

MPharm Interim Visit

Queen's University, Belfast

March 2015

Master of Pharmacy degree course (MPharm) interim visit

Queen's University, Belfast

Report of an interim visit, March 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 contained within 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 goes on to form 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 as being a day where 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.

In Northern Ireland, Master of Pharmacy degrees are jointly accredited by the General Pharmaceutical Council (GPhC) and the Pharmaceutical Society of Northern Ireland (PSNI). The PSNI is the regulatory body for pharmacists in Northern Ireland and has adopted the GPhC's accreditation criteria. Joint accreditation allows for graduating students to be eligible to use their qualification as the route to registration as a Pharmacist with both the GPhC and/or the PSNI, thus allowing them to work throughout the UK. Interim visits are carried out as a single event, attended by an accreditation team representing each regulatory body. A joint recommendation is reached at the end of the visit.

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

Background

The MPharm at the Queen's University Belfast is offered through the School of Pharmacy, which is one of four Schools in the Faculty of Medicine, Health and Life Sciences. A pharmacy degree has been offered at Queen's University Belfast since 1929, at that time through the Belfast College of Technology, moving in 1971 to the new Department of Pharmacy in Queen's University. The GPhC and PSNI jointly accredited the MPharm in 2012. The degree was accredited for six years and there was one recommendation:

- The community pharmacy experience as currently provided outside the quality management of the University is not acceptable as a placement or to meet the outcomes in Standard 10. Therefore the School should devise a strategy to develop community practice activities that increase year on year. This relates to criterion 5.6.

Prior to the interim visit the University submitted documentation to the GPhC and a pre-visit meeting took place by teleconference on 17 February 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 visits

In advance of the interim visit, three satellite visits took place to allow team members to observe off-site activities. The information from these visits helped to shape the team's overall conclusions.

Date	Activity and location	Time
8 December 2014	Inter-professional learning (IPL) session - numeracy, MG12/13, ground floor, School of Pharmacy (activity 1)	9am – 10am
8 December 2014	IPL session – Pharmacokinetics, N09/10, ground floor, School of Pharmacy (activity 2)	10am – 11am
8 December 2014	Pharmacy practice class 1, pharmacy practice unit, 2nd floor, School of Pharmacy (activity 3)	1:30pm – 5pm

The interim visit

Queen's University's interim visit took place on 6 March 2015. The visit included a series of meetings with staff and students, along with observations of a number of teaching and learning activities.

Activity	Time
1. Presentation by the Queen's University MPharm staff team on progress to date (activity 4)	8:15 – 9:15
2. Accreditation team and GPhC representatives split into groups and observed activities which ran concurrently:	9:15 – 12:30
3. Diabetes workshop – Clinical therapeutics (activity 5)	9:30 – 10:30
4. Objective Structured Clinical Examination (OSCE) – Clinical therapeutics (activity 6)	9:30 – 10:30
5. IPL session with nurses (activity 7)	10:00 – 12:30
6. Community pharmacy placement (activity 8)	10:00 – 12:30
7. Meeting with students (activity 9)	12:30 – 14:00
8. Consultation skills – pharmacy prescribing (activity 10)	14:00 – 15:30
9. Physical pharmaceuticals (activity 11)	14:00 – 15:30
10. Private meeting of accreditation team and GPhC representatives	15:30 – 16:00
11. Feedback to Queen's University MPharm staff team (activity 12)	16:00 – 16:30

Accreditation team

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

Name	Designation at the time of accreditation event	Meetings attended
Dr Andrew Husband*	Accreditation team leader, Dean of Pharmacy, Durham University	4, 6, 9, 11, 12
Professor Larry Gifford	Accreditation team member (Academic), Emeritus Professor , Keele University School of Pharmacy	4, 5, 9, 11, 12
Mrs Karen Pitchford	Accreditation team member (Academic), Principal Lecturer in Pharmacy Practice, Leicester School of Pharmacy De Montfort University	4, 6, 7, 9, 12
Professor Helen Howe	Accreditation team member (Pharmacist), Retired hospital Chief Pharmacist	4, 6, 7, 9, 10, 12
Mrs Linda Stewart	Accreditation team member (Pharmacist), Pharmaceutical Officer, Medicines Regulatory Group DHSSPS	1, 2, 3, 4, 5, 8, 9, 10, 12

along with:

Name	Designation at the time of visit	
Ms Joanne Martin *	Quality Assurance Manager, General Pharmaceutical Council	4, 7, 10, 12
Mr Paul Stern	Rapporteur, Policy Manager (Education), General Pharmaceutical Council	4, 7, 12
Mr Peter McKee	Observer, Pre-registration Lead, Pharmaceutical Society of Northern Ireland	4, 6, 8, 10, 12

*attended pre-visit teleconference, 17 February 2015

Course provider

Representatives of Queen's University, Belfast MPharm degree. The team met with the following:

Name	Designation at the time of accreditation event	Meeting attended
Professor David Woolfson	Head of School	4, 12
Professor David Jones	Pro-Vice Chancellor for Education and Students.	4, 12
Dr Sharon Haughey	Director of Education (MPharm)	4, 12
Dr Heather Anderson	School Manager	4, 12
Ms Johanne Barry	Lecturer (Education)	4, 12
Professor Ryan Donnelly	Chair in Pharmaceutical Technology	4, 12
Mrs Patricia Holden	Lecturer (Education)	4, 12
Professor Carmel Hughes	Chair in Primary Care Pharmacy	4, 12
Ms Roisin O'Hare	Teacher Practitioner	4, 12
Professor Tracy Robson	Chair in Experimental Therapeutics	4, 12
Dr Cristin Ryan	Lecturer in Clinical Practice	4, 12
Professor Michael Tunney	Chair in Clinical Pharmacy	4, 5, 12

In addition, the accreditation team met with a group of 15 students from each of the four years of the course.

The visit

Presentation

The team were given a presentation by the Queen's University MPharm team. The presentation built on information provided in the School's submission and provided an update on progress that had been made since the course was accredited in 2012. Below is a summary of some of the key themes covered in the presentation and submission, together with corresponding views put forward by students at the student meeting (activity 9).

Overview of the MPharm and changes since 2012

The team were given a presentation focussing on developments in the following areas since 2012:

- Enhancing integration
- Developing integrated teaching and assessment across levels
- Streamlining and combining pharmacology/pharmacotherapy teaching
- Implementation of the new Community Pharmacy Placement Programme
- Implementation of the IPL strategy

The presentation explained how the course was vertically and horizontally integrated. The School use mind maps and signposting as a way of ensuring students understand the integrated nature of their course. These tools help students navigate their way through the course. Students also reiterated the use of mind maps within the course and explained how these helped bring things together.

The School also advised they had further developed integrated teaching and assessment across all levels of the course. In assessment, the School had embedded high stakes assessment throughout all levels. The team was also told assessments became more complex as student progresses through the course.

The team were given a brief overview of the types of assessments encountered by students across the different levels. In the early years they have devised criterion referenced assessments (CRA). The School advised that in these assessments they provide students with a patient scenario and instructions on what tasks they need to complete with the patient. They then are required to run through these tasks with a member of staff taking on the role of a patient. In later years assessments become more complex with students undertaking Objective Structured Clinical Examinations (OSCE).

The School explained how they use a patient centred curriculum that develops in complexity throughout the four years. Practice placements take place from the first year together with inter-professional learning sessions. They advised they had made advancements in both these areas. For inter-professional learning sessions the School has engaged with colleagues in undergraduate medicine and nursing.

When discussing integration with students, they confirmed that they could see how everything they do is integrated. They also felt that the integration on the course helped them when dealing with patients on placement. This was particularly highlighted by the fourth year students who said they could see how everything had been built up over the first three years. They also acknowledged the patient centred approach of the course.

