

MPharm Interim Visit

Robert Gordon University

21-22 March 2016

Master of Pharmacy degree course (MPharm) interim visit

Robert Gordon University

Report of an interim visit, 21-22 March 2016

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 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 timetables 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 Robert Gordon University.

Background

The last full accreditation visit by the GPhC took place at the Robert Gordon University School of Pharmacy and Life Sciences in March 2013. No conditions or recommendations were imposed and the accreditation Team recognised the continued development of inter-professional education at RGU as a strength of the provision. The Registrar ratified this outcome on 3 June 2013.

Prior to the interim visit the University submitted documentation to the GPhC and a pre-visit meeting took place via teleconference on 2 March 2016. 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, 17 satellite visits took place 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 Robert Gordon University on 21-22 March 2016.

21 March 2016		
Meeting	Activity	Time
1.	Private meeting of accreditation team and GPhC representatives	13:00 – 15:00
2.	Presentation by the RGU MPharm staff team on the MPharm at RGU and progress to date	15:00 – 17:00
3.	Private meeting of accreditation team and GPhC representatives	17:00 – 17:30
22 March 2016		
Meeting	Activity	Time
4.	Members of the accreditation team and GPhC representatives observed activities which ran concurrently: Activity 11: Introduction to Medicinal Chemistry Activity 12: Medicines design and Manufacture Activity 13: Developing Pharmacy Practice Activity 14: Project Introduction Journal Club This also included a tour of the new building from 11:00 – 12:00.	9:00 – 12:30
5.	Private meeting of accreditation team and GPhC representatives	
6.	Student meeting	12:30 – 13:45
7.	Private meeting of accreditation team and GPhC representatives (including review of all documentation provided (see Appendix 2)	14:00 – 15:30
8.	Feedback to RGU MPharm staff team and students?	15:30 – 16:00

Accreditation team

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

Name	Designation at the time of accreditation event	Activities/meetings attended
Professor Andrew Husband*	Accreditation team leader, Dean of Pharmacy and Professor of Pharmacy Education, Durham University	1, 2, 3, 5, 6, 8, 9, 12
Dr Adam Todd	Accreditation team member (Academic), MPharm Programme Director, Durham University	1, 2, 3, 5, 6, 8, 9, 11
Ms Raminder Sihota	Accreditation team member (Pharmacist), Senior Manager – Professional Development, Boots UK	1, 2, 3, 5, 6, 8, 9, 13
Ms Samantha Hayman	Accreditation team member (Pharmacist – recently registered), Senior Clinical Pharmacist, Maidstone and Tonbridge Wells NHS Trust	1, 2, 3, 5, 6, 8, 9, 14

along with:

Name	Designation at the time of visit	
Ms Joanne Martin *	Quality Assurance Manager, General Pharmaceutical Council	1, 2, 3, 5, 6, 8, 9
Mr Paul Stern	Rapporteur, Policy Manager (Education), General Pharmaceutical Council	1, 2, 3, 5, 6, 8, 9, 13

*attended pre-visit teleconference, 2 March 2016.

Course provider

Representatives of the Robert Gordon MPharm degree. The team met with the following:

Name	Designation at the time of accreditation event	Meeting attended
Professor Donald Cairns*	Head of School	2, 4, 8
Ms Alyson Brown*	Lecturer in Pharmacy Practice, Placement coordinator and module	2, 8

	coordinator	
Dr Scott Cunningham*	Senior Lecturer and Teaching Group Leader (Clinical Practice)	2, 8
Professor Susan Duthie	Associate Head of School	2, 4, 8
Dr Ruth Edwards*	Senior Lecturer and MPharm course leader	2, 8
Ms Gwen Grey	Lecturer in Pharmacy Practice, Stage 2 Lead and Module Coordinator	2, 8, 13
Dr Graeme Kay	Senior Lecturer and Teaching Group Leader (Chemical Science)	2, 8
Dr Barbara McKenzie	Lecturer in Pharmaceutical Science	2, 8
Ms Joanne Procee	MPharm Course Administrator	2, 8
Professor Alison Strath*	Chair in Community Pharmacy Practice	2, 8
Dr Lynda Storey	Lecturer in Medicinal Chemistry, Stage 1 Lead and Module Coordinator	2, 8
Dr Colin Thompson	Lecturer in Pharmaceutical Science and Module Coordinator	2, 8
Dr Helen Vosper	Lecturer in Biomedical Sciences, Learning Enhancement Coordinator and Module Coordinator	2, 8
Ms Elaine Youngson	Lecturer in Pharmacy Practice and Module Coordinator	2, 8
Dr Anita Weidmann	Senior Lecturer in Clinical Pharmacy, Postgraduate Programmes Leader and Module Coordinator	2, 8, 14

