achieving marks just below a class boundary will be automatically raised to the higher degree classification. Students who fail at second and final attempt and where this fail cannot be condoned, will get an automatic further capped reassessment attempt, and there will be no benchmarking or module mark adjustments. Students interviewed from senior years of the course told the team that apart from some technical difficulties, the online MCQs had worked well, but reported that they had been refused feedback on LAQs which they had found very frustrating. The team was told that there had been no University-organised placements during the pandemic with the exception of the optional GP placement for Stage 4 students which had been fully risk-assessed. Instead, simulated community events for Stage 1 and hospital events for Stages 3 and 4 had been organised. The team was told that many students had worked in pharmacy or healthcare settings during the pandemic, and that some of the Stage 2 and Stage 3 students had managed to conduct their self-organised placements which had been quality assured in the usual way. The team was told that for the practical laboratory classes that it had been possible to run, in order to maintain social distancing, the number of repeats of the class had been increased from four to twelve. In terms of plans for the future, the team was told that the School needs to know as soon as possible if there will be a return to campus activities for the forthcoming academic year. It was said that while some students liked the asynchronous teaching that had been delivered others did not, so a careful use of blended learning would be necessary to suit diverse learning styles.

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

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

The team was told that feedback on student satisfaction and support for the current academic year had not been analysed fully yet but the main findings to date were of students feeling isolated,

having problems with communication and organisation and wanting more live teaching sessions. The submission described how during the pandemic lockdown, personal tutors have been, in addition to their scheduled personal tutee meetings, encouraged to contact their tutees once a fortnight either via Teams or email. The team was told that each tutor has 15/20 tutees across the entire student cohort. The team was also told that the School operates an open door policy and that in the case of students being unable to contact their personal tutor, they may contact the year tutor or senior tutor, or any other member of staff. Extra weekly tutorials were set up for Stage 1 students mainly for support. There was a dichotomy of opinion from students interviewed on the effectiveness of tutorials with the junior years finding the tutorials very helpful and the more senior years reporting lack of interaction and encouragement. All students who contracted COVID-19, or who were required to self-isolate because of a close contact with a COVID-19 patient, were contacted individually by the Head of School, their personal tutor and the relevant academic Stage Lead to provide advice and support, including ensuring that students were supported to be able to continue with their work if they were well enough to do so. The University provided support packages for all students living within a 10-mile radius of campus, including food packages, postal deliveries, prescriptions, and access to laundry facilities as required, as well as providing bookable space in the library for quiet study. The documentation stated that early in the pandemic the School recognised the need for additional scaffolding of learning particularly for students in Stages 1 and 2 engaging with online learning for the first time. This took several forms including: clearer, graphical provision of information on the virtual learning environment signposting students to asynchronous and synchronous activities; the introduction of low stakes assessments; and additional weekly tutorials in groups of 16 for Stage 1 students to contextualise their learning. Students interviewed told the team that the low stakes assessments had been useful although several of the teaching staff had not understood the purpose and operation of the assessments and had therefore not been able to help their students. Students have also been provided with regular hints and tips on how to make the best of Microsoft Teams and the associated suite of Office365 products to enhance their learning. Many of these elements are likely to remain once the campus reopens fully. The University has provided a full online support package for students during the pandemic including advice on learning in the unfamiliar online environment, and access to an enhanced mental health and wellbeing service, including access to counselling services via Teams. Safety-netting policies were developed to ensure that students were not disproportionately disadvantaged by the impact of lockdown on their studies, including relaxed exceptional circumstance evidence requirements. Despite the above, and the statements given by staff members of a caring and supportive school, the team noted the dissociation of this impression from the views of students interviewed. Students in the earlier year were generally supportive of the School's efforts during the COVID-19 pandemic and had enjoyed the online teaching, but students from the more senior years considered themselves poorly prepared to enter pre-registration training, having received little clinical and patient contact, and were critical of the School's reluctance to respond to student opinion. Those students that considered themselves prepared to enter pre-registration training felt that they had gained the necessary experience through jobs in pharmacy rather than from the course.