Since 2012, the School also implemented a new community pharmacy placement programme and an IPL strategy. These, together with the assessment strategy, are outlined in more detail below.

Assessment strategy

The team was told about the School's assessment strategy, the overall aim of securing patient safety and delivering the learning outcomes contained in Standard 10 of the Standards for the Initial Education and Training of Pharmacists. The aims of the strategy were explained as:

- Deliver Standard 10 Outcomes to safeguard patient safety
- Promote effective learning
- Foster skills development
- Ensure integrated thought and practice
- Generate feedback
- Develop reflective practitioners
- Reward excellence and encourage improvement

They reiterated the importance of thinking in a joined up way and that assessments become more complex as students progress through the course. They explained the aim of first year assessments was to test students' knowledge. As students' progress, expectations are increased, and students are required to demonstrate knowledge and skills at a shows how and does level. The team were told the School uses a mixture of formative and summative assessment methods. When questioned about the impact of the OSCEs, the School advised that this had improved the ability of students to think on their feet. Consequently, the student placement tutors thought the decision making skills of students had improved.

The School also confirmed that assessments were designed to assure students' fitness to practise and to safeguard the public. Therefore, students would be scored a zero grade if their action could harm a patient and such students would be unable to progress.

When asked about assessment at the School, students felt the assessments supported their learning. They also felt that assessments throughout the year helped them to build up to the final year examination, whether a CRA or OSCE.

The team were advised that students were provided with assessment feedback as soon as possible, the aim of which is to encourage students to reflect on their learning and facilitate improvement. Students are also supported on a one-to-one basis by their personal tutors, Advisors of Studies and Director of Education. For example, once they complete their placement they are assessed and feedback is provided by their personal tutor.

The quality of feedback is also reviewed on a regular basis. Students also felt that feedback on assessment is sufficient, explaining that they get a lot of verbal and written feedback.

Community pharmacy placement programme

The team were told how the community pharmacy placement programme had been developed and evaluated since 2012 and was officially launched in 2013. The placement programme is delivered in partnership with Queen's University accredited 'Student Training Centre' pharmacies across Northern Ireland. Community pharmacists opt in to this network and they are trained and supported by the University through an accredited online CPD training programme. Elements of the training include helping tutors understand what tasks students need to complete on their placement and how the placement links in with what they are doing on their course. At the end of this training programme pharmacists submit a training agreement and become a partner in the community pharmacy placement network. The team were told the programme had attracted many pharmacists from across Northern Ireland, in a mixture of rural and urban areas.

On each placement students are required to complete tasks set out in their workbook. The workbook is then submitted for assessment. The team were told that part of the training was to provide an overview of the course, explain what students were required to complete while on placement and to advise tutors of what students are learning about at the time they go on placement.

The School receives regular feedback from pharmacists and students on the placement programme. Feedback had been very positive from both groups. It highlighted that pharmacists felt supported and that the placements were of value. In the student meeting, students confirmed they found the placements valuable. The students confirmed that their pharmacist tutors were well prepared and understood the tasks students were required to complete while on their placement.

Inter-professional learning (IPL) programme

The team were told how the presentation covered all four years of the degree and explained the different activities undertaken by students in every year. In year one, the IPL activity is based around numeracy and is run jointly with medical students. Students work in buddy groups to complete clinical numeracy tasks. In year two, the session focuses on pharmacokinetics. The session is also run jointly with medical students and students work through applied pharmacokinetic equations in mixed groups.

The team were told that the programme for year three students is currently being piloted. Students have already had a pilot session with medical students on their GP rotation. Feedback from this session had been positive. There will be a further session where pharmacy students work with trainee barristers to simulate clinical negligence cases in a court of law. Pharmacy students will be required to defend themselves and justify their decision. When questioned about the value of this session, the School advised it would highlight the importance of not making mistakes and patient safety.

In year four, students work with nursing students. They look at ethical dilemmas involving pharmacists, nurses and doctors. Overall, the School was keen to emphasise that the skills learnt in these sessions are built on during the student placements where they work with other healthcare professionals.

When discussing IPL with year one students, they thought the sessions valuable. They advised that it was good to see the strengths and weaknesses of each professional viewpoint. They also thought that it helped them to build confidence in their own ability to work in a multidisciplinary healthcare team. Students in other years also highlighted the value of these sessions.

Other matters discussed with staff and students

Student feedback

Staff advised that they had been responsive to student feedback. The main channel for feedback is the Student Staff Consultative Committee (SSCC). The School advised they reviewed all student feedback, considered their views and made changes where required. The School sees it as a learning process where students and teaching staff are learning about each other. Student feedback has also been used to improve the placement programme. This has been used to make the placements more authentic.

Students were impressed with the way the School responded to their feedback. They also mentioned the SSCC and said that there had been a lot of changes based on their feedback.

Placements in general

The team were told by the staff about how the student placements were important in providing experiential learning opportunities for students. They advised that the feedback from placements was used to improve the placement activities for students.

Students explained that they thought the placements were valuable. They were able to articulate the value of their experience across all four years of the course. Year one students explained how the hospital placements had been a great experience. They spoke to patients and pharmacists and were introduced to prescriptions and different drugs. They also thought it was good to see how other health professionals spoke with patients. Year four students explained they were assessed thoroughly on their placements. They are marked on their clinical skills by a pharmacist and they also undertake an audit in the hospital.

Reflective learning was highlighted by students as a key component of their learning after their placements. They explained that they got feedback on their performance and were encouraged to reflect on their performance. They explained that from first year this started to become automatic. The workbook that students complete facilitates this process.

Professionalism and patient engagement

Students stated that they thought professionalism was ingrained within the course. They explained how they are expected to think and present themselves as a professional. They explained they were very aware of the Code of Conduct. They believed their assessments supported them in becoming confident decision makers.

Students advised the team that they encountered patients throughout the course. They highlighted the patient engagement undertaken in the diabetes workshop. Diabetic patients are central to this workshop and students enjoyed the opportunity to ask them questions and learn about how they manage their condition. They also liked that they could see that the reality of managing a condition, for a patient, did not always exactly match 'textbook' learning' They also highlighted how these sessions help build their confidence in speaking with patients in preparation for their placements.

For the remainder of the interim visit the team divided into small groups and observed a number of activities. Between sessions, the team also reviewed additional documentation provided by the School.

Observation of student activities:

All activities observed on and off-site are summarised below. Further detail of each can be found in Appendix 1.

Some team members also observed off site placements prior to the activities observed on the day of the visit.

- **Activity 1: Inter-professional learning – numeracy (Year 1 – satellite visit)**

This session was run jointly with medical students. It started with an overview of inter-professional learning objectives, the potential significance of numeracy errors resulting in patient harm and the relative frequency of x10 errors. Students were allocated to groups which were a mix of pharmacy and medical students. Students were observed completing patient based numeracy tasks within their groups. The facilitator provided detailed explanations and answers for each task but no individual assessments were undertaken.

Participation was good and collaboration increased as the workshop progressed. Students were receptive to the concept of IPL and thought this would have a positive impact on them and the healthcare team.

- **Activity 2: Inter-professional learning – pharmacokinetics (Year 2 – satellite visit)**

This session was also run with medical students. It commenced with students being told about the importance of learning from each other and the impact of poor communication on patient safety. Students worked through case studies within mixed groups of medical and pharmacy students. They then jointly provided feedback to the class on one of the cases. The pharmacokinetic tasks were completed collaboratively and supportively and the importance of accuracy in this skill was emphasised in the context of patient safety.

There were differing views among the students as to the value of the session. There was evidence of an increasing awareness of the role of each healthcare profession. This included a reference made to being able to access a pharmacist in a ward to check doses. Students also recognised the commonalities and differences in the skills they were developing.

- **Activity 3: Pharmacy practice class (Year 3 - satellite visit)**

This session required students to dispense a prescription and counsel a patient, take part in a tutorial with a pharmacist demonstrator, develop standard operating procedures as part of a group-based activity, and engage in a final group discussion at the end of the session.

Brief discussions with students were positive. They described an evolving understanding of their role as pharmacists and considered themselves to be prepared for this workshop.

The dispensing exercise required students to use their knowledge of legal and professional requirements and their clinical and communication skills. Students were busy and engaged. Staff acted as simulated healthcare professionals and patients and provided immediate feedback to students about errors, omissions, key patient safety issues and where they were likely to get marks deducted.

There was a high level of participation in the group activity where students developed standard operating procedures. Students found this work important as it brought them an increased awareness and appreciation of the competencies of others. Students were reminded of the importance of reflecting on errors and lessons learnt and how to revise the SOPs as required.

- **Activity 5: Diabetes workshop (Year 3 - part of clinical therapeutics 3)**

This session was split into two workshops, one on type 1 diabetes and the other on type 2 diabetes. In each session, students listened to expert patients describe the history of their disease, its progress and their drug treatment. The patients also explained the effect the disease and its treatment have on their lifestyle.

Students then questioned patients on the use of: drug cassettes, appropriate timing of drug administration, drug interactions, glucose testing, self-administered injections, supply of medicines, the role of the pharmacist in patient care, lifestyle changes and the effect on diet and the management of hypoglycaemia.

This was an excellent session. The expert patients were impressive and had very individual differences, which was of benefit to the students. Students who engaged with the patients were professional.

- **Activity 6: Objective Structured Clinical Examination (OSCE) (Year 2 - part of clinical therapeutics 1)**

Students undertook OSCEs across four different workstations. There were two verbal workstations and two written workstations. The verbal workstations had both an assessor and an actor patient. The written workstations tested patient information and medicines reconciliation.

The session worked efficiently and the students appeared comfortable with the process. The scoring system for each station appeared to be rigorous and the session followed normal OSCE process. Team members were unable to interact with students as they did not want to affect their performance (this was an assessed session). However, from what was observed, the team felt confident that the outcomes set for this session were met.

- **Activity 7: Interprofessional learning session with nursing students (Year 4)**

Students were organised in to four mixed groups and were given three ethical dilemmas to work through. Students discussed and decided on how they would respond based on a systematic values framework. Each group was then required to give feedback on how they would respond to the class.

The students worked well together and were fully engaged in the activity. Students were articulate in explaining how these activities helped them develop an understanding of others' roles in a multidisciplinary healthcare team. They also explained that it helped them to appreciate their role and the unique contribution they could make to patient care.

- **Activity 8: Community pharmacy placement (Year 2 – part of pharmacy practice 1)**

For this activity, the team had the opportunity to observe a pharmacy student on their community pharmacy placement. This gave the team the opportunity to discuss the placement with both the student and supervising pharmacist.

The supervising pharmacist explained they had completed the accreditation training programme 18 months previously. This had provided a good background understanding of the course, the stage where the student is at and what experiences they should be providing for the student. The tutor was supportive of the programme and thought that it helped build students' confidence in a number of areas important to pharmacy practice.

Speaking with the student, they felt prepared for the placement and for dealing with patients. The student explained that their workbook contained activities that they needed to complete on their placement. They also explained that their workbook was assessed and contributed to their final mark.

The placement was well-organised and had been thoughtfully designed to meet the student's learning objectives.

- **Activity 10: Consultation skills workshop (Year 4 - part of pharmacist prescribing)**

Students were observed working in groups of four and took part in a role play as well as observing others in the class when it was their turn to take part. Students also watched a video of two actors acting out a hospital consultation and were asked to provide feedback on the way the pharmacist undertook the consultation.

Students were well engaged and competent. They all seemed to enjoy the session. Facilitation of the session was excellent and students worked well together. Although the team were unable to observe the full session, they were satisfied that the standard 10 outcomes for this session would be met.