In addition, the accreditation team met with a group of 14 students and three current pre-registration trainees who are recent graduates of RGU.

The visit

Presentation:

On arrival, the team was given a presentation by the Robert Gordon MPharm Management Team. The presentation built on the information provided in the submission and gave an update on progress since the last visit in 2013.

The MPharm at RGU and progress since 2013:

The main change highlighted by the School since 2013, was their move to a new building on a new campus for the University. The team heard that the school was the first to move into the new building and that there had been a number of snagging issues that had now been resolved. The School emphasised the benefit this move had in bringing the school of pharmacy and the school of life sciences into the same building giving them the ability amalgamate teaching groups. A further benefit of the new building was the larger labs which allowed them to get the whole MPharm cohort through the same lab session in a day. On the second day of the visit, the team was given a tour of the new building and the laboratory facilities. The team was impressed with the modern facilities available to MPharm students at RGU.

The team was told of how the University as a whole had a disappointing performance in the REF, and how this had led to the University's research institutes being dissolved. The School viewed this positively as they now had more control over research and teaching. The team was also told that the School was the most research active in the University and had improved performance in the REF.

One of the consequences of the research institutes being dissolved was that 28 staff members returned to the School. In turn, this had led the school's budget to go into deficit. However, the team was told that the latest figures suggested a return to surplus this summer. Additionally, the team were advised that the university's budget is currently in deficit. Consequently, the university has decided to introduce a voluntary severance scheme.

The School outlined the positive feedback they had from employers on the course and how they are consistently one of the top schools for employment according to HESA. The team was told the MPharm contained 600 credits split into 150 per year. Students undertake five modules per year and professional experiences run throughout all four years of the course. The team heard about the philosophy of the course, how it is student centred and prepares students for registration by having sound underpinning scientific knowledge, to be lifelong learners, and reflective practitioners. They described their integration strategy and how the course is built around three intertwining themes, the pharmacist, the patient and the medicine. During the student meeting, the students were able to articulate the connections between what they were learning about and how this related to patients. They said they could see the connections between each of their modules and spoke about the case studies that connect formulation and practice. The use of care plans was highlighted, as this allowed them to take what they use in formulations and apply this to a real situation with a patient. Overall, they said they could see how everything ties together.

The team heard about their emphasis on inter-professional education and the importance of professional experiences. The School wished to highlight the success of their professional experiences week. This week is covered in more detail later in this section and was viewed by a number of the team whose reflections are covered in the *observation of student activities* section.

Teaching, learning and assessment:

The team heard that the teaching, learning and assessment strategy was consistent throughout the School and that they had made some changes since it was introduced in 2013. The School outlined a number of factors that influenced the MPharm teaching and learning strategy including values, CPD, innovation and inter-professional learning. They also explained the different modes of delivery for the course and highlighted some of the challenges this had presented.

For example, since 2013 they had introduced problem based learning across all four years of the course, whereas previously it had been done at a later stage on the programme. The team was told about an issue this had caused with the medicines design and manufacture module which was fully redesigned to be delivered through PBL. The team heard how although the School viewed that they had sufficient support in place, the students struggled with the self directed approach required and did not feel prepared for the module. Mainly the students felt that they didn't have sufficient underpinning knowledge for the module. To address this, the School introduced more scaffolding and put more staff in place to support students. They also redesigned the first semester for the module and this has led to a better experience for students as evidenced by the positive feedback they have received over the past two years for this module. They also explained that they are currently exploring the possibility of introducing a team based learning approach and are piloting this in the 2015/16 academic year.

The team also heard about the emphasis on developing students into professionals. The School explained how they supported this through focussing on a number of aspects including decision making, leadership and management. They provided an example of an exercise that they had undertaken with students to help promote professionalism. Once completed, students reflected on what they had undertaken and staff found this a valuable way to promote empathy within the student cohort. On assessment, the School explained how it is progressive and builds on themes throughout the course. As the student progresses, assessments also build on the type and complexity of questions that are covered. The assessment strategy is also matched to the Standard 10 learning outcomes in the *GPhC's Future Pharmacist: Standards for the initial education and training of pharmacists*.

When students were asked about practice based learning and OSCEs, they acknowledged that changes had been made to both and were overall supportive. They felt that both had been improved and that they were given sufficient information on each.

Placement strategy and provision:

The team heard about the School's placement strategy and how students undertake placements across all four years of the course. Students undertake a range of placements in hospital, community, and industrial pharmacy. They had also initially planned for students to undertake a week long clinical placement, and in the interim introduced a professional experiences week which included a week of professional activities including simulation, short visits to different areas of practice, and inter-professional education sessions. However, feedback from the week was overwhelmingly positive and this had led the school to keep the professional experiences week. The School also advised that they are currently looking to increase the number of work based placements and are currently undertaking a review of placement provision to look at ways they can increase the quality and quantity of work based placement provision. The team heard that this was being conducted jointly with NHS Education Scotland and Community Pharmacy Scotland.

When asked about the integration of placements with the course, the School advised that they made it explicit to students that placements were integrated, but they were looking to make this more explicit. They emphasised they are currently collecting data about placements provision and reviewing their effectiveness with a view to building on what they have achieved so far. The team explored this further and were told about how hospital placements were integrated. They outlined how students are prepared for this session and that there is a verbal debrief after the placement with students required to complete a CPD entry. They also explained that they built the experiences of the students from their placements to into their next sessions to ensure integration between the placement and what is taught at university.

When asked about placement provision, students advised that they enjoyed their placements overall. First year students found them valuable as it gave them an opportunity to see not only what pharmacists and pharmacy technicians do, but also improve their understanding of the work of others in a pharmacy environment. Second year students spoke about the two community pharmacy placements they undertook and how this experience helped with their counselling skills and understanding of the links between legislation and what happens in a pharmacy. Third year students were more critical of their placement experience. The team heard that some students had mixed experiences with their one week community pharmacy placement and that this had been reported back to the School.

Patient/carer engagement and provision:

The team was told the School uses patients and carers at every stage of course delivery. Patients are used less in years three and four due to these students undertaking more placements. Patients and carers are used in two ways, they can be used to discuss their real experiences, or they can be used during simulation exercises with

students. For example, in year one, patients talk to students about their real experiences of illness and medicine taking, whereas in year three, they are used in a simulation session on responding to symptoms.

At the student meeting, students confirmed that they saw patients across all four years of the course. The students spoke positively about the use of patients throughout the course. One session that was highlighted by third year students was the time when they undertook a simulation session with children. The students explained how they found this challenging, but also a valuable simulation exercise. The students also explained the value of the feedback they received from volunteer patients and how this helped to develop them into better practitioners.

The benefits of these patient interactions was also highlighted by three current pre-registration trainees who had graduated from RGU the previous year. They explained that this helped them with real life situations and helped develop their decision making skills. They stated that it prepared them well for their pre-registration training year.

Regarding curriculum design, the team was told patients were involved in curriculum design in 2013, but there hadn't been any further involvement of patients in this area since this time. The Schools experience was that patients had mixed views on getting involved in curriculum development. However, they stated there are plans to establish a formalised structure to improve the involvement of patients in course design.

Inter-professional education (IPE):

The team heard the School views their IPE as a strength of their programme. They stated there would be a continuing focus on IPE, given the increasing focus on multi-disciplinary team working within healthcare. When questioned further on this, the School emphasised that they didn't want to run IPE sessions just to meet requirements, but were focussed on providing a genuine experience that allowed students from different healthcare professions to learn from each other. In years one and two, there are a number of mandatory sessions that give students the opportunity engage in one to one/face to face staff facilitated sessions with students from other healthcare professions. In years three and four, the team was told that IPE was undertaken in practice rather than through organised sessions. This was confirmed by the students, who described IPE in years 1 and 2 as more structured, while IPE in years three and four was more voluntary. The School also run an IPE Moodle across all four years, but when discussed with students, they said that not all students were aware of this.

First year students highlighted the value of these sessions. They spoke about one activity that ran with nursing and physiotherapy students. They explained the value of speaking and working with others as it gave them an understanding of where the different roles healthcare professions play in patient care.

The team was told that the focus of the IPE session for second year students was on patient safety and the duty of candour. The session discusses where and when to speak up. The students provided further explanation of this activity, stating they were given case studies to work through which they found helpful, although stated that they would have liked more case studies to work through.

The School emphasised that they were developing further IPE for all students including ongoing work they are doing with the University of Dundee. The team was presented with an evaluation of a pilot activity that had run between medical and pharmacy students. The results highlighted the value of these activities with the results showing how students thought the activity had enhanced their future ability to work in a multi-disciplinary team. The School also spoke briefly about an exercise

they had run jointly with St Andrews University. When discussed with students, the ones who attended said they found it valuable, but thought it should be available to all students.

The School highlighted that there are further optional activities that students could contribute to and the students highlighted that there is an IPE society and there were a lot of pharmacy students involved.

Other issues discussed outside of the presentation:

Student feedback and support:

During the student meeting, the team explored the level of feedback and support students received on the course. Students advised that the feedback they had received had traditionally been late and not individualised. When explored further by the team the students said they could get individualised feedback if they were proactive with the staff, but would like individualised feedback for every student. They explained that they have raised this with the school and there had been progress made on improving feedback for students.

Regarding support, students spoke about the personal tutor system and how they are assigned a personal tutor and develop a personal development plan. They explained that some tutors were better than others in engaging; however, when an urgent issue is raised, tutors will respond. The team also heard there were staff and student liaison meetings twice a year and student representatives could also email staff outside of these meetings with specific issues they would like addressed. The students found this to be a useful way to engage with staff.

Observation of student activities:

For the remainder of the interim visit team members observed a number of activities, many 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.

Between these activities the team members convened a number of private meetings to share their observations. The team also took this time to review additional documentation that had been provided by the School for review (see Appendix 2).

The following summarises comments made by those team members who observed the activities both on the satellite visits and during the interim visit itself. Further details of each activity can be found in appendix 1.

- **Activity 1: Project introduction: Charities day (satellite visit)**

This session involved students giving a group presentation in the morning about research their charity has supported and why they should continue to give money to their charity. In the afternoon, the best three groups presented again to a panel of external experts with the best overall getting a donation to their charity. During the lunch break, students also had the opportunity to discuss their presentation with charity representatives and external experts. The research is both science/lab based/quantitative and practice/clinic/qualitative.

The team member observing had the opportunity to speak with students about their presentations and to watch the presentations in the afternoon. They found the students to be engaged and enthusiastic about this session. The students explained how it was helping them prepare for their fourth year research project with the module providing instruction on research governance and literature review. When asked how their prior knowledge was integrated in this module, the students were able to describe how their prior knowledge of science, disease and treatment was used in the literature evaluation and aided their understanding of the research papers examined. The afternoon session demonstrated the students' confidence and team working skills. The team member considered the presentations to be of a high standard.

- **Activity 2: Integrated pharmacy practice (satellite visit)**

In this session third year students worked in small groups to explore communication issues and person-centred care in an interactive way. This was the first of three sessions on consultation skills for third year students. There were three elements to the workshop: a reflection on a patient's view of disease, dealing with challenging behaviour; and use of the SBAR technique (Situation, Background, Assessment, Recommendation) for communicating critical information requiring action. Students rotated through each of these activities.

The reflection on patient's view activity used a poem written by a patient with Alzheimer's disease and were asked to put themselves in the 'patient's shoes'. The students appeared fully engaged in this activity, exploring illness and death and the support patients and their families need. The team member considered this activity to be extremely well done with it supporting students' professional development and development of emotional intelligence.

The SBAR exercise was not pharmacy focused, but related to essential work, which needed to be carried out by a hospital estates' department. It introduced the SBAR technique.

The challenging behaviours activity was a role play, with one of the staff playing a patient with asthma. The patient was extremely busy and had come to collect some medication. The student was required to carry out a medicines use review with the patient. Students had to understand the needs of the patient and how this conflicted with their own agenda. They had to negotiate while remaining composed and professional. The facilitator stopped the consultations appropriately to allow the students to reflect on their questions and the patient's responses, and explore better ways to question and engage the patient to achieve mutually agreed and desired outcomes. The team member considered this to be an excellent communication exercise that was of value to students.

- **Activity 3: Professional experiences week**

Six activities were observed during the RGU School of Pharmacy Professional experiences week. A description of these activities is covered below.

Activity 3.1: Community pharmacy simulation workshop

This session involved fourth year students working in pairs in a community pharmacy pod. In each pod they had access to OTC products, a computer & labelling machine, a telephone, a dispensing bench and CD cupboard within the pod as well as POM medicines within a separate drug storage area. There was also a separate desk that was available for patient counselling. Within the pod some prescription items were already dispensed & bagged, some items were awaiting the pharmacist to check prior to giving to the patient and there were some prescriptions which were being handed in randomly by simulated volunteer patients (six, who were all briefed on different scenarios).

The students were asked to carry out their workload while the various simulated patients approached them for advice, OTC product requests, prescriptions to be dispensed as well as picking up prescription for themselves or others of items already dispensed and bagged. The prescriptions dispensed and OTC products provided to the patients were assessed at the end of the day as well as general feedback from the simulated patients. Feedback at the end of the session highlighted areas of good practice and areas for improvement.

Student feedback on the session was positive, explaining that it was a useful exercise for their future professional practice as it allowed them to integrate and bring together various aspects of their learning from all four years of the course.

Activity 3.2: Visit to Maggie's Centre, Aberdeen

This was a visit undertaken by 11 fourth year students to Maggie's Centre, a drop in centre to support people with cancer. Students were shown around the centre and were told what services the centre provided. The supervising tutor was also able to relate their own experience of using the centre, which helped the students to understand wider aspects of health and social provision. The team member considered this to be a really useful session as it gave students the opportunity to engage in this area early on in their training. The team member observing considered that all the aims and objectives for this session were met.

Activity 3.3: Expert patient session

In this session, fourth year students were split into small groups of approximately five to six students and were introduced to one of three expert patients. They listened to the expert patient talk about their life experiences in dealing with their long term illnesses and medicines. The three patients were as follows : an Ileostomy patient who brought along all their stoma products, a patient with Multiple Sclerosis who was wheelchair bound and a patient with multiple issues (depression, various joint replacements, deafness). Students were prepared prior to the session on the types of patients they would meet and were expected to complete a CPD entry after the session.

The team member observing could see the value of the learning gained from these informal discussions. However, they considered there could be a more formal roundup at the end of the session to integrate and consolidate prior learning.

Activity 3.4: Dementia friends training

This session was run with fourth year students. It was run by a Boots teacher practitioner and covered standard dementia friends training. The team member considered this to be a highly emotive session with all students engaged in the discussions. They considered this to be a very good session.

Activity 3.5: Medicines reconciliation workshop

Fourth year students were involved in this workshop. They worked through three different scenarios on medicines reconciliation. This session built on the lecture and practical experience students would have undertaken in their third year. Students undertook the tasks separately at individual desks. The tutor then discussed each scenario in turn and went over the key learning points at the end.

The team member observing considered that students were able to undertake the scenarios and pick up most of the points in the discussion at the end. They also demonstrated some integration and consolidation of prior learning.

Activity 3.6: Conference style professional event

This incorporated a number of sessions that took place on one day. The first session gave the students the opportunity to share their experiences from throughout the week. The students were asked to share their experiences from the wide variety of elective choices they had been required to attend earlier in the week. Feedback was heard on a number of activities. These included, the sensory awareness training, Maggie's Aberdeen visit and Cornerstone. The team member considered this to be a valuable session as it gave students the opportunity hear what their peers had seen. The feedback was positive from students and in most cases, it increased their knowledge of the range of health and social care services in the community. The team member would have liked to have seen greater linking back to the role of the pharmacist and the provision of seamless care to a patient.

In the second session, students listened to Annamarie McGregor from the Royal Pharmaceutical Society speak about a variety of different subjects. These included an overview of professionalism, how to apply professionalism and pharmaceutical care for people with dementia, and Foundation frameworks and support from RPS in your professional career.

This session was very pacey, with lots of opportunities for the students to get involved and ask questions. The presenter built in a couple of scenarios and invited answers from the audience and they fully participated. The content was very strongly linked to the demographics in Scotland and the current government priorities for care in Scotland. The students who the team member spoke to, said they found this session very interesting. The participation and number of questions asked from the audience during the sessions and during lunchtime suggested the content was of interest to many students but may needed longer time to cover in more detail.

The third session was a presentation delivered by Rose Marie Parr, Chief Pharmacist for Scotland. She spoke about the changes ahead and why things cannot remain the same in Scotland. It was a high level presentation about the pharmaceutical care agenda in Scotland, the safer use of medicines, the pharmacy profession and professionalism. It was followed by a question and answer session where the NES pre-registration scheme was discussed as well as thoughts around an integrated MPharm degree in Scotland. The team member observing considered that the students involved, asked questions that were thoughtful and relevant.

The fourth session the team member observed was a facilitated group discussion. Students were split into small groups and discussed some of the themes raised in the previous presentation by the Chief Pharmacist. Some of the themes covered were person-centred pharmaceutical care, the safer use of medicines and pharmacy education in the future. The team member observed three groups and found that not all students contributed to the conversation.

The last session was a student feedback session, where student representatives spoke about the discussions from each of their groups and it was hosted by the Chief Pharmacist for Scotland and the MPharm course leader.

Overall, the team member's view was that it was clear the students in attendance enjoyed the various sessions and spoke positively about the whole week. However, there did not however appear to be clear learning outcomes linked with the sessions.

- **Activity 7: Clinical pharmacology and therapeutics: Hospital visit and supporting lecture (satellite visit)**

- **Activity: Medicines reconciliation lecture**

- This was a 40 minute lecture with third year students. It was used to prepare students for a medicines reconciliation exercise late in the week at a local hospital. The lecturer gave a brief overview of the Scottish Patient Safety Programme (SPSP) and how Medicines Reconciliation was a key aspect of the Safer Medicines workstream within this. He then explained the process of Medicines reconciliation and talked through the hospital paperwork that they would use in their session at the hospital later in the week. The team member considered student engagement during the session sufficient.

- **Activity 8: Clinical pharmacology and therapeutics: Hospital visit (satellite visit)**

- The aim of this session was to integrate scientific principles and clinical skills to evidence-based therapeutics relating to specific body systems including the application of pharmacokinetic principles. The session built on the previous days lecture (activity ?) that covered medicines reconciliation. During this session, third year students undertook a medicines reconciliation exercise at the Aberdeen Royal Infirmary. There were approximately 15-20 students present and they were split into small groups

to three to four students. Students were advised to dress and act professionally and advised of the dress code, processes and behaviour expected on the wards and when dealing with patients which they all adhered to.

The team member observed a group of students working through a problem that had arisen with the medication that a patient was taking and its appropriateness prior to them going into theatre. The students used three sources of information to help them resolve the issue. The team member considered that the students worked well together and enjoyed the session, where they were able to see in practice, the importance of medicines reconciliation and documentation.

The second visit observed was to a patient who was in for palliative chemotherapy in the oncology ward. Students were provided with an extensive set of clinical notes for this patient, which they referred to when undertaking this activity. Overall, the students appeared to be apprehensive at first; however, they all commented that they enjoyed the experience and that the session helped them to see the importance of medicines reconciliation and its important role to pharmacy. The team member observing considered that all the aims and objectives for this session were met.

- **Activity 9: Foundations in pharmacy practice, responding to symptoms (satellite visit)**

The session was designed to introduce students to responding to symptoms, over the counter medicines and resources. There were 30 students in the session and each worked in a group of three or four in a simulated pharmacy. The simulated pharmacