MPharm Interim Visit

University of East Anglia

February 2015

Master of Pharmacy degree course (MPharm) interim visit

University of East Anglia

Report of an interim visit, 12 February 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 East Anglia.

Background

The University of East Anglia (UEA) has had a School of Pharmacy since 2003 offering an MPharm. The UEA MPharm was last re-accredited by the GPhC in June 2012, receiving a full 6 year accreditation with no conditions or recommendations, but with a 3-year interim practice visit. Accordingly, an interim visit was arranged for February 13 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 at the University of East Anglia on 23 January 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 one satellite visit took place on February 4 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 East Anglia on 12 February 2015. The event began with a private meeting of the accreditation team and GPhC representatives on 11 February 2015. The remainder of the event took place on site at the University of East Anglia on 12 February 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 February 11 2015	
1.	Private meeting of accreditation team and GPhC representatives	15:00 – 18:00
	Day 2 February 11 2015	
2.	Presentation by the University of East Anglia MPharm staff team on progress to date and meeting with senior staff	07:45 – 08:45
3.	Groups of accreditation team and GPhC representatives observed activities which ran concurrently: Activity 1 - Veterinary Medicines Workshop (year 3) Activity 2 – Formulation of Creams, Ointments and Liquids (year 1)	09:00 – 11:00
4.	Activity 3 – Clinical Checks (year 3)	11:00 – 12:00
5.	Private meeting of accreditation team and GPhC representatives	12:00 – 12:30
6.	Meeting with students	12:30 – 14:00
7.	Private meeting of accreditation team and GPhC representatives	14:00 – 15:00
8.	Activity 4 – Medicines Use Reviews Workshop (year 3)	15:00 – 15:30
9.	Private meeting of accreditation team and GPhC representatives	15:30 – 16:30
10.	Feedback to University of East Anglia MPharm staff team	16:30 – 17:00

Accreditation team

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

Name	Designation at the time of accreditation event
Professor Stephen Denyer	(Team Leader) Pro Vice-Chancellor (Learning and Teaching), University of Brighton
Professor Brenda Costall	(Team member – Academic), Professor of Neuropharmacology; former Head of School of Pharmacy University of Bradford
Professor Paul Gard	(Team member – Academic), Interim Head of School of Pharmacy, University of Brighton
Dr Andrew Husband	(Team member – Academic), Dean of Pharmacy, Durham University
Ms Sabina Khanom	(Team member – Pharmacist), Patient Safety Lead (Primary Care), NHS England
Mrs Gail Fleming	(Team member – Pharmacist), Head of Pharmacy, Health Education

	Kent Surrey Sussex
Mr Javaad Ayub	(Team member Pharmacist recently registered), Medical Affairs Manager, Guerbet Laboratories, Solihull
Professor Dorothy Whittington	(Team member – Lay member), Emeritus Professor of Health Psychology, University of Ulster and Non-executive Director. Northern Health and Social Care Trust (Northern Ireland)

along with:

Name	Designation at the time of visit
Ms Joanne Martin *	Quality Assurance Manager, General Pharmaceutical Council
Professor Brian Furman	Rapporteur, Emeritus Professor of Pharmacology, University of Strathclyde
Mrs Gail Holmes	Observer, Manager Pharmacy programme, Bradford College

*attended pre-visit, 23 January 2015

Course provider

Representatives of the University of East Anglia MPharm degree. The team met with the following:

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Name	Designation at the time of accreditation event	Meetings attended
Searcey, Professor Mark *	Head of School	2
Wright, Professor David *	Deputy Head of School	2
Desborough, Dr James	Director of Learning and Teaching/ Head of Pharmacy practice teaching	2
Mueller, Dr Anja	Deputy Director of Learning and Teaching/Year 3 lead/Head of Pharmacology Teaching	2
Morris, Dr Chris	Drug Delivery teaching representative	2

*attended pre-visit, 23 January 2015

In addition, the accreditation team met with a group 19 students, comprising a mix of students from each year; because of learning commitments, various students left and arrived at different times during the session.

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. As described below, this provided an overview of the programme and covered changes made since the 2012 reaccreditation, changes to staffing, as well as aspects of patient facing activities and inter-professional learning. 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 presentation described the MPharm as a research led, enquiry-based learning programme, with a focus on skills development and delivered by cutting edge experts. Employability was key and this was facilitated by the students' development of a professional portfolio, which, together with extensive practical application of knowledge, produced reflective practitioners capable of application of knowledge to the care of patients. The programme employs creative learning and assessment methods, including mind maps (using Prezi software), team-based and problem-based learning approaches, and, in the final year, professional decision making and the development of a pharmacy business plan; these approaches are intended to accommodate different learning styles.