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

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

The submission explained that all new members of staff have a full induction programme, including the University's "Welcome to Keele" session which they are expected to attend, and are required to

complete the MA in Learning and Teaching in Higher Education programme (MA LTHE) if they do not already have a relevant post-graduate teaching qualification. The team was told that a recently appointed new member of teaching staff had undergone an online induction process due to the pandemic but had been able to come onto the campus and had attended staff meetings. The team was also told that it is the intention to re-establish the peer support activities. Over 90% of teaching staff within the School have achieved a level of Fellowship status with the Higher Education Academy (HEA). The Faculty has a series of Faculty Research Themes (FReTs) including the Musculoskeletal Medicine FReT hosted by the School to which the majority of the laboratory-based research staff belongs, and the Education FReT hosted by the School of Medicine to which the majority of the registered pharmacist staff belongs. Staff may belong to one or more of six research groups depending upon their research field(s). The University has introduced two separate academic promotion routes; Education and Research (E&R), and Education and Scholarship (E&S), with the aim of opening up a promotion pathway for those members of staff who were largely engaged in the scholarship of teaching and learning. The team was told that the University had adopted a flexible working approach during the COVID-19 pandemic coupled with health and wellbeing support. There had also been useful guidance on home-working, and IT support around creating synchronous teaching events and with workshops on online teaching. The team was also told that the School had purchased a chemistry laboratory simulator to demonstrate 80 different practical techniques which gives instant feedback to teachers. The team learned that there is a basic workload model which allows staff time for professional development, including CPD. The School intends to hold a series of meetings over the summer to plan for the upcoming academic year, but the Head of School is encouraging staff to take their annual leave to recuperate from the stresses of the 2020-21 year.

## Standard 8: Management of initial education and training

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

The merger of the School of Pharmacy with the Institute for Science and Technology for Medicine (ISTM) led to the creation of a new Senior Executive Team for the new School of Pharmacy and Bioengineering. This consists of: Head of School, School Manager, School Director for Education, School Director of Research, and Director for Postgraduate Education. Decisions regarding the School budget, staffing and other resourcing issues are made at School Executive level before ratification by the Dean's Office via the Faculty Executive Committee. The School Education Committee (SEC), chaired by the School Director for Education, has responsibility for the quality assurance of teaching, learning and assessment within the School at both undergraduate and postgraduate levels; all new modules and module revisions are considered and approved by the SEC before being sent to the Faculty Education Committee (FEC) either for ratification or further approval. The MPharm Programme Director reports directly to the Head of School and has overall responsibility for the management of the MPharm programme including timetabling, assessments and module review.

## Standard 9: Resources and capacity

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

The submission explained that the MPharm accounts are reported monthly and separately from all other School activities. The Faculty accountant regularly updates the Head of School and the School Business Manager on progress against the business plan allowing strategic decisions to be made as necessary. The forecast budget indicated that the funding is at an appropriate level to deliver a sustainable MPharm degree. The School currently has a student/staff ratio of 17.8:1. The staff complement includes 19 registered pharmacists in the core MPharm academic staff, along with a further nine who contribute to the MPharm through electives or clinical teaching sessions. The team was told that since the last accreditation visit, three staff members had left with two having been replaced; thus, currently there is one academic staff vacancy which the School aims to replace with a joint post with Midlands Partnership Foundation Trust, the major provider of mental health support within the region. The team was told that although placement providers do not sit on the course management teams, they are involved in any changes to the programme. The team was also told that the ISTM staff joining the School will not be involved largely in the undergraduate teaching, but will bring expertise in genomics to the course developments to meet the new GPhC standards and will provide an elective for the MPharm. The undergraduate activities of the School continue to be largely based within dedicated buildings at the centre of the campus. The major change has been the expansion of the Huxley Laboratories and the building of the Central Science Laboratory, a new, state-of-the-art laboratory facility which houses chemistry and pharmaceuticals teaching, along with a 160-seat computer laboratory in which online examinations are held. The vacated pharmaceuticals laboratory within the Jack Ashley Building remains occupied by the School with several research laboratories relocating; final year projects within these research areas are conducted here. During the pandemic, the majority of teaching was delivered via MS Teams (synchronously) or the KLE (asynchronously). The Learning Developer team within KIITE produced resources for both staff and students on adapting to, and exploiting, these technologies. Students who had difficulties accessing online learning in their home environments or did not have a suitable place to work at home were allowed back to their University accommodation where they have been able to access learning support and study areas as needed. Core campus facilities, including the library, informal study space and catering have remained open throughout the pandemic.

## Significant pedagogic developments

### Example 1 - Online CBAs

#### Online CBAs

##### Objective

The CBAs run at Keele are designed such that each student undertakes six stations; complexity increases as students' progress through the course. Students have six-minutes to complete each station with reading time prior. Stations include clinical checks, counselling and managing interactions. As a result of the Covid-19 pandemic the assessments could not be conducted in the usual way. Instead, they were designed to be carried out remotely using Google Meet software to ensure students were still meeting the General Pharmaceutical Council outcomes for education



and training.

### Pedagogic underpinning

The role of the pharmacist has evolved, moving from predominantly that of dispensing medicines and provision of information to patients and healthcare professionals to playing a pivotal role in the delivery of clinical services, management of chronic conditions, lifestyle-related diseases and prevention and detection of ill health.<sup>1,2</sup>

All MPharm students undertake Competency Based Assessments (CBAs) towards the end of each academic year. They increase in complexity as students progress on the course, in line with a spiral curriculum. These are designed to assess students' competency over a range of learning outcomes in preparation for the wider pharmacy roles.

The outcome levels in Standard 10 of the General Pharmaceutical Council's (GPhC) Standards for Education and Training have been derived using Miller's triangle.<sup>3,4</sup> CBAs simulate a 'real life' setting, enabling students to 'show how' they can apply their knowledge, skills and understanding of the course content in a safe environment (see Figure 1 below).

### Design

The CBAs were designed to run virtually using Google Meet. The virtual running of the CBA led to a change in the station; it was not feasible to run the more 'practical' stations such as accuracy checking. The CBAs were designed so that students would sit four stations in total; three virtual 'face-to-face' stations and one written station created as a Google Form. The virtual 'face-to-face' CBA stations were: interaction check, clinical check and patient counselling. Students had 8-minutes to complete each station. The written station surrounded the legality of Controlled Drugs; this was uploaded onto the Keele Learning Environment (KLE) and available for a one-hour period, the day after the 'face-to-face' stations, ensuring students in different time zones would be able to access it.

In advance of the assessment, an announcement was released on the KLE to inform the students of the virtual CBA. All students were invited to IT drop-in sessions via Google Meet two days prior to the assessment to resolve any potential IT problems. Contingency planning included using audio only if no webcam was available and utilising the chat function on Google Meet where necessary.

Nine sets of stations were created; each 'set' consisted of the three virtual 'face-to-face' stations and the one written station. Google Forms were created with analytical checklists for each virtual 'face-to-face' station. This allowed assessors to mark 'yes' or 'no' on the station components for each student, and also to provide feedback for the students to receive at a later date.

Sixteen assessors were recruited to assess the students in the virtual 'face-to-face' stations. All assessors were GPhC registered academic staff within the School of Pharmacy. Assessor training was held on Google Meet. On the assessment day, a Microsoft Teams group was created for the assessors and the CBA development team. This allowed for queries to be answered immediately, conversation between assessors and helped to ensure quality assurance.

Each assessor virtually assessed eight students. Pre-arranged 45-minute timeslots were created for each student, accounting for any time zone requirements or other circumstances, such as childcare. At the start of each virtual call, each student's name and email address was confirmed.

The set of stations was then emailed over to the student. Upon confirmation that they had received and opened the document, the assessment began. Each student completed their three 'face-to-face' stations with the same assessor. All students in a particular timeslot received the same set of stations. The students in the next timeslot would then receive the next set of stations, and so on.

### Results

The newly designed CBA online assessment was successful. With a strong team who had previous experience in the design and delivery of CBAs, the delivery of remote CBAs enabled students' competence to be measured virtually.

Both the assessors and the students reported feeling relaxed for the virtual CBA. Assessor training was successful at easing any anxiety prior to the day. The students valued the level of information they were provided and the IT drop-ins prior to the assessment ensured they felt more confident. The main avenue of feedback was anecdotal via the Microsoft Teams chat, one-to-one chats with assessors and through staff meetings. Anecdotal feedback was also received from students. Google Meet was an effective tool to assess students in the virtual 'face-to-face' stations. All students and staff were able to access it. Few technological problems were reported, but where there were issues, the contingency plans ensured all students could undertake their assessment.

### Conclusion

Both the virtual 'face-to-face' and written stations were successful in their running. The assessment demonstrated the ability to measure student competence in a virtual setting. The overall student performance in the virtual 'face-to-face' CBAs was comparable to in-situ 'face-to-face' CBA. In line with the new GPhC IET standards<sup>5</sup>, it is planned that a blended assessment approach will be adopted for future CBA assessments. Any Universities considering a similar online assessment should have a strong team with previous experience in designing and delivering CBAs. Having IT support prior to and on the assessment day was also pivotal to the success. Full preparation was key to the smooth running of the day.

## Example 2 – Gamification of IPE

### Objectives

To move from a case-based program to include elements of gamification.

Increase student awareness of extended scope of other healthcare and related professions.

### Pedagogic underpinning

Gamification defined as "a process of enhancing services with (motivational) affordances in order to invoke gameful experiences" has been investigated in a wide variety of contexts in the 21st Century (Haamari et al; Seaborn and Fels). It is thought to provide greater motivational affordances which in turn increase psychological engagement with learning and improve intrinsic learning behaviours in students. In medical education, gamification has been shown to be effective at improving knowledge sets, creating opportunities for reflection-in-action and



increasing opportunity for hard-to-schedule learning (Duque et al.; Soderstrom et al), lending itself well to difficult to timetable subjects such as IPE. Key reviews have cited context, extrinsic motivations and the individual variation all greatly affect the outcome of any games-based learning intervention (Haamari et al. 2014).

### **Design**

IPE2 included around 600 second year students from across the health faculty; the professions involved were medicine, midwifery, nursing, pharmacy, physiotherapy, radiography and rehabilitation science. Students were allocated to a group of 10-12 students comprised of different professions and assigned a facilitator.

In the learning experience, the group take on the role of a commissioning group for a local area. The area is based on the town of Cockermouth and has a population of around 10,000 people. For the first part of the session, each group must discuss and debate how to spend their budget; how many of each healthcare professional role they would like and what premises do they require to provide care for the local population. Once they have agreed their healthcare provision, the second gamified task, involves a flood which cuts the town off from the outside world. The students must work together to decide how to respond to a variety of different events to successfully provide healthcare to the town. Due to their limited resources, the students must think critically about which professional(s) to send to each of the different events and observe the outcomes of their decisions.

Due to the COVID-19 pandemic, in October 2020, we took the decision to move IPE2 online. MS Teams was chosen as the platform to host the learning with each student group provided with their own private channel. The board for the game, the town map, was provided as a digital file which the students could all edit and view synchronously.

### **Results**

A questionnaire-based evaluation, showed that students from across the faculty found the learning enjoyable (88%), learnt more about other professional roles (88%) and felt they learnt things they could take into their practice (88%). Further evaluations revealed pharmacy students often feel comfortable to go along with decisions made by other group members, but don't tend to be comfortable making final decisions themselves; further work might be required to support pharmacy students' development as decision-makers.

A surprising result was the positive impact of the measures put in place due to Covid. 72% of respondents felt that the online environment was either better, or equivalent to physically present teaching. Students reported no/little issue with communication and appeared to be more task focussed in the online environment.

### **Conclusion**

The gamification elements of IPE were generally well received and required significant collaboration between students as they dealt with the challenges posed by the "game". Covid provided an opportunity to innovate with the delivery of IPE and consideration is being given to running IPE online in the future.

*The team was told that participation of students was compulsory and that Years 1 and 2 students write reflections for their portfolio.*

### **Example 3 – Project Ponder – Making Students Think**

#### **Objective**

Project Ponder was introduced in 2016 with the objective of making undergraduate Pharmacy students debate, discuss and really think about the chemistry content of their course while becoming more inquisitive learners.

#### **Pedagogic underpinning**

Project Ponder incorporates many aspects of active learning, including problem-based learning (PBL), peer-instruction (PI), team-based learning (TBL), gamification and collaborative learning. It also embeds technology-enhanced learning (TEL) through the use of different audience response systems.

#### **Design**

Project Ponder, now in its sixth iteration, was designed for Stage 1 & 2 students on the MPharm programme. Phases I & II saw the incorporation of two different types of clicker handset embedded into chemistry problem class sessions to establish if individual or team-based clicker usage was most beneficial. Phase III explored the benefits of intra- and inter-team peer instruction by investigating whether cohort clicker responses should appear during or after polling events. The incorporation of Plicker voting cards as an alternative to clickers formed phase IV, while phases V & VI involved the use of chemistry-themed crosswords for students to solve as revision aids and also to remotely create in online teams as low-stakes assessments (LSAs) to help increase engagement & student interactions during COVID-19 enforced distance learning.

#### **Results**

In addition to positive student feedback, Project Ponder has improved exam grades and attrition rates and has helped students improve their problem-solving skills and allowed them to learn from their colleagues through peer instruction (PI) and collaborative learning opportunities and via other active learning approaches, such as gamification.

#### **Conclusion**

The success of Project Ponder is two-fold. For students, their learning environment is more interactive and fun, which ultimately leads to more inquisitive learners with a better understanding of the content being delivered. For instructors, the findings highlight how student engagement can be enhanced using low-cost, creative approaches that entice students to participate and ultimately help students become more psychologically invested in their learning.