- **Activity 11: Physical pharmaceuticals practical (Year 1)**

In this session, approximately 50 students were divided into four groups, with each group undertaking a separate experiment. Students received an introduction at the start of the class and were provided with written information in preparation for the class. Individually, each student is expected to complete their own scientific report which they must submit up to four days after the class. Extensive feedback is provided at the next lab session.

The session was well supervised and the laboratory well resourced. Students appeared engaged and focussed. Some scientific reports were reviewed and were of a high standard. There were also clear marking schemes in operation. The speed of feedback to students is impressive. The observing team member was satisfied that the aims and objectives for this session were met.

Conclusions

The team's conclusions are based on their observations, discussions with students and staff and documents provided by the School. The team would like to thank the School for their hospitality and acknowledge the hard work that staff had done to ensure that the event ran smoothly.

Overall, the team were satisfied the course was continuing to meet the standards set in the GPhC's standards for the initial education and training of pharmacists. All sessions observed met the objectives stated in the documents given to the team. There are no additional conditions or recommendations and the judgement made by the joint GPhC and PSNI accreditation team in 2012 still stands.

The team were convinced the course is sufficiently integrated. The team acknowledge the effort made in developing the programme and embedding the concept of integration across the School. This degree is clinical and patient focussed and this was confirmed by the students in the student meeting. The students explained that they appreciated this approach to learning and valued the level of integration on their course.

The inter-professional learning session with nursing students provided the opportunity to see the high levels of engagement between the pharmacy and nursing students. When speaking with students, they explained how they enjoyed this session as it allowed them to understand each other's perspectives when making decisions about patients.

The team were impressed with the diabetes workshop as it gave students the opportunity to interact with real patients. They explained how this experience helped consolidate their learning and appreciate that all patients were different. It is clear the University recognises the importance of these interactions and have ensured a high quality experience for students. Overall, the team found the students to be engaged during each of the sessions, and the tasks and exercise to be at a suitably challenging level for students.

In 2012, the accreditation team recommended the quality assurance of placements be under the control of the university. The team is satisfied that that staff have worked hard to develop a quality experience for students through the development of the new community pharmacy accreditation scheme. The team saw evidence that there is a strong relationship with the university and the placement providers. The team views this is an area of good practice.

The additional materials provided by the School demonstrated an innovative approach to integrated assessment. The criterion referenced assessments were of particular interest and the team views these as an excellent approach to developing competency. The team also reviewed a number of projects with accompanying booklets and were impressed with the high standard of work produced by year 4 students at Queen's.

The team were also impressed by the high level of assessment feedback. It was clear the students benefit from this level of feedback and use it to develop their learning.

Finally, the student meeting gave the team the opportunity to get the views of students on their course. The students were observed to be intelligent, articulate and mature and could see the importance of what they were learning. They clearly appreciate their status as a Queen's student and the support they receive from the staff. The students spoke about how they were inspired by the staff around them. They also felt motivated to reach their full potential.

Appendix 1 – Activities observed by the Accreditation team

Activity 1: IPL Numeracy (satellite visit – year 1)

The aim of this session is to provide medical and pharmacy students with an opportunity to work together and learn from each other to complete numeracy tasks.

Learning objectives

- Be aware of the main roles of the other healthcare professional
- Recognise the importance of working together as healthcare professionals
- Be able to complete patient-based numeracy task as an inter-professional team

Standard 10 outcomes covered

- | | |
|------------|------------|
| • 10.1.f | • 10.2.2.f |
| • 10.1.g | • 10.2.3c |
| • 10.1.h | • 10.2.5.f |
| • 10.2.1.e | • 10.2.5.g |

Activity 2: IPL Pharmacokinetics (satellite visit – year 2)

The aim of this session is to provide medical and pharmacy students with an opportunity to work together and learn from each other to complete pharmacokinetic calculations.

Learning objectives

- Recognise the importance of working together as healthcare professionals
- Recognise the importance of pharmacokinetic calculations in the healthcare environment
- Be comfortable interacting with students from other healthcare disciplines

Standard 10 outcomes covered

- | | |
|------------|------------|
| • 10.1.f | • 10.2.1.f |
| • 10.1.g | • 10.2.3.c |
| • 10.1.h | • 10.2.5.f |
| • 10.2.1.e | • 10.2.5.g |

Activity 3: Pharmacy Practice 1 class (satellite visit – year 3)

On completion of this module, students should have the clinical and legal skills to competently dispense all NHS and private prescriptions including stock and supply orders.

Learning objectives

- Utilise computer software specific to the dispensing process i.e. patient medication records, drug interactions, owing slips, pricing private prescriptions and wholesale transactions
- Communicate with other healthcare professionals regarding prescription interpretation and wholesale transactions
- Communicate with patients (questioning, listening, explaining)
- Prepare a concise written summary on the item(s) dispensed
- Develop standard operating procedures in a group context
- Make decisions and use professional judgement with respect to dispensed products
- Be assessed on their knowledge of the sale, supply, labelling and recording of veterinary medicines

Standard 10 outcomes covered

- 10.1.f
- 10.2.a
- 10.2.h
- 10.2.2.c
- 10.2.2.d
- 10.2.3.e
- 10.2.2.e
- 10.2.2.g
- 10.2.2.h
- 10.2.2.i
- 10.2.2.j

Activity 5: Diabetes workshop 2 (part of PMY3175 Clinical Therapeutics 3 – Year 3)

The aim of this session is for students to develop a knowledge and understanding of the treatment of diabetes mellitus and associated complications

Learning Objectives

At the end of this session, students will have gained a knowledge and understanding of the following in relation to the management of patients with diabetes mellitus:

- Devices and systems for delivery of insulin
- Recognition of symptoms indicative of hypoglycaemia
- Prevention and treatment of hypoglycaemia
- The need to tailor treatment around individual patient's lifestyle
- Students will also communicate with patients about their prescribed treatment

Standard 10 outcomes covered

- | | |
|------------|------------|
| • 10.2.1.d | • 10.2.2.b |
| • 10.2.1.e | • 10.2.2.e |
| • 10.2.1.f | • 10.2.2.f |
| • 10.2.1.h | • 10.2.2.g |
| • 10.2.2.a | |

Activity 6: OSCEs (part of PMY2015 Clinical Therapeutics 1 – year 2)

The OSCEs in level 2 are designed to assess some of the basic clinical skills developed during the Level 2 Hospital Placement.

Learning objectives of the OSCE

- To develop knowledge of the role of pharmacists and pharmacy technicians within the hospital and wider healthcare team.
- To consolidate knowledge you have gained about the pathophysiology of disease and use of medicines in first and second year in order to develop new clinical pharmacy skills and establish how this practice contributes to patient care.

Learning objectives of the hospital placement

By the end of the placement you should be able to:

- Identify the role of hospital pharmacists within the healthcare team
- Appreciate how hospital pharmacists contribute to patient care
- Develop and apply clinical pharmacy skills to real life patient scenarios
- Develop and apply medicines information skills to answer medicines-related queries
- Communicate effectively and professionally with patients, peers and other members of the pharmacy and wider healthcare team

Standard 10 outcomes covered

- 10.2.1.h
- 10.2.2.d
- 10.2.2.e
- 10.2.2.h
- 10.2.4.b
- 10.2.4.d
- 10.2.4.h

Activity 7: IPL Ethics (with nursing students – year 4)

The main aim is to provide students of nursing and pharmacy with a basic knowledge and understanding of moral values, ethical theories and principles of human rights and through discussion in an IPL setting, to demonstrate how these may be applied to their future practice.

Learning Objectives

On completion of the course students will demonstrate an:

- ability to debate and explore resolutions of ethical dilemmas and conflicts in practice;
- ability to collaborate in an informed, tolerant and empathetic way, with other healthcare professionals in moral decision making; and
- understanding of the importance of reflecting on the implications of the above for their future practice.

Standard 10 outcomes covered

- 10.1.a
- 10.1.b
- 10.1.f
- 10.1.h

Activity 8: Community Pharmacy Placement (part of PMY3064 Pharmacy Practice 1 – year 2)

The placement aims to facilitate the students in putting their theoretical learning into context in a practical setting and help them to consolidate their past and future learning by reflecting back to experiences they have on placement

Learning objectives

At the end of this placement period the student should:

- Understand the core aspects of the dispensing process
- Be familiar with how to label prescribed medicines
- Have a basic knowledge of the clinical and legal aspects associated with prescriptions
- Have an awareness of the key counselling points that need to be discussed with patients when dispensing various medicines
- Know how to make a record for a Controlled Drug in the Controlled Drugs Register
- Have awareness of Standard Operating Procedures, near miss and error logs

Standard 10 outcomes covered

- 10.2.2.d
- 10.2.2.e
- 10.2.2.j
- 10.2.3.g
- 10.2.5.a
- 10.2.5.b

Activity 10: Consultation skills workshop (part of PMY4071 Pharmacist Prescribing – year 4)

The aim of this workshop is to further develop the student's consultation skills in the role of a prescribing pharmacist

Learning objectives:

The student will have acquired the ability to:

- communicate and consult effectively with patients;
- assess patients' needs for medicines;
- monitor response to therapy and modify treatment using care plans or refer the patient as appropriate; and
- consult with a patient in a timely manner through the use of an OSCE format

Standard 10 outcomes covered

- 10.1.g
- 10.2.1.a
- 10.2.1.e
- 10.2.2.b
- 10.2.2.c.
- 10.2.2.e.
- 10.2.2.f.
- 10.2.2.g.
- 10.2.2.h.
- 10.2.2.i
- 10.2.4.a
- 10.2.4.b.
- 10.2.4.c.
- 10.2.4.d.
- 10.2.4.e.
- 10.2.4.f
- 10.2.4.g
- 10.2.4.h
- 10.2.5.f
- 10.2.5.g

Activity 11: Physical Pharmaceutics Practical (PMY1015 – year 1)

There are a range of experiments being completed in this practical session:

Experiment 4 – Kinetics

Aim of experiment

- To use absorbance measurements to calculate drug concentrations
- To determine the reaction rate for the degradation of aspirin
- To examine the effect of pH and temperature on the degradation of aspirin
- To use the data generated at elevated temperatures to determine the stability of aspirin at room temperature.

Experiment 5 – Buffers and pH

Aim of Experiment

- To prepare a buffer solution
- To measure the buffering capacity of a buffer
- To determine the effect of buffer concentration on buffer capacity

Experiment 6a Dissolution kinetics of solids

Aim of experiment

The main aim of this experiment is determine the kinetics associated with aqueous dissolution of a solid

Learning objectives

- to develop laboratory skills related to making up and handling of solutions
- to apply equations related to kinetics to practical data
- to develop computer skills (Excel)

Learning Outcomes

- to develop laboratory skills related to making up and handling solutions and the measurement of pH
- to apply equations related to buffers to practical data
- to develop computer skills (Excel)

Learning Outcomes

- to develop computer skills (Excel)
- to calculate the dissolution rate constant at different temperatures, the Arrhenius activation energy is determined.

Experiment 6b Influence of pH on drug absorption from the gastrointestinal tract

Aim of experiment

The aim of this laboratory activity is to determine the effect of pH on the ability of different drugs (aspirin and paracetamol) to move from water into ethyl acetate and

Standard 10 outcomes covered

- 10.1.e
- 10.2.3.c
- 10.2.3.j
- 10.2.3.k

Learning outcomes

- to use thin-layer chromatography and UV light to determine the presence of the test drug in each sample
- to relate their observations to the accepted pattern of absorption of drugs from the gastrointestinal tract