   The structure of the MPharm remains broadly as described in 2012, with the first two years focusing on fundamental pharmaceutical science, along with pharmacy practice modules that develop understanding of the law, allow the acquisition of pharmacy practice and patient-facing skills and encourage students to engage in reflective personal development. Integration in the first two years is achieved through the arrangement of teaching, problem-based learning, and the pharmacy practice modules where students must integrate their knowledge in, for example, patient counselling. Throughout each year of the course, students must learn 25 top drugs, building to more than 100 by the end of year 4; these drugs are distributed as cards that carry fundamental chemical, pharmaceutical and therapeutic information about each drug. In each year, these drugs are used by staff members as examples to illustrate their teaching, as well as in assessments, hence facilitating integration. The students (meeting 6) confirmed the use of the top drugs, informing the team of their use as a focus for learning, for example, in problem-based learning sessions and stating that the knowledge of these drugs was required for examinations, requiring students to learn about them throughout the year; the top drugs were referred to in lectures and cross referred, for example, when talking about oncology in one lecture and anti-emetics in another. In year 1, these drugs were the subject of directed study, followed by workshops and tests. The students acknowledged that the top drugs did not make much sense in year 1, where they found them difficult to learn and understand, but made progressively more sense in later years as more material was covered. However, even in year 1 the provision of these drug cards was useful in the context of seeing the drugs in practice when they went out on placement; in year 2, they were tested on the drugs as one of the placement tasks. The students told the team that the top drugs were reviewed each year, with the list being modified for subsequent years.

   The presentation (meeting 2) described how integration at the multi- and inter-disciplinary levels is achieved in years 3 and 4 of the programme, where the focus is on clinically based topics centred on various disease states and the evidence base for treatments, and where there is extensive use of problem-based and team-based learning activities; there is one significant team-based learning session in each year 3 module. Years 3 and 4 also retain separate pharmacy-practice modules that focus on skills development and patient-facing applications. The documentation stated that further integration in year 3 has been achieved by incorporating material from the previous 'Advanced Drug Design and Delivery' module into the three clinical therapeutics modules, which are further integrated

with the year 3 pharmacy practice module, where there is a particular focus on patient centred consultations. The senior staff clarified (meeting 2) that all material in the final year was delivered at level 7. Noting the School's approach to integration, along with a comment from an external examiner about modular integration, the team asked what had been learned about progressive integration and the use of integrated assessments. The staff (meeting 2) stated that it was important to build the fundamentals in early years. The management structures ensure that staff members know what each module is trying to achieve and how this links to other modules; the example was provided of health promotion taught in practice but with cross reference to the relevant physiology and pharmacology. In meeting 6, first year students confirmed that lecturers cross-refer to other material, explaining to them where they will use what they are currently learning. Modules are interlinked and many topics are taught across modules, the students giving the example of DNA, which was covered concurrently in chemistry and biology modules; this made the course more focussed and more interesting, as well as encouraging learning. Second year students illustrated vertical integration, giving the team the example of second year pharmacokinetics, where they were referred back to first year learning; they also illustrated horizontal integration, referring to the need to use chemistry knowledge in addressing a pharmacology question. The team was told (meeting 2) that, rather than working in silos, staff members now work in teaching teams, formed in response to the external examiner's comment; team members meet frequently and regularly and work together to write questions that capture all aspects of the curriculum. As described in the presentation, the main integration was in years 3 and 4, where the focus is on synthesis and evaluation, but with some integration at lower levels where students acquire knowledge and understanding. This was reiterated by third year students (meeting 6) who told the team that the first two years focused on science and that the integration was less clear in these years, although the first two years provided a solid foundation for integration; everything came together in year 3, where the training has a clinical emphasis. Fourth year students (meeting 6) referred to the clinical therapeutics modules, which were very integrated, building on material from earlier years and in which the teacher-practitioners provided practical examples. Overall, the students were clear about integration, talking about both horizontal and vertical integration, and describing how throughout the course there was reference to the same drugs in different modules, and how later in the course they were able to relate to material taught in earlier years. By the final year, they were confident in their basic knowledge, allowing them to focus on clinical aspects. When asked specifically if they knew how the science that they had learned related to pharmacy practice activities, the students told the team that they had to apply all of their basic chemistry and biology knowledge; the students gave the example of how this was applied in understanding the mechanism of action of anticancer drugs through a solid foundation in the chemistry of the molecules.

In meeting 2, the team was told that the assessment strategy is such that assessments build in complexity across all years. The staff acknowledged that there is still work to do in this area, although the movement is in the right direction. In meeting 6, the students confirmed that assessments are integrated, using a mixture of material from all modules, so that it is not possible to learn selectively. When asked how they were assessed and about the number and range of assessments, the students (meeting 6) told the team that they were subject to constant assessment with 3-4 course tests in each module and a test in January. The number of laboratory reports, which had previously been very large, with inadequate and late feedback, had been reduced in year 2 following action through the staff-student liaison committee, with a formative report in semester 1, followed by summative reports in semester 2. Students were also now required to take an online test comprising MCQs which were very hard and which contributed 15% to each laboratory report; they were not allowed to re-sit the test but failure resulted in a reduction of the mark awarded for the laboratory class. Laboratory notes were handed in at the end of each laboratory class; the notes had to include explanations of what had taken place in the class, with help from lecturers if the explanation was incorrect. Feedback on assessments was provided as general feedback on each question to the whole class, although individual feedback with explanations for poor marks could be obtained if sought from particular lecturers by making appointments through e-mail contact; the level of feedback provided appeared to vary among staff members. Feedback was also provided on summative assessments and the students reported that they had received feedback on their January examinations. In response to the team's

enquiry about the use of peer assessment, the students (meeting 6) said that there was an element of this in all group work associated with team-based and problem-based learning, as well as for group laboratory reports, where peer assessment marks provided a multiplier for the overall mark. The students regarded this as helpful if students were not contributing adequately to the team effort and stated that students were called in for discussions with the staff if they had been awarded poor marks by their peers. There are guidelines for peer-assessment in team-based-learning which is peer-marked as satisfactory/unsatisfactory. For problem-based learning, where the peer-assessment contributes 20% to the overall mark, there is a marking sheet with grade descriptors and criteria. The students were aware of the potential for bias in marking peers, but found that students were fair and provided good, constructive criticism.

In response to the team's enquiry about how assessments of competency demonstrate safe practice, the staff (meeting 2) explained that this is achieved through the OSCEs, where the stations are clear and written by groups of staff members, who run through and validate the material for each station. A member of staff undertakes the assessment at each station against clear criteria and there is video-recording of each student at each station. The performance at each station is scrutinised and if analysis identifies a station in which the performance is different, the staff looks at the video-recordings from that station. The final year OSCEs consider the competencies of consultation, communication and counselling, including responding to symptoms. There is a move to slightly more subjective assessment and away-days will ensure that all staff members agree on the standards and criteria. The team was told of research into the development of OSCEs. The students told the team about the use of mock, formative OSCEs, with feedback being provided before taking the summative assessment; feedback was also provided if the whole group had performed badly in one component of the OSCE.

The team was told (meeting 2) that students found the programme to be intense and challenging. While in years 1 and 2, they find it challenging to see how the various components fit together, it all makes sense by the end. Year 3 is working very well, with students really engaging with the course and producing some excellent work, such as posters on infectious diseases. When asked what feedback has been gained from students and how this had been used, the staff (meeting 2) explained that feedback is obtained for every module and that this feedback includes comments on individual members of staff. Much feedback is informal and students are not afraid to speak their minds. When asked how informal feedback is collated systematically, the staff told the team that this was achieved through a team approach and regular meetings of year leads, who transmit the information to the teaching committee. The staff-student liaison committee has an important role and no fundamental problems have been reported in relation to the new course, with only minor issues having been raised. There has been feedback on team-based learning, which has been challenging for the students, although generally it has been viewed positively, with students enjoying the preparation and sharing this with colleagues. In meeting 6, the students confirmed the effectiveness of the staff-student liaison committee, which was responsive to feedback obtained from students; information for the staff-student liaison committee was achieved using Facebook.

2. *Further changes to the programme since the 2012 reaccreditation event*

   i.   *OSCEs*: Previously, the first time the students encountered an OSCE was in year 4. To support students for this, a stand-alone OSCE assessment has been introduced in pharmacy practice modules from year 2; students must pass this OSCE to progress. This addresses consultation, counselling and drug-history taking skills, which were previously only addressed in the year 4 OSCE.

   ii. *Oral viva assessments*: Oral viva assessments, each lasting 15 minutes, have been introduced to determine student engagement and understanding of the CPD process via their portfolios. These enable members of staff to provide more immediate, one-to-one feedback on the portfolios, which should include evidence for the development of two skills in each year; these skills are chosen by the students. Although the viva assessment does not constitute a

requirement for progression, the mark for the viva contributes to the assessment of the portfolio. Staff training is provided for the delivery of the viva, in order to ensure consistency. In meeting 6, the students told the team that these oral viva assessment were very good, with students being marked on their portfolios, which included team-based learning and oral presentations, where students were required to provide evidence for their skills development. In the second year, students were not marked on individual elements of the portfolio, but were required to be familiar with these for the viva. When asked how they were introduced to reflective learning, the students told the team how in pharmacy practice they were required to reflect on their competencies and identify areas for improvement, such as the collection of more suitable evidence, as part of the reflective CPD cycle. They were supported in their reflective learning through online feedback and lectures where needed. The students were also required to write a 1000 word reflective essay on their inter-professional learning activities.

iii.   *Changes to year 2*: Changes have been made to year 2, which students find more difficult. There is now a greater emphasis on feedback. The burden of laboratory report writing has been reduced, so that laboratory classes in the module 'Drug Design and Mechanisms of Drug Action' are now assessed by laboratory notes, with only one formative and one summative formal laboratory report submitted to develop scientific writing skills. There is also a multiple choice question assessment before each practical session, which increases student engagement with the class. Data recording is emphasised, which provides good preparation for the final year project. Noting the reduction in the number of practical laboratory reports required to be written, the team asked if other ways would be used to ensure that students would learn how to write scientifically. The staff (meeting 2) emphasised that this reduction had taken place in one module and that laboratory reports are still required in other modules; for example, 4-5 full reports are written in year 1 and 3-4 in year 2. The number of summative reports had been reduced with an increase in the number of formative assessments.

iv.   *Final year projects*: The documentation stated that the final year project has been moved from semester 2 to semester 1, so that students can concentrate on mainstream pharmacy in the lead up to their final examinations. This was undertaken in response to student feedback.

3.   **Changes to staffing since the last reaccreditation**
The documentation and the presentation described the loss of some senior members of staff since 2012. The student/staff ratio is currently 17 against a University of East Anglia target of 13.5. However, two appointments have been made in the drug delivery area and two new pharmacology lecturers will take up their posts in April 2015. A lecturer in health services research has been advertised. The School of Pharmacy has recently been awarded the pre-registration pharmacist and pharmacy technician training contracts for the whole of the East of England; this will allow the appointment of 3.2 FTE senior lecturer teaching positions from August 2015. Noting the recent staff changes, the team asked how recently appointed members of staff were introduced to new teaching methods and was told that there is a comprehensive, in-house induction; this included understanding pharmacy as a profession and the GPhC standards. New members of staff are supported and undergo peer observation of their teaching. The senior staff (meeting 2) explained that new teaching approaches are being introduced progressively and the course is still in a development phase. Sessions on teaching methods are held for all members of staff and there are also conferences that can be attended by the staff; there are local champions for new teaching methods. The evaluation of new teaching methods, which results in their refinement, is the subject of ongoing research undertaken by ATS staff. New staff members are given 2-3 years to establish themselves and gain familiarity with teaching methods before being given a full teaching load and there is a supportive process, so that, for example, members of staff will spend time as deputy module coordinators before being asked to coordinate a module themselves. Those who are not pharmacists go out with teacher-practitioners to observe pharmacy practice. Younger members of staff engage well with the all of these processes. When asked how the staff copes with the situation in which

established expertise in an area such as pharmacology has been lost and the replacement staff members do not have a full teaching load, the senior staff explained that others pick up the load while the new members of staff are developing; there are always sufficient staff members to back-fill the teaching without incurring too much extra work. Similarly, in response to the team's enquiry about how the School will be managed as new staff members grow into their roles, the staff explained that every member of staff has an administrative role and these roles increase as they move up through the ranks and take on more responsibility; once members of staff are established with a full role, they will be given senior administrative responsibilities with appropriate training. The staff acknowledged that there is a promotion bottleneck with a large number of senior lecturers and such individuals will be encouraged to apply for more senior posts.

4. *Patient-facing activities, including placements*
There are placements throughout the course. In the first year they are mostly observational but progress through the years to the application of consultation skills and care planning, as well as responding to symptoms. Optional placements in different settings are available to students; these include care homes and befriending services. In terms of encountering patients, first year students are required to consult friends and family about their medicines and in later years undertake service evaluation, discussing with patient groups their perceptions of community pharmacy services. Simulated patients are also used in years 3 and 4; these are experienced actors who provided good feedback on students' interactions with patients, including their communication skills. The team was told that staff members, rather than simulated patients, are used in OSCEs, because the financial costs of using actors are prohibitive. When asked how students encounter a sufficiently broad range of patients, the staff (meeting 2) explained that this is achieved through the range of placements in different locations. Steps are taken to ensure that students will work in a location different from that in which they had previous experience. The team enquired how the practice activities create a meaningful experience for students and help them to make links with learning in the university. In meeting 2, the staff explained that, in relation to hospital placements, the teacher practitioners have a joint role; for example, a staff member who teaches drug history taking in the university will supervise that activity during the placements. Moreover, placement hosts come into the university to assist with the development of key skills. The cards relating to the top drugs are provided to the placement hosts, who are asked to test the students on these drugs. The team was told that placement hosts from community pharmacy are required to attend training sessions at the university. The students (meeting 6) told the team that they were introduced to communication and counselling in year 1 through lectures and scenarios focused on how to put these skills into practice and with skills being practised on actors posing as patients. They learned that talking to patients is difficult and that patients wish to know what is best for their health. The team was told that many students undertake voluntary work in pharmacies where they can apply their theoretical knowledge in dealing with patients and acquire confidence. They experience patient-contact through patients being brought into the university, as well as through placements, starting in year 1 with a half day spent in each of community and hospital pharmacy. Placements are structured and students are guided in what they should be able to do. In year 2, placements build on the first year experience, with students spending a full day in community pharmacy looking at dispensing, as well as undertaking an inter-professional learning placement which provides preparation for inter-professional learning activities. There were two industrial placements in year 2 (Baxter Healthcare; Addenbrooke's Hospital) and students also spent time in hospital working with older patients. In year 3, there were two half days of hospital placements which students felt inadequate and the team was told by year 4 students that much additional voluntary work is undertaken in hospitals over summer vacations to compensate for the lack of formal patient contact. Although they became more confident in successive years, the lack of patient experience relative to medical students was obvious, the latter appearing much more confident and natural in dealing with patients. The team received a strong message from students that they wanted more patient contact; the students felt that time spent in role-plays would be better spent seeing patients.

5. *Inter-professional learning (IPL)*
   The team was told (meeting 2) that the university covers nine different health and social care professionals and also has a Centre for Inter-professional Practice that coordinates inter-professional learning. IPL involving pharmacy students addresses team working and the roles of different healthcare professionals in year 1. Year 2 considers collaborative roles in the healthcare team and also service users' experiences, where students shadow another healthcare professional and bring back their experiences for discussion. In year 3, there is an IPL conference with service users. In years 3 and 4, there are joint OSCEs involving medical and pharmacy students. Year 4 includes a formative, six-station OSCE, in which medical and pharmacy students, working in pairs, are faced with various situations in which they are required to solve problems. In response to the team's enquiry about how the IPL strategy is maturing, the staff (meeting 2) explained that this was still developing, including the use of the joint OSCEs. The Centre for Inter-professional Practice is responsive to student feedback which had been positive. The students (meeting 6) told the team about their inter-professional learning activities, which started in year 1 alongside students of nursing and medicine; here they worked in groups using a game as a basis for learning about each other's professions. This was followed in year 2 by two workshops again with nursing and medical students; during the first workshop students introduced themselves and were provided with a hospital-based scenario, from which, starting with the patient, they had to show how a collaborative healthcare team could work together to develop the care of the patient; they had to provide the rationale for their actions, recognising the responsibilities of all the professions involved. Because of their different commitments between the workshops, rather than meeting physically, student team members communicated with each other using the internet and social media (this activity was observed on a satellite visit; see below and appendix 1). The inter-professional learning activity in year 3 was with medical students, but was optional; the team was told that this was a very practical activity based on a real-life scenario, in which the medical student and the pharmacy student applied their different knowledge to a model patient, with the medical student assessing the patient, and the pharmacy student looking after the drugs, including drug interactions. This allowed students to acquire confidence. Again, inter-professional learning revealed the difference among pharmacy, medical and nursing students, where pharmacy students had much less experience of patients than the others. On the other hand, the team was given the example of a pharmacy student demonstrating superiority in the ability to perform calculations compared with a medical student during an inter-professional learning OSCE.

6. ***Other matters discussed with staff and students***

   i.   *Recruitment and selection:* In response to the team's wish to learn about the School's recruitment and selection process, the staff (meeting 3) explained that applicants having three B grades at A-level were invited to attend for an interview. These semi-structured interviews, which included a numeracy assessment, were intended partly as a selection tool but also for marketing. From next year, the School will use multiple mini-interviews which will incorporate a team working exercise but which will no longer include a numeracy assessment. The staff explained that the multiple mini-interviews would not incur a greater overall workload than the current system but the six-station, five minutes per station format would allow better quality control, and would still allow the testing of team-working abilities. The team was told that for overseas applicants, a structured telephone interview would be employed; this would incorporate NHS values and questions would be competency-based. Noting a poor performance in year 2 and external examiners' comments, the team asked if the School knew why this had happened and if the School had analysed progression data in relation to characteristics of those recruited, such as educational background, schools attended and ethnicity. The School acknowledged that analysis of these data would be useful but although extensive date were available, they had not yet been analysed to any great extent. Concerning the poor performance in year 2, the School had no explanation other than perhaps the workload but did not believe it was related to the students' abilities or due to mathematical ability; there a pass/fail numeracy assessment in each year. The team was told that the poor performance was not being repeated in the current second year.

ii. *Learning resources:* In response to wish to know about the range of resources available, the students (meeting 6) told the team that the library was very good, with access to most papers. The library stocked books to which students were directed by lecturers, although there was sometimes limited availability of these, especially around examination times, causing the students to resort to using online pdf files. Although students were shown how to use the library in years 1 and 2, and were taught how to undertake literature searches in year 3, they would like this to be taught earlier in the course and they needed more help in using online journals. Some lecturers recorded their lectures as screencasts, which the students found very helpful, as they could view them on their hand-held devices (i-Phones; tablets); international students found this especially useful. The students also found the Prezi mind-maps to be a very good resource, especially for understanding mechanisms. The team was told about the Virtual Dispensary, which provided an overview of all dispensing skills and the relevant knowledge, and which the students regarded as a very helpful resource that helped to compensate for the limited placement opportunities.

iii. *Professionalism:* The students (meeting 6) told the team that the programme was very effective in helping them develop as professionals and instilling professionalism, with professional skills being introduced early in the course; these included aspects such as professionalism in dress and in mind-set, knowing how to ask questions appropriately, how to take a medical history, and how to counsel patients. The portfolio played an important role, and required students to reflect on the evidence supporting their development as professionals.

iv. *Systems for student support:* In response to the team's wish to know about the personal tutor system and other support systems, the students explained that the personal advisers provided support. There were several meetings with advisers for both academic work and for personal advice. Help is available whenever it is required, although adviser availability is variable among staff members. Advisers are also effective in signposting students to the most appropriate place for support and advice.

7. **Observation of student activities:**

In addition to a satellite visit (February 4 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 - Inter-professional education session

This comprised an inter-professional learning (IPE) session involving second year pharmacy students working with medical and nursing students. The session focussed on roles and responsibilities of the different professions as part of the healthcare team, addressing the importance and problems of inter-professional team-working and demonstrating some key teamwork skills and behaviours that enhance care delivery. The session was very well facilitated by a member of staff from the School of Pharmacy plus an Educational Facilitator from the Faculty of Medicine, with a full contribution from an expert patient. The students clearly related to each other and demonstrated respect for each other's profession as well as a clear acknowledgement that the best patient care would result from the professions working as a team. All teams were very proactive, with each having a leader and individuals who spoke to different elements. The presentation sessions were highly interactive. The students peer assessed each other using a very clear template and excellent feedback was provided.

Activity 1: Workshop on veterinary medicines (Module PHA-3EAY- year 3)

This session addressed prescriptions for animals along with associated problems, and comprised a workshop in which students worked in groups of five; the facilitation was light touch and involved one member of staff and three teacher practitioners. The aims of the workshop were a) to describe the legal requirements that must be met to supply veterinary medicines b) produce labels for dispensed veterinary medicines and c) to complete the appropriate records for the supply of these medicines. Students were required to complete the assessments that were presented as templates. The electronic material was a good simulation of what was encountered in practice. The groups worked collaboratively and cohesively, sharing knowledge and it was evident that the drugs encountered had been referred to in previous modules. It was also clear that the students were used to working together in their groups, which were kept the same throughout the year.

Activity 2: Formulation workshop on creams and ointments and liquids (Module PHA-4002Y –year 1)

This workshop, staffed by one member of academic staff and four demonstrators for 40 students, was aimed at demonstrating competence in small-scale manufacturing of non-sterile liquid and semi-solid products suitable for administration to a patient. The students had to prepare a solution (ferrous sulphate paediatric), a lotion (calamine lotion) and a cream (aqueous cream). The session took place in a roomy laboratory containing plenty of equipment, although there was some queuing for balances. All weights and calculations were checked, with students working individually. The students appeared well-prepared and enthusiastic and there was much interaction between students and tutors.

Activity 3: Workshop on complex clinical checks (Module PHA-3EAY – year 3)

The aims of this session were to a) assess multi-item medicine requests for clinical appropriateness b) identify and make recommendations for the management of potential drug interactions c) calculate appropriate dosing of paediatric medicines and d) review drug charts, assess clinical data and formulate appropriate care plans. Again, the session was facilitated by one member of staff and three teacher practitioners, and help was on hand if a student was uncertain of any aspect. This workshop comprised a practical exercise in which students, working in groups, had to undertake a task at each of six work-stations (covering, respectively, hospital clinical drug charts, MDS clinical and accuracy checks, new medicines review, prescribing for children, a medicines Information query for older patients, and supplementary prescribing); 15 minutes were allowed at each station and the tasks (for example, addressing BTS guidelines to support prescribing; acting on a medicines information query) were of increasing complexity and challenging but pitched at the right level and the workshop would build confidence in arriving at solutions. There was a focus on the top 25 drugs and students articulated well what had been covered in lectures. The team learned that there was an informal assessment for this workshop which was logged and which was cumulative with assessments from other workshops to form the

assessment for the year; if students failed, they would be required to sit a formal examination. The group working appeared to be effective, although students in one group appeared to working as individuals, rather than as a team; there was a peer-marking system which was used effectively, with students being marked down if they did not make appropriate contributions. Psychometric testing was used at the beginning of each year as a basis for allocation of students to their groups and there was balanced gender mix. The team learned that the staff members discussed the workshop at the end of the day and at the end of the semester, with a view to making any necessary changes.

Activity 4: Workshop on Medicine Use Reviews (Module PHA-3EAY-year 3)
This workshop was aimed at a) revision of key components of the service specification of MURs b) completion of MUR documentation c) Identification of medicines use issues and producing an agreed action plan. The workshop was introduced by a short recap of the purpose and value of MURs and a video showing the start of an MUR. Students worked in groups of 10 to identify issues relating to drugs for cardiovascular patients and also considered drug interactions in small subgroups; they had recently dealt with the cardiovascular system. Groups worked independently on the tasks with only general guidance from the three facilitators, followed by a simulated MUR with the facilitators acting as the patients. This appeared to be successful, with students remembering relevant points from lectures on MURs. The workshop allowed the students to link the activity to previous sessions on consultation and communication skills and build on the skills already learned; in this context, the groups had to consider how they would counsel patients on drug interactions.

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 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. There are no additional conditions or recommendations as a result of this interim visit and the judgement made by the GPhC's visiting accreditation team in 2012 stands.

Feedback on individual standards
   i.   Interim visits cover selected topics and not all standards are discussed. Standards 1, 2, 3, 4, 8 and 9 were not discussed, other than discussion around student recruitment (standard 4) and succession planning (standard 9). The team had opportunity to observe a number of activities and to undertake a satellite on February 4 2015.
   ii.   Overall, the team was convinced that the course is appropriately integrated intellectually and that the staff team is integrated as well. The team agrees with the staff team's own evaluation in that there is greater integration from year 3 and 4; this was confirmed by the students. The team gained a very clear picture that the students value the level of integration and appreciate the approaches to this learning, and would encourage continued reflection on this as the programme develops. The team heard of the research and evaluation that is continually undertaken for certain teaching and assessment approaches e.g. OSCEs, and agreed that this is an example of good practice, which should be encouraged to continue.
   iii.   The team had opportunity to review the project profile portfolios and team members were struck by their high quality and comprehensiveness. From observations made both at the satellite visit and during the event, there is good evidence of student preparedness for the activities. The student groups were cohesive and worked collaboratively. The exercises were well-constructed and there was good interactions between students and staff.

iv. Another area that the team viewed as particularly strong was the responsiveness of the School to student feedback. The students articulated well how concerns or points raised were addressed in a timely manner.

v. There is a clear acceptance by the students of the role and value of peer assessment. The team was impressed with the level of engagement with peer assessment both during the activities observed and articulated by the students to the team, and the School should be confident that this has been fully embedded within the MPharm degree.

vi. All sessions observed met the objectives stated in the documents given to the visiting team and there is no evidence that standards 5 and 10 are not being met.

Points for further consideration/action

i. The visiting team heard from the senior team of plans to prepare staff members for senior management and corresponding succession planning. The team would encourage the School to continue with these plans going forward.

ii. The School should consider undertaking a comprehensive analysis of progression which draws on a broader understanding of the student cohort, for example, considering the admission profile as related to protected characteristics and educational background.

iii. The students had told the team that the current patient facing experience was insufficient and that it should be introduced earlier in the programme; this is considered important to the students, as it is an essential building block for developing confidence both in dealing with patients on placements and in their inter-professional education activities. The visiting team would encourage the School to explore ways in which this could be addressed.

iv. The students place considerable importance on their academic feedback and its timeliness, and this appears variable. The School should consider ways to address these issues.

Appendix 1 – Activities observed by the Accreditation team

Satellite visit:

This comprised an inter-professional education (IPE) session involving second year pharmacy students working with medical and nursing students in groups of around 7. There were 1-2 pharmacy students per group, along with 2 medical and 3 nursing students. The session focussed on roles and responsibilities of the different professions as part of the healthcare team, addressing the importance and problems of inter-professional team-working and demonstrating some key teamwork skills and behaviours that enhance care delivery. The workshop was the second IPE session experienced by this group and each group had to produce an interactive presentation either about ways of enhancing care pathways for patients, or about how to improve service delivery in cases where errors or near misses have occurred in patient care. The session was very well facilitated by a member of staff from Pharmacy plus an Educational Facilitator from the Faculty of Medicine, with a full contribution from an Expert Patient. The students clearly related to each other and demonstrated respect for each other's profession as well as a clear acknowledgement that the best patient care would result from the professions working as a team. This was exemplified by one group who based its presentation on a medical error resulting in a fatality and the lessons that were to be learned from that incident, for example, in the development of appropriate checklists. All teams were very proactive, with each having a leader and individuals who spoke to different elements. The presentation sessions were highly interactive. The students peer assessed each other using a very clear template and excellent feedback was given at was excellent. Students were required to produce a reflective essay on the session. The session met all of the intended learning outcomes and contributed to the requirements of IPL in Standard 10.

Relevant standard 10 outcomes:

10.1.f - Contribute to the education and training of other members of the team, including peer review and assessment (shows how)

10.1.h - Engage in multidisciplinary team working (knows how)

10.2.1.e - Collaborate with patients, the public and other healthcare professionals to improve patient outcomes (knows how)

10.2.3.n.- Identify, report and prevent errors and unsafe practice (shows how)

Activity 1: Workshop on veterinary medicines (Module PHA-3EAY- year 3)
Aims of the workshop
- To describe the legal requirements which must be met to supply POM V, POM VPS and medicines under the veterinary cascade
- To appropriately produce labels for medicines supplied under the veterinary cascade
- To make appropriate records for the supply of veterinary medicines

How the activity links to other learning activities (Including horizontal and vertical integration)
- Vertical: Integrated with PHA-4001Y and PHA-5002Y building on supply of medicines for human use
- Horizontal: Integrates within PHA-3EAY where supply of controlled drugs in relation to human use are introduced.

How the activity relates to outcomes in standard 10 and how it is assessed
This can be assessed in either the OSCE, in which students could receive a veterinary request and have to ensure that it was legally complete and/or make the appropriate records for supply. Normally, veterinary supply requirements are assessed in the written paper which may take the form of an MCQ or short answer question.

Relevant standard 10 outcomes:
10.2.2.d - Analyse prescriptions for validity and clarity (knows how)
10.2.2.i - Record, maintain and store patient data (knows how)
10.2.2.J - Supply medicines safely and efficiently, consistently within legal requirements and best professional practice (knows how)
10.2.3.d - Develop quality management systems including maintaining appropriate records (knows how)
10.2.3.n - Identify, report and prevent errors and unsafe practice (knows how)
10.2.3.o - Procure, store and dispense and supply veterinary medicines safely and legally (knows how)
10.2.5.a - Demonstrate the characteristics of a prospective professional pharmacist as set out in relevant codes of conduct (knows how)

Activity 2: Formulation workshop on creams and ointments and liquids (Module PHA-4002Y –year 1)
Aim of the workshop
- To demonstrate competence at manufacturing on a small scale non-sterile liquid and semi-solid products suitable for administration to a patient.

How the activity links to other learning activities (Including horizontal and vertical integration)
- Horizontal: Application of underpinning physical chemistry of solution formulations in PHA-4002. Integrates with the Life Sciences as well as a prelude to lectures on topical/transdermal formulations. Later in semester 2 this integrates with the Life Sciences Chemistry module for the understanding of drug and formulation chemical structure and behaviour. Integration with Cells & Life Processes module for the understanding of routes of drug delivery and biological barriers to drug absorption. It also integrates with the foundations in pharmacy practice extemporaneous dispensing, labelling and record keeping.
- Vertical: The laboratory classes serve as a foundation for the demonstration of understanding of formulation principles encountered in subsequent years in the clinical therapeutics modules. The demonstrated non-sterile formulations are contrasted with sterile products formulated in industrial pharmacy and observed during the visit to Baxter Healthcare. This knowledge is applied through the pharmacy practice stream to enable effective medicine counselling and support for patients using different medicine formulations

How the activity relates to outcomes in standard 10 and how it is assessed
This is assessed as a pass/fail assessment which must be passed to successfully pass this module.

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)

10.2.3.a - Ensure quality of ingredients to produce medicines and products (knows how)

10.2.3.b - Apply pharmaceutical principles to the formulation, preparation and packaging of products (shows how)

10.2.3.d - Develop quality management systems including maintaining appropriate records (knows how)

10.2.3.f - Procure and store medicine and other pharmaceutical products working within a quality assurance framework (knows how)

10.2.3.i - Manage resources in order to ensure work flow and minimise risk in the workplace (knows how)

10.2.3.j - Take responsibility for personal health and safety (does)

Activity 3: Workshop on complex clinical checks (Module PHA-3EAY – year 3)

Aims of the workshop

- To assess multi-item medicine requests for clinical appropriateness
- To identify and make recommendations for the management of potential drug interactions
- To calculate appropriate dosing of paediatric medicines
- To review drug charts, assess clinical data and formulate appropriate care plans

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

- Vertical: Integrated with PHA-4001Y and PHA-5002Y where students are expected to access single item supply requests and make recommendations for simple patients
- Horizontal: Integrated with the clinical therapeutics teaching stream and application of clinical knowledge of medicines and disease states

How the activity relates to outcomes in standard 10 and how it is assessed

This is assessed in the OSCE in which students will have to make an assessments of a drug chart and prescriptions for clinical appropriateness and completeness.

Relevant standard 10 outcomes:

This is assessed in the OSCE in which students will have to make an assessments of a drug chart and prescriptions for clinical appropriateness and completeness.

10.1.a - Recognise ethical dilemmas and respond in accordance with relevant code of conduct (knows how)

10.1.d - Apply the principles of clinical governance in practice (knows how)

10.2.1.b -Access and critically evaluate evidence to support safe, rationale and cost-effective use of medicines (knows how)

10.2.1.c - Use the evidence base to review current practice (knows how)

10.2.1.e - Collaborate with patients, the public and other healthcare professionals to improve patient outcomes (knows How)

10.2.2.d - Analyse prescriptions for validity and clarity (knows how)

10.2.2.e - Clinically evaluate the appropriateness of prescribed medicines (knows how)

10.2.2.f - Provide, monitor and modify prescribed treatment to maximise health outcomes (knows how)

10.2.2.h - Optimise treatment for individual patient needs in collaboration with prescriber (knows how)

10.2.3.c - Use pharmaceutical calculations to verify the safety of doses and administration rates (knows how)

10.2.3.n - Identify, report and prevent errors and unsafe practice (knows how)

10.2.4.h - Provide accurate written or oral information appropriate to the needs of the patient, the public or other healthcare professionals (knows how)

10.2.5.a - Demonstrate the characteristics of a prospective professional pharmacist as set out in relevant codes of conduct (knows how)

Activity 4: Workshop on Medicine Use Reviews (Module PHA-3EAY-year 3)

Aims of the workshop

- Revision of key components of the service specification of MURs
- Completion of MUR documentation
- Identification of medicines use issues and producing an agreed action plan

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

- Vertical: Integration with PHA-4001Y and PHA-5002Y where the community pharmacy contract and consultation skills are introduced. Linking to final assessment OSCE in year 4 in which communication skills are also assessed

- Horizontal: Integrated with PHA-3EEY (Evidence based care of cardiovascular and renal disease), also throughout clinical therapeutics stream through care planning in other year 3 modules

How the activity relates to outcomes in standard 10 and how it is assessed

Key skills from this workshop are assessed in the communication stations within the OSCE assessment. Legal and ethical components of this workshop may be explored in the written examination.

Relevant standard 10 outcomes:

10.1.a - Recognise ethical dilemmas and respond in accordance with relevant code of conduct (knows how)

10.1.d - Apply the principles of clinical governance in practice (knows how)

10.2.1.a - Promote healthy lifestyles by facilitating access to and understanding of health promotion information (knows how)

10.2.1.b Access and critically evaluate evidence to support safe, rational and cost-effective use of medicines (knows how)

10.2.1.c - Use the evidence base to review current practice (knows how)

10.2.1.e - Collaborate with patients, the public and other healthcare professionals to improve patient outcomes (knows how)

10.2.2.b - Identify inappropriate health behaviours and recommend suitable approaches to interventions (knows how)

10.2.2.c - Instruct patients on safe and appropriate use of their medicines and devices (knows how)

10.2.2.g - Communicate with patients about their prescribed treatment (knows how)

10.2.2.i - Record, maintain and store patient data (knows how)

10.2.3.d - Develop quality management systems including maintaining appropriate records (knows how)

10.2.4.a - Establish and maintain patient relationships while identifying patients' desired health outcomes and priorities (knows how)

10.2.4.b- Obtain relevant patient medical, social and family history (knows how)

10.2.4.d - Communicate information about available options in a way which promotes understanding (knows how)

10.2.4.e - Support the patient in choosing an option by listening and responding to their concerns and respecting their decisions (knows how)

10.2.4.f - Conclude consultation to ensure a satisfactory outcome (knows how)

10.2.4.g - Maintain accurate and comprehensive consultation records (knows how)

10.2.4.h- Provide accurate written or oral information appropriate to the needs of the patient, the public or other healthcare professionals (knows how)

10.2.5.a - Demonstrate the characteristics of a prospective professional pharmacist as set out in relevant codes of conduct (knows how)