

MPharm Interim Visit

University of Portsmouth

March 2015

Master of Pharmacy degree course (MPharm) interim visit

University of Portsmouth

Report of an interim visit, 27March 2015

Introduction

The General Pharmaceutical Council (GPhC) is the statutory regulator for pharmacists and pharmacy technicians and is the accrediting body for pharmacy education in Great Britain. The GPhC is responsible for setting standards and approving education and training courses which form part of the pathway towards registration for pharmacists. The UK qualification required as part of the pathway to registration as a pharmacist is a GPhC-accredited Master of Pharmacy degree course (MPharm). The GPhC's right to check the standards of pharmacy qualifications leading to annotation and registration as a pharmacist is the *Pharmacy Order 2010*.

The Pharmacy Order 2010 requires that the 'nature, content and quality' of education and training provision is reported to the GPhC by its accreditation panel. As such the GPhC has incorporated interim visits within its accreditation methodology to provide suitable opportunities for the accreditation panel to review MPharm course provision in this way. The GPhC carried out a series of pilot interim visits in the early part of the 2013-14 academic year to help inform the development of the structure and content of the interim visits to ensure that they would be fit for purpose. Five schools of pharmacy took part in the pilot phase.

The purpose of an interim visit is to allow an accreditation team to:

- Monitor progress of delivery of the accredited MPharm degree since the accreditation or reaccreditation to the *GPhC Standards for initial education and training of pharmacists*.
- Evaluate a selection of the educational activities on the accredited course in conjunction with information provided at the main accreditation visit. The accreditation team will wish to satisfy itself of the quality, particularly of the practice opportunities available, and to ensure that they continue to meet the *GPhC Standards for initial education and training of pharmacists*. In particular, the accreditation team will be evaluating how well the accredited MPharm degree meets standard 5.6, which states:
The MPharm/OSPAP curriculum must include practical experience of working with patients, carers and other healthcare professionals. We are not suggesting that off-site placement visits are the only way to achieve this. Schools should articulate their strategy for meeting this criterion, which may include off-site placement visits, using patients, carers and other healthcare professionals' in-class, and simulation.
- Evaluate these practice activities in relation to the student's ability to demonstrate the relevant outcomes in Standard 10.

Interim visits take place three years after a main successful accreditation or reaccreditation visit and the report of the visit forms an appendix to the main accreditation report. Prior to the visit, a School is provided with the document 'MPharm degree interim visits: guidance for providers' and asked to submit the necessary documentation and to describe, and give dates for, a range of student activities that will be taking place both on-site at the university as well as off-site. The visit date is selected so that there are suitable opportunities for the accreditation team to observe activities that had been timetabled to take place that day, without the need to make special arrangements. Prior to the visit, a number of satellite visits are arranged to allow one or more members of the accreditation team to observe the off-site activities. Findings from the satellite visit, as well as information and observations gleaned on the day of the visit, help to inform the accreditation team's overall view on developments since the last visit as well as the quality of education and training being delivered.

This document summarises the visit activities and accreditation team's conclusions following the interim visit to the School of Pharmacy at the University of Portsmouth.

Background

The MPharm (Hons) degree is offered by the University of Portsmouth School of Pharmacy and Biomedical Science (the School). The MPharm was last reaccredited by the GPhC in March 2012, receiving a full 6 year accreditation with one condition and one recommendation.

The condition was:

- To meet the requirements of Standard 3, criterion 3.2 in Future Pharmacists, all staff contributing to the MPharm degree must be trained in equality and diversity and in accordance with 3.5 in Standard 3, this must include updating as necessary. This is to support the requirement for initial pharmacy education to be based on the principles of equality, diversity and fairness. A policy and strategy must be in place to achieve this by 1st September 2012 and the strategy must be implemented from the 2012-2013 academic year.

The recommendation was:

- The School considers revising its MPharm Academic Regulations to be explicit that the requirements of criterion 5.9 in Standard 5 of Future Pharmacists are met. The GPhC must be informed of the outcome of the School's decision but will not seek to influence it. The deadline for being informed is 1st September 2012.

Both the condition and recommendation have been met.

In line with the new accreditation methodology, an interim visit was arranged for 27 March 2015 and the following is a record of that visit.

Prior to the interim visit the University submitted documentation to the GPhC and a pre-visit meeting took place by teleconference on 4 March 2015. The purpose of a pre-visit meeting is to help the School of Pharmacy to prepare for the visit, allow for the GPhC and School to ask any questions or seek clarification, and to finalise arrangements for the visit.

Satellite visit

In advance of the interim visit, three satellite visits took place on 10 and 11 February and 9 March 2015, to allow team members to observe off-site activities in advance of the main visit.

The interim visit

The interim visit itself took place on site at the University of Portsmouth on 26-27 March 2015. The event began with a private meeting of the accreditation team and GPhC representatives on 26 March 2015. The remainder of the event took place on site at the University of Portsmouth on 27 March 2015, and comprised a series of meetings with staff and students of the university, along with observations of a number of teaching and learning activities.

Meeting number	Meeting	Time
	Day 1 - 26 March 2015	
1.	Private meeting of accreditation team and GPhC representatives	17:00 – 18:30
	Day 2 –27 March 2015	
2.	Presentation by the University of Portsmouth MPharm staff team on progress to date and meeting with senior staff	08:45 – 09:45
3.	Groups of accreditation team and GPhC representatives observed activities which ran concurrently: Activity 1 –Science into Practice: Medicines, Patients and Public Health (Workshop -Year 2)	10:00 – 12:00
4.	Activity 2 – Demonstration of e-learning technology	
5.	Private meeting of accreditation team and GPhC representatives including working lunch	12:00 – 12:30
6.	Meeting with students	12:30 – 14:00
7.	Groups of accreditation team and GPhC representatives observed activities which ran concurrently: Activity 3 – Poster presentations: Pharmacology and Therapeutics 4 (Workshop -Year 4)	14:00 – 15:00
8.	Activity 4 –Parasites PBL: Immunology and Microbiology in Health and Disease (Workshop -Year 2)	
9.	Private meeting of accreditation team and GPhC representatives	15:00 – 16:45
10.	Feedback to University of Portsmouth MPharm staff team	16:45 – 17:15

Accreditation team

The GPhC's accreditation team ('the team') comprised:

Name	Designation at the time of accreditation event	Meetings attended
Mrs Barbara Wensworth*	(Team leader) Previous hospital Pharmacist, Freelance Consultant Pharmacist, Lecturer, External Verifier, assessor and writer	1, 2, 4, 5, 6, 9, 10
Professor Brenda Costall	(Team member – Academic) Professor of Neuropharmacology; former Head of School of Pharmacy University of Bradford	1, 2, 3, 5, 6, 7, 9, 10
Dr Geoffrey Hall	(Team member – Academic) Associate Head, Leicester School of Pharmacy, De Montfort University	1, 2, 3, 4, 5, 6, 8, 9, 10
Professor Barrie Kellam	(Team member – Academic) Professor of Medicinal Chemistry, University of Nottingham	1, 2, 3, 5, 6, 7, 9, 10
Mr Mike Pettit	(Team member – Pharmacist) Lead Pharmacist for Women’s and Children’s Division, Brighton and Sussex University Hospitals NHS Trust, Royal Sussex County Hospital	1, 2, 4, 5, 6, 8, 9, 10
Mr Javaad Ayub	(Team member – Pharmacist recently registered) Medical Affairs Manager, Guerbet Laboratories, Solihull	2, 3, 5, 6, 7, 9, 10
Professor Angela Alexander	(Team member – Academic) Professor of Pharmacy Education and Director of the Centre for Inter-Professional Postgraduate Education and Training, University of Reading	Satellite visit only

along with:

Name	Designation at the time of visit	Meetings attended
Ms Joanne Martin *	Quality Assurance Manager, General Pharmaceutical Council	1, 2, 4, 5, 6, 9, 10
Miss Jenny Clapham	Rapporteur, Quality Assurance Officer, General Pharmaceutical Council	1, 2, 4, 5, 6, 7, 9, 10

*attended pre-visit, 4 March 2015

Course provider

Representatives of the University of Portsmouth MPharm degree.

The team met with the following:

Name	Designation at the time of accreditation event	Meetings attended
Dr Stephen Arkle*	Head of School	2, 10
Dr Adrian Hunt*	Deputy Head of School	2, 10
Mr Mike Leech	Senior Lecturer and Teaching and Learning Co-ordinator	2, 3, 4, 10
Dr Michael Norris	Divisional Head – Pharmaceutical Sciences	2, 8, 10
Professor Jane Portlock*	Divisional Head – Pharmacy Practice	2, 4, 7, 10
Dr Asmita Sautreau*	Course Leader for MPharm	2, 10
Mr Nick Warren	Senior Lecturer	2, 4, 7, 10
Mr Christopher Robinson*	School Administrator	Pre-visit only

*attended pre-visit, 4 March 2015

In addition, the accreditation team met with a group 21 students, comprising 6 x Year 1, 5 x Year 2, 5 x Year 3 and 5 x Year 4 students.

The visit

In meeting 2, a presentation by senior members of staff built on the information provided in the submission and gave an update on progress since the last visit in 2012. The presentation provided an overview of the programme and covered changes made since the 2012 reaccreditation, and addressed a number of themes related to the programme as detailed below.

Points raised in the presentation, as well as other matters, were discussed with the staff (meeting 2) and with students (meeting 6) and the following narrative incorporates those discussions.

1. Overview of the MPharm degree and progress to date

The accreditation team asked the staff team (meeting 2) and the students (meeting 6) for an overview of the new course provision and how it was progressing. The staff team confirmed that students were performing well and coping with the new integrated approach. Feedback suggested students were encountering fewer difficulties than they had been doing on the old programme especially in relation to year 3. The students were enthusiastic about the programme and described the new course as being more clinical and modern with opportunities to put their learning into practice.

The MPharm has undergone a review by the Faculty Curriculum Approval Committee (January 2012) and a periodic review (March 2014). The former resulted in two conditions relating to assessment which were quickly resolved and there were no conditions from the periodic review. The School described a numbers of areas where developments had been made including the following:

i. Equality and diversity training:

All academic and support staff with substantial input into the MPharm are now required to undertake a full-day or online training session with attendance monitoring in place. A staff survey has shown the training to be effective with almost all the staff team having completed this training. They are now aware of their responsibilities in relation to equality and diversity.

ii. Ethnicity and performance:

The School reported on the findings of research they had commissioned into ethnicity and performance which found that students with intrinsic motivations performed better than those whose motivations were extrinsic. Twice as many BME students reported external pressure on their motivation which could contribute to their lower performance. It was also remarked that the statistics on ethnicity and performance showed that BME students on the MPharm do marginally worse but the difference is smaller than the national averages.

iii. Diagnostic testing:

Since the last accreditation, the School has introduced diagnostic testing for mathematics, chemistry, biology, spelling, grammar and punctuation. Results are shared with the student and their tutor, students lacking the required level of competence in maths, biology or chemistry are given additional tutorials for support and performance is reviewed each year as part of the student's personal development plan (PDP).

iv. Admissions policy:

The accreditation team asked how the admissions policy had evolved over the past two years and was told that there were two main routes of entry, the first being A-level students or graduates and the second being mature students with differing qualifications and experience. The admissions process covered an examination of knowledge and ability via grades achieved and motivational factors through a group discussion. Offers would be made on the basis of all elements with a degree of flexibility should grades not be attained. A third route into the programme was through transfers from other degrees and the School reported that these were mainly internal although external transfers would be accepted. Internal transfer students tend to perform in the top half of the cohort. However, external transfers had been more problematic leading to an increase in the grade requirements for these students. The School emphasised the role of open days for informing students of course requirements and a large number of staff would therefore be in attendance.

v. Performance on registration assessment:

The School implemented an action plan designed to improve their students' performance in the registration assessment. The plan focused on helping students to get a good pre-reg placement through supporting CV development and practising interview skills, the introduction of School-led study week ends for pre-reg alumni, making revision support available via the School's virtual learning environment, and preparation of students for the new style registration assessment that will commence in 2016. The introduction of the personal formulary had also helped.

2. Integrated curriculum

In meeting 2, the staff team described the spiral integrated curriculum for the MPharm degree as containing four strands that feature across all four years of the programme with increasing integration as the course progresses. The four strands are *Pharmacy Practice, Pharmaceutical Chemistry and Pharmaceutics, Pharmacology and Therapeutics, and Skills Development (for example, CPD-PDP, Careers and Pre-reg Preparation)*. The teaching team within the School are cross-disciplinary and work closely together. The full course team meet annually and there are regular unit teaching meetings as well as other informal meetings between

science and practice staff. The pharmacy practice units cover what is taught in the other units and there is strong signposting and contextualisation of the interrelationships between science and practice. Research exercises, condition summaries, clinical management frameworks and therapeutic frameworks were cited as examples of student work which supported integration. The notion of integration is also embedded for the students from their very first week. The staff team confirmed that the new course was more fully integrated than the previous MPharm and that students had responded well and enjoyed seeing how the units link together. Students in meeting 6 confirmed that the integration of the course helped to consolidate their learning and gave examples of the placements and the Antimicrobial Chemotherapy unit as encouraging integration. The science into practice workshops were reported as being difficult but worthwhile in applying learning in a clinical setting. The students agreed that integration became clear from year 3 onwards and that years 1 and 2 were less so. Students from years 1 and 2 cited little or no integration, but the students from years 3 and 4 argued that on reflection, there is integration in the earlier years of the programme but it doesn't become clear until year 3. It will therefore be a recommendation of this visit that the university should review the curriculum and assessment in the early years of the course to clearly show the students where the integration lies (**see recommendation 1**).

3. Inter-professional education (IPE)

The School explained that their IPE strategy had changed due to the discontinuation of their contract with Southampton University Health Innovation Unit (HIU). Previously students attended IPE placements across multiple sites in Hampshire and beyond, but the NHS funding which underpinned this agreement had recently been withdrawn as it was deemed unsustainable. When the team asked what would be replacing this, the School described their plans for IPE within the MPharm. In year 1, students learn about the other healthcare professions in pharmacist-only sessions. Year 2 involves team working with other health and social care students to research and present on multi-disciplinary issues. For year 3, the School plans to develop a medicines safety conference with pharmacy technicians at Highbury College. In year 4, the aim is for students to work with social work students on drug misuse and harm reduction. The School also hopes to introduce an IPE conference with Southampton University. The team was disappointed to learn that only the year 1 and year 2 sessions had so far been introduced and that the other elements were still in development. The team further noted that the Year 1 activities were paper-based and did not involve any actual contact with other professions and that the proposed Year 3 activity was intra-professional rather than inter-professional.

The team asked about the opportunities for students to work alongside medical students and was told that this was difficult as the University of Portsmouth doesn't have a medical school. Options were being explored with other SoPs and the accreditation team suggested encouraging IPE with medical students during the hospital placements. Whilst the Pharmacy Practice staff team were keen to host IPE sessions within the new clinical skills suites, this was not currently happening and the accreditation team did not receive adequate assurance of the School's plans to introduce these sessions. The team further explored this issue with the students in meeting 6 and found that those who had been involved in the Southampton IPE placements reported significant benefits from working alongside a range of other healthcare professionals from the outset of the programme. Other opportunities were reported to be limited and the students described the sessions they had attended as requiring better organisation with consistent marking across the different disciplines to ensure equal contribution from all students. The students felt strongly that IPE was beneficial to their learning and that the course needed more of it and they also recognised that other professionals often lacked awareness of the full scope of the pharmacist's role and that IPE would help to address this. The accreditation team therefore concluded that current students on the MPharm had very limited opportunities for IPE within the programme provision and that it would be a condition of this visit that the School articulate their strategy for Inter-Professional Education (**see condition 1**).

4. Public and patient involvement (PPI)

The School gave an update on their progress with Patient and Public Involvement (PPI) and reported having consulted a healthcare user group prior to 2012 but found this of limited use as the group lacked knowledge of the pharmacist role. There are plans for a further consultation in 2015/16 and links will be made with Healthwatch Portsmouth but the School confirmed that their PPI strategy was still in development. The team asked how much involvement students have with patients and was told that the first years meet with patients from Diabetes UK in Year 1 and there are plans to set up a similar relationship with Parkinson's UK. This was further explored with students in meeting 6 who explained that apart from the Diabetes patients in Year 1, the only direct patient contact was gained out on placement (see commentary under *Clinical simulation and placements* below). They further confirmed that in addition to the timetabled placements, students were encouraged to obtain a summer placement and that this was key to gaining experience with patients. However, not all students were able to work over the summer due to other commitments and limited availability of suitable placements. The team was concerned that students were not receiving equal exposure to patients and that the School should not rely on voluntary summer placements to gain this vital experience. The students described many simulated encounters such as use of the Avatar software, SIM-Man technology and lecturers acting as patients for consultations and for their OSCEs. The students valued these simulations for building their confidence before encountering real patients but agreed that it was important to experience the 'real thing'. The students were also aware that compared with their other healthcare colleagues, they were receiving much less patient contact and therefore felt less equipped for their future roles in this regard. The team were concerned that there had been little progress on PPI since the accreditation event in 2012 and it would be a condition of this visit that the School articulate their strategy for Patient and Public Involvement (see **condition 1**).

5. Clinical simulation and placements

In meeting 2, the School described the clinical simulation and placement opportunities for MPharm students. It was stressed that simulation was not a substitute for placements and confirmed that provision for both had increased over the past two years. Simulation was important for preparing students for placements and for developing skills in a 'safe' environment, thus overcoming transition shock. The School also told the team that considerable effort had been made to ensure that their simulation suites replicated real ward environments in terms of both design/layout and atmosphere, for example, having telephones ringing to replicate noise levels. The School also described the quality assurance processes for placements which involved conducting a gap analysis, the findings of which will be acted upon for the 2015-16 placements. The School also told the team about their plans to develop a Teaching Healthy Living Pharmacy subject to a successful funding bid (note: the GPhC has subsequently been informed that this bid was successful). The Healthy Living Pharmacy would immerse students in community pharmacy practice and would allow them the opportunity to conduct consultations with patients under supervision. The team welcomed this addition to the current placement portfolio. The students in meeting 6 reported that in Year 1 they attended a half-day observational visit at Boots or a full-day at Rowlands and this was supplemented by summer placements for those who could secure them. Year 2 attended a one-day hospital visit which acted more as an orientation session than providing hands-on experience. The students agreed that more placements in Years 1 and 2 would be beneficial. In Year 3, students went on a one-week community placement and spent 4 days over a two-week period on a hospital placement. They were satisfied with this level of provision and saw the value in being able to experience both community and hospital environments to help them choose their preferred career path. However, Year 3 was deemed rather late to be focussing on these choices for the first time. Students felt well-prepared for their placements through their learning at the university and their exposure to simulated activities.

6. Assessment

The team was given an overview of the changes that the School had implemented with regard to assessment. There are plans to adjust the balance between individual and group assessment with 26% of the final year grades relying on group work, but with each individual's contribution being taken into account and their marks adjusted accordingly. The School had also acted on a recommendation from the 2012 accreditation and raised the threshold for referral from 35% to 40% and introduced red flags into the assessments. As a result, they have seen a larger number of referrals but this has not had a significant impact on overall progression. The team enquired about the assessment strategy and was told that the School did not have an overarching strategy but instead was required to meet the University's Key Performance Indicators. The team agreed that the programme would benefit from a written strategy and recommend that the School devise a clear assessment strategy for the MPharm programme and ensure this is disseminated to staff and students (**see recommendation 2**). The students were asked about assessments and told the team that they were given formative tests throughout the year and that summative assessment included end of year exams (incorporating extended multiple choice questions in order to prepare them for the changes to the registration assessment), OSCEs, end of year projects, essays, reflective pieces and presentations. The students were dissatisfied with the mechanisms for peer assessment as the lack of anonymity meant they felt unable to give negative feedback for underperformance in group work. The team noted that students were not recognising their own professional responsibilities which could have implications for raising concerns in the future. Students were generally satisfied with the level and timeliness of feedback they received. The students confirmed that some of the assessment such as the presentations encouraged links between science and practice but they were less clear of the integration for the Year 1 and 2 assessments. As stated in section 1 above, it will therefore be a recommendation of this visit that the university should review the curriculum and assessment in the early years of the course to clearly show the students where the integration lies (**see recommendation 1**).

7. Other matters discussed with staff and students

i. Learning resources and systems for student support:

The staff team described the improvements that had been made since the 2012 accreditation to address students' concerns regarding the accessibility of resources. These included investment in e-books, longer library opening hours and a £3 million refurbishment of the library facilities to increase capacity and provide additional computers. Improvements have also been made to the IT facilities including improved wifi access (increased bandwidth, installation of more access points and wider coverage across campus). Smart phone apps have been developed and printing facilities have been enhanced through use of a swipe card rather than queuing system. The students in Meeting 6 confirmed that they were satisfied with the ranges of resources available to them in terms of both library and IT facilities and clinical resources. The National Student Survey highlighted issues with timetabling but the students confirmed that the university had been quick to respond to this and that timetabling issues had now been resolved. The team further explored the mechanisms for student feedback and was told that the SSCC gave an effective voice to students and was used as a forum to consult them over proposed changes. Students also felt well supported with the student mentoring system being especially helpful. Feedback on the personal tutor system was mixed and was dependent on the specific tutor with some students having difficulties accessing tutor support due to limited availability.

ii. Professionalism:

The team was interested to learn about the ways in which the programme instilled professionalism in students in order to prepare them for their future careers. The staff team described the introduction of PDPs for years 1 to 3 but admitted that student engagement had been variable. The students in meeting 6 confirmed that they were taught what is expected of a healthcare professional and were acquiring the skills necessary for a career as a pharmacist and not just to pass the exams. The students reported a focus on ethical dilemmas in the course provision and confirmed that the university was adopting a

values-based admissions system in order to attract candidates with the right attitude. Students were also encouraged to engage in reflective practices and this was both taught and assessed within the programme. The students in attendance at meeting 6 were articulate and confident and demonstrated a professional attitude towards their study and their future careers. The team noted that greater levels of IPE would enhance opportunities for instilling professionalism in students.

iii. Staff research and workload:

In meeting 2 the team was told that many of the staff on the MPharm degree are research active and that the School is in the top third of the Schools of Pharmacy in relation to their REF profile. The teaching on the programme is informed by research and this was confirmed by the students who described staff as passionate about their research topics. The students also described the teaching of research skills within the programme as preparing them well for carrying out their own research. There is no university wide system of workload modelling, instead staff workloads are discussed and agreed at divisional level and are reviewed through staff PDRs. The staff team are rated the second happiest in the UK and it was confirmed during meeting 2 that the staff workloads were manageable.

8. Observation of student activities:

In addition to a satellite visits (10 and 11 February and 9 March 2015), during the interim visit itself, various members of the team observed a number of activities, some of which ran concurrently. The date of the interim visit was selected to coincide with timetabled activities which would best demonstrate a range of sessions/activities and allow the accreditation team to review examples of student learning experiences and how the MPharm course had progressed. The students (meeting 6) confirmed that the day of the visit was a typical working day. Between these activities, the team members convened a number of private meetings to share their observations. The team also took this time to review the additional documentation that had been provided by the School for review. These activities are summarised below and further detail of each is provided in Appendix 1.

Satellite visit 1: Third year hospital placements, Royal Hampshire County Hospital (Year 3)

This comprised one of the four hospital placement days for year 3 students during which students work in small groups or pairs to gain experience in medical admissions, medicines information, surgery speciality, dispensary, oncology and medical speciality. Students have the opportunity to review patients' medical notes and treatment under the supervision of a pharmacist and observe the interactions of the pharmacist with the medical and nursing teams. Learning plans are provided for all placements and students are required to complete a hospital placement portfolio including a log of activity and reflective account. On the day of the visit, 12 students were on site and the sessions observed showed students were very engaged and had a clear understanding of the activities and how they were integrated to consolidate prior learning. Students received constructive feedback and active encouragement from the pharmacists and any errors in interpretation were corrected and explained. Students were knowledgeable for their level of study and were observed to be fully contributing and asking appropriate questions. The students demonstrated insight and evidence of reflective practices that would equip them for their future careers as pharmacists. The placement and activities observed were deemed to meet the relevant outcomes of Standard 10.

Satellite visit 2: Third year hospital placements, Royal Hampshire County Hospital (Year 3)

A second placement day was observed by another member of the accreditation team. The session was well organised and overseen by a teacher practitioner based at the hospital. There was considerable commitment and effort from the NHS partner to ensure students gained experience in the same key processes. There was good evidence of integration between theory and practice and the sessions were linked to prior learning at the university. Students engaged well with the sessions, asked appropriate questions and showed clear enthusiasm for the activities. The experiences enabled students to meet the relevant outcomes of Standard 10 and provided students with knowledge of information sources that would be useful for their ongoing studies.

Satellite visit 3: Formative Practical Skills Assessment (PSA)(Year 2)

The purpose of this Year 2 formative assessment is to provide students with feedback before they undertake their summative assessment. There are two sessions, each lasting 80 minutes. In the first session, students have to complete seven workstations on accuracy checking, medicines reconciliation, BNF information retrieval, clinical problem solving, drug profiling and clinical case study. The second is a dispensing assessment where students have 80 minutes to assess and/or dispense four prescriptions and provide advice/counselling to a member of staff about a specific problem with one of the prescriptions. Red flags are used and failure to identify a red flag meant students were awarded a zero mark. Students were able to use their Drug Profiles which outline the top 24 drugs used during the second year. As this was an assessment, the accreditation team member was unable to establish the level of student engagement or the students' understanding of how the session linked to other aspects of the programme. The activity was deemed to relate to the relevant outcomes of Standard 10.

Activity 1: Science into Practice: Medicines, Patients and Public Health (Workshop -Year 2)

In this workshop, teams of 5+ students were given a case study and assigned to one of four workstations covering: pathophysiology, epidemiology and pharmacology; formulation and drug delivery; patient counselling and medicines optimisation; and patient monitoring. Each station was supervised by appropriate staff members. Staff expertise was drawn from different disciplines within the MPharm programme. A range of resources was available for students including expert staff members, paper copy and internet access to information resources, medicines or devices and product information. Each team was required to research and produce a 20-minute PowerPoint presentation covering their allocated subject followed by a discussion of their findings. Attending staff provided formative assessment and feedback was given on delivery, organisation and structure, subject specific content and team working. The session demonstrated good integration of science and practice with clear reference to previous learning and future work, in particular the hospital placements. However, the format of the workshop was time intensive and somewhat repetitive, particularly for teaching staff. The students worked well in their teams to research and prepare their presentations. Students appeared engaged and the presentations observed were delivered in a highly professional manner demonstrating confidence and knowledge. The session helped to develop research and presentation skills and contributed to the achievement of the relevant learning outcomes in Standard 10. Summative assessment of the outcomes will be made through an OSCE and exam.

Activity 2 – Demonstration of e-learning technology

The accreditation team was given a tour of a healthcare simulation suite together with a demonstration of the e-learning technology used for the teaching of clinical skills. The suite comprised a simulated ward environment with two SimMan patient manikins that can be programmed to present symptoms, respond to stimuli and mimic certain pathologies. The mannequins can mimic both normal and abnormal conditions to enable students to recognise symptoms and diagnose conditions. Manual and automatic sphygmomanometers, ear, eye and pulse simulation equipment and a range of diagnostic aids were also available. This technology is used to provide a highly realistic yet controlled environment for student learning. The aim of the simulation technology was to acclimatise

students to the hospital ward environment and facilitate the transition to real world experiences. The staff described the simulation activities that students would encounter as they progress through the four years of the programme, each year building on the acquired knowledge and skills. Year 1 students use the equipment to develop basic diagnostic skills such as taking a pulse and listening to a heart rate. Year 2 students proceed to use and interpretation of patient notes and lab results which are presented and manipulated by use of iPad technology. By Year 3 students have learnt the basics of differential diagnosis, are able to review dosages, manage comorbidities, confirm a diagnosis, and advise on the desired and adverse effects of drugs. By Year 4, students are able to diagnose and come up with a holistic management plan. The team was also given a demonstration of the Avatar software which provides computer simulated scenarios where students must ask questions and reach decisions on diagnosis or referral. Immediate feedback is given on both correct and incorrect responses to facilitate learning. The software is currently in use for Years 2 and 3 and the University has secured funding for it to be enhanced for use with Year 4 students. The clinical skills teaching staff were very enthusiastic and knowledgeable and will be attending Osceology courses in summer 2015 to further develop their knowledge and skills. Student feedback on the use of the technology and clinical skills teaching has been positive. The simulation suite is shared with paramedics but sessions are run on a single disciplinary basis with no inter-professional learning. The University has invested in the expansion of their simulation suites with the new facilities increasing the opportunities for larger groups and multidisciplinary sessions.

Activity 3 – Poster presentations: Pharmacology and Therapeutics 4 (Workshop -Year 4)

Students had been working in small groups to research a specific cancer and produce a poster presentation. This session constituted the summative assessment of the poster presentations in which the students were required to present their findings and answer questions. Students were also expected to undertake a personal reflection on their performance in this exercise, which was assessed as part of the oral defence of the poster. Peer assessment was used by students to rate colleague performance and contribution. The poster presentations covered the aetiology of the cancers, available treatments and side effects, and the implications for life expectancy and quality of life. The verbal presentations incorporated different styles of presenting and disseminating the findings including a mock TV news programme and the production of an awareness-building leaflet. All students were enthusiastic and fully engaged and demonstrated a good grasp of the disease, its aetiology and treatment regimens. The work presented was inter-disciplinary and encouraged teamwork and the session was deemed to achieve the relevant outcomes of standard 10.

Activity 4 – Parasites PBL: Immunology and Microbiology in Health and Disease (Workshop -Year 2)

This session was co-taught by a microbiologist and a pharmacist and began with a presentation on the treatment of head lice. Students then worked in groups of 6 to 8 to research the questions set by the tutors before participating in a class discussion. The tutors encouraged evidence-based research and used the discussions to explore additional points and correct misconceptions. The students were engaged and participated well in the group and class discussion. Students were encouraged to consider patient acceptability of treatments and whilst the session clearly demonstrated integration between science and practice, the team noted that stronger links to the science behind the treatments would have been beneficial. The learning observed contributed to the achievement of outcomes 10.2.1h, 10.2.2a and 10.2.2c in Standard 10.

Conclusions

The accreditation team advised the School that the team's conclusions from this visit were based on both what team members had been told, what they had observed, and documents they had read, over the course of the on-site visit and the satellite visits. Looking at the progress that has been made since the last visit, the principal observation is that the team is confident that the GPhC's initial education and training standards will be met, subject to one condition and two recommendations:

The condition is:

1. You must articulate a strategy for Inter-Professional Education and Patients and Public Engagement. This is to meet criterion 5.6. You must submit this strategy to the GPhC for review and approval.

The recommendations are:

1. You should review the curriculum and assessment in the early years of the course to clearly show the students where the integration lies. This relates to criterion 5.1
2. You should devise a clear assessment strategy for the MPharm programme and ensure this is disseminated to staff and students. This relates to criterion 5.7

The recommendations must be addressed and conditions met before the 2015/16 intake of new MPharm students.

Feedback on individual standards:

- i. Interim visits cover selected topics and not all standards are discussed. We did not discuss standards 1, 2, 3 and 9
- ii. The range of activities observed has given the team an insight into opportunities available to Portsmouth students to develop their skills.
- iii. The science into practice workshop shows how the students develop team working skills arranged around appropriate patient centred activities. It was the staff team's enthusiasm that motivated the students as they too were enthusiastic and fully engaged.
- iv. Activities observed during the visit showed how students develop a range of skills around problem solving, organisation and communication. The poster presentation showed how the students can clearly understand sophisticated science related to clinical outcomes.
- v. The team members welcomed the opportunity to observe students on hospital placements and thought the range of activities the students undertook was appropriately challenging for this stage in their development.
- vi. The team had an opportunity to have some hands on experience of the clinical skills suite and observe the avatars. The team thought these tools are invaluable in developing both clinical and diagnostic skills in students. They welcomed the refurbishment of the simulation suite as this will provide opportunities to increase the scope of this particular learning tool. The staff should be commended on how they bring alive the future potential of pharmacists in engaging the students.

- vii. The team recognised that there are clear signs of integration in year 3 and 4 and this was confirmed by the students but it was less evident in years 1 and 2 where the integration lies. Therefore the team recommend you review the curriculum and assessment in the early years of the course to clearly show the students where the integration lies **(see recommendation 1)**.
- viii. In 2012 the team highlighted that not all staff were aware of the assessment strategy and advised you to make all staff aware of this. The team heard on this visit that there was not an MPharm assessment strategy but a number of KPIs that have to be achieved. The team's view is that the students will meet the outcomes of standard 10 but recommend you devise a clear assessment strategy **(see recommendation 2)**.
- ix. With regard to the inter-professional education the team heard that the Southampton initiative had now ended. In 2012 the visiting team highlighted that this was a good initiative but was concerned about the sustainability of this activity after the funding arrangements came to an end. The team heard of the plans for new IPE activities but there is lack of clarity around the detail. The students confirmed how much they would value more of this experience in helping them understand working with other professionals. Therefore it is a condition of this interim visit to articulate a strategy for Inter-Professional Education **(see condition 1)**.
- x. With regard to patient engagement, the team view the current consistent opportunities to encounter patients is minimal other than encountering them on placements. The students confirmed how much they would appreciate more experience with patients as they value the session with the people with diabetes. They explained that if they did not encounter patients on vacation experience, then they would not be confident when dealing with patients. Therefore it is a condition of this interim visit to articulate a strategy for Patients and Public Engagement**(see condition 1)**.

Finally, it was a pleasure to meet with your students who came across as intelligent, articulate and mature in their engagement with the team. They clearly appreciate the support they receive from the staff at Portsmouth who are enthusiastic and act as good role models.

Following the above interim visit, the Registrar of the General Pharmaceutical Council agreed with the accreditation team's recommendation that a condition be imposed. The recommendations must be addressed and conditions met before the 2015/16 intake of new MPharm students.

Appendix 1 – Activities observed by the Accreditation team

Satellite visit 1 and 2: Third year hospital placements, Royal Hampshire County Hospital

Session aim

To provide the students with an opportunity to investigate the delivery of pharmaceutical care in a secondary care setting.

Session objectives

- Describe the various roles of pharmacists, other members of the pharmacy team and all other healthcare professionals in a hospital setting.
- List the different types and importance of interventions that pharmacy staff can make in various clinical settings.
- Describe the types of patient and medication encountered throughout the hospital.
- Describe the journey of patients through hospital and specific pharmacy inputs throughout.
- To gain an insight into pharmacy technical services.

How the activity links to other learning activities (Including horizontal and vertical integration)

- Year three hospital placements build on the hospital visits, which have taken place in year 2 (within the Medicines, Patients and Public Health unit) and have already introduced the students to the hospital environment and roles of the pharmacy team.
- During the year three placements, students have the opportunity to see the prescribing for a range of clinical conditions and the pharmacists' roles in monitoring, making prescription interventions and providing evidence-based advice linked to the pharmacology and therapeutics units which from year 2 (Respiratory, Renal and Cardiovascular Pharmacology and Therapeutics, Neuroendocrine and GI Pharmacology and Therapeutics, Immunology and Microbiology in Health and Disease).
- In addition, subjects taken from the Antibacterial Chemotherapy unit in year three are applied in the hospital settings through focus on infection control and evidence-based use and monitoring of antibiotics.
- Components from the unit Pharmaceutical Formulation and Quality Assurance are observed within technical services.
- CPD and reflective writing are supported through the Level 6 personal tutorial programme.
- The placements help the students understand how important each of the components of the Therapeutic Framework (In year four, Medicines Management in Practice) are in ensuring that pharmacists provide optimum pharmaceutical care in the hospital setting.

How the activity is assessed

The hospital placements provide opportunities for the students to see pharmacists and other members of the team at work, meet patients and review prescribing, all aspects of the pharmacy role. In addition, they are able to work in teams on pharmaceutical care problems and real patient cases to apply their theoretical knowledge to practice. The summative assessment for the placements is a portfolio, which contains a SWOT analysis before and after the placements, CPD records (evidence of reflection, identification and meeting of learning, evaluation and identification of further CPD needs), a diary and checklist of activities to observe or participate plus a reflective essay (2000 words in total) and feedback to the unit leaders on the overall usefulness of the placement plus detailed feedback on all activities.

Relevant standard 10 outcomes:

- 10.1.a. *Recognise ethical dilemmas and respond in accordance with relevant codes of conduct and behaviour (SHOWS HOW).*
- 10.1.d. *Apply the principles of clinical governance in practice (KNOWS HOW).*
- 10.1.h. *Engage in multidisciplinary team working (KNOWS HOW).*
- 10.2.1.d. *Apply knowledge of current pharmacy-related policy to improve health outcomes (KNOWS HOW).*
- 10.2.1.e. *Collaborate with patients, the public and other healthcare professionals to improve patient outcomes (KNOWS HOW).*
- 10.2.1.h. *Provide evidence-based medicines information. SHOWS HOW).*
- 10.2.5.b. *Reflect on personal and professional practice to identify learning needs (DOES).*
- 10.2.5.c. *Create and implement a personal and professional development plan (DOES).*
- 10.2.5.d. *Review and reflect on evidence to monitor performance and revise professional development plan (DOES).*
- 10.2.5.f. *Contribute to identifying learning and development needs of team members (KNOWS HOW).*
- 10.2.5.g. *Contribute to the development of individuals and teams (KNOWS HOW).*

Satellite visit 3: Formative Practical Skills Assessment (PSA)

Session aim

To provide the students with an opportunity to practice practical pharmacy skills in a formative setting, with formative feedback, before the summative assessment at the end of the second year.

Session objectives

- Identify and demonstrate competence in the key activities undertaken by pharmacists when interacting with individual patients and understand the legal, clinical and ethical principles underpinning such activities.
- Identify and employ an appropriate range of information sources to optimise drug therapy in individual patients.
- Demonstrate an appreciation of the importance of drug interactions and adverse drug reaction.
- Demonstrate an understanding of the complexities of therapeutics and an ability to solve therapeutic problems in individual patients.

How the activity links to other learning activities (Including horizontal and vertical integration)

- This formative assessment consolidates the learning from year 2 Medicines, Patients and Public Health and builds on the learning in the year one unit Introduction to Pharmacy Practice. The summative assessment is identical in structure.
- Learning is linked horizontally with Drug Development and Formulation, which includes inhalers and other formulations relevant to the clinical conditions being studied in the two pharmacology units (Neuroscience, Endocrine and Gastrointestinal Pharmacology, and Respiratory, Renal and Cardiovascular Pharmacology).
- This assessment provides an opportunity to apply knowledge from other units in year 1 and at this stage to the concept of patient care and tests the application of the pharmacology and pharmaceuticals to monitoring, clinical checking and prescription interventions and dispensing skills.

- Students prepare individual condition summaries in the pharmacology units, which include, for a range of conditions, definitions, aetiology and pathology, prevalence, common signs and symptoms, classes of drugs and pharmacology, current recommended treatment. These are then used to help the students prepare for the Practical Skills Assessments.
- Year three builds on the pharmacy practice skills taught and assessed in year two. Expectations are higher as the students progress onto demonstrating competence in the delivery of pharmaceutical services in primary and secondary care within the unit Delivering Pharmaceutical Care to Patients and tackle more complex clinical problem solving and communication with patients.

How the activity is assessed

The Practical Skills Assessments are formative; students receive individual feedback on the workstations and group feedback on overall performance with areas for development and recognition of good practice.

Relevant standard 10 outcomes:

10.2.1.b. Access and critically evaluate evidence to support the safe, rational and cost- effective use of medicines. (KNOWS HOW at stage 2).

10.2.1.c. Use the evidence-base to review current practice (KNOWS HOW).

10.2.1.h. Provide evidence- based medicines information. (SHOWS HOW)

10.2.2.d. Analyse prescriptions for validity and clarity (SHOWS HOW).

10.2.2.j. Supply medicines safely and efficiently, consistently within legal requirements and best professional practice (SHOWS HOW).

10.2.3.g. Distribute medicines safely, legally and effectively (KNOWS HOW).

Activity 1: Science into Practice: Medicines, Patients and Public Health (Workshop -Year 2)

Session aim

To reinforce an understanding of how knowledge of scientific principles underpins the clinical use of medicines.

Session objectives

- Explain the pharmacological basis for use.
- Describe formulation rationale and available delivery devices.
- Understand the scientific basis for medicines choice in asthma.
- Demonstrate an awareness of current available guidelines on asthma management.
- Understand the principles of care for an asthma patient and the pharmacist's role in medicines optimisation.

How the activity links to other learning activities (Including horizontal and vertical integration)

- This workshop is jointly run by academic staff from all three of the divisions involved with delivery of the MPharm (Pharmacy Practice, Pharmacology and Pharmaceutical Sciences).

- It is a formative workshop towards the end of the second year of the MPharm programme and draws together the learning and teaching in the following units in year 2: Drug development and formulation, Respiratory, renal and cardiovascular pharmacology and therapeutics.
- In particular the workshop helps the students to think about integration of their understanding when preparing for Clinical Management Frameworks in year 3 (within the unit Delivering Pharmaceutical Care to Patients) and Therapeutics Frameworks, which are assessed in year 4 (within the unit Medicines Management in Practice).
- Students are introduced to Science into Practice with an induction week workshop in year 1, which looks at use of inhaled devices and the chemistry, pharmacology and medicines optimisation aspects of respiratory drugs. A similar Science into Practice workshop is run in year 3, which covers pain management using the same approach.

How the activity is assessed

The presentations and student-led discussion are formatively assessed by attending academic staff. Feedback is provided on content and links between the subjects covered in the workstations. The workshop prepares the students to think in an integrated way, when they are assessed using Practical Skills Assessments in year 3. The summative assessments are as follows: Practical Skills Assessment (formerly called OSCEs – 2 hours dispensing and PSA workstations) and End of Unit Exam (unseen, 2 Hours).

Relevant standard 10 outcomes:

- 10.2.1.b. *Access and critically evaluate evidence to support the safe, rational and cost- effective use of medicines. (KNOWS HOW at stage 2)*
- 10.2.1.c. *Use the evidence base to review current practice (KNOWS HOW).*
- 10.2.1.h. *Provide evidence- based medicines information. (SHOWS HOW).*
- 10.2.2.a. *Identify and employ appropriate diagnostic or physiological testing techniques in order to promote health. (KNOWS HOW)*
- 10.2.2.c. *Instruct patients in the safe and effective use of their medicines and devices. (KNOWS HOW at stage 2)*
- 10.2.2.j. *Supply medicines safely and efficiently, consistently within legal requirements and best professional practice (SHOWS HOW).*
- 10.2.3.b. *Apply pharmaceutical principles to the formulation, preparation and packaging of products. (KNOWS HOW at stage 2).*
- 10.2.3.f. *Procure and store medicines and other pharmaceutical products working within a quality assurance framework (KNOWS HOW).*
- 10.2.3.g. *Distribute medicines safely, legally and effectively (KNOWS HOW).*

Activity 2 – Demonstration of e-learning technology

No further information was provided as this was a demonstration for the benefit of the accreditation team and not a student session.

Activity 3 – Poster presentations: Pharmacology and Therapeutics 4 (Workshop -Year 4)

Session aim

Students are required, in small groups, to research a specific cancer and present their findings as a poster presentation on which they are expected to answer questions. Students are also expected to undertake a personal reflection on their performance in this exercise, which is assessed as part of the oral defence of the poster. In

addition, students use a peer assessment scoring form to rate their colleagues within the group on attendance/punctuality, involvement in task planning, completion of agreed work, team/group working and contribution to the final task.

Session objectives

- Summarise and assess the terminology, methodology, and rationales associated with a range of neoplastic diseases.
- Evaluate critically the evidence base for therapeutic utility, risks and limitations associated with the major groups of anticancer chemotherapeutic agents currently in use.
- Critically discuss the potential role(s) of the pharmacist as a member of the multidisciplinary cancer care team.
- Collect and evaluate evidence to assess the pharmacist's contribution to solving problems presented by individual cancer patients, in the overall context of a patient-focussed, care plan for the multidisciplinary team.

How the activity links to other learning activities (Including horizontal and vertical integration)

- This summative assessment allows the students to demonstrate that they can find and interpret information on the pharmacology and therapeutics, delivery of medicines, medicines optimisation and the role of the multidisciplinary team.
- It builds on the chemistry of synthetic and naturally occurring drugs, which are explored in year 3 (Unit: Bioactives Natural and Synthetic).
- In addition, Delivering Pharmaceutical Care to Patients in Year 3 provides the background in pharmacoeconomic analysis, development of guidelines and formularies necessary for the students to be able to review the chemotherapy regimens, which they are describing within this coursework.
- Structure and function of molecules, modes of action and formulation sciences are explored for the chemotherapeutic agents, based on the learning gained from earlier units in the degree such as the earlier Pharmaceutical Formulation and Quality Assurance in year 3 and the three pharmacology units in year 2.

How the activity is assessed

This is a summative piece of coursework, which requires the students to research a specific cancer and to present their findings as a poster presentation.

Relevant standard 10 outcomes:

- 10.1.e. *Demonstrate how the science of pharmacy is applied in the design and development of medicines and devices (SHOWS HOW).*
- 10.1.f. *Contribute to the education and training of other members of the team, including peer review and assessment (SHOWS HOW).*
- 10.1.g. *Contribute to the development of other members of the team through coaching and feedback (KNOWS HOW).*
- 10.2.1.d. *Apply knowledge of current pharmacy-related policy to improve health outcomes (KNOWS HOW).*
- 10.2.1.h. *Provide evidence-based medicines information (SHOWS HOW).*
- 10.2.2.b. *Identify inappropriate health behaviours and recommend suitable approaches to interventions (SHOWS HOW).*
- 10.2.4.c. *Identify the appropriate diagnostic or physiological testing techniques to inform clinical decision making (SHOWS HOW).*
- 10.2.5.g. *Contribute to the development and support of individuals and teams (KNOWS HOW).*
- 10.2.5.h. *Anticipate and lead change (KNOWS HOW).*

Activity 4 – Parasites PBL: Immunology and Microbiology in Health and Disease (Workshop -Year 2)

No further information was provided. This activity was arranged post-submission to ensure that the accreditation team saw a broad spectrum of student activities during the interim visit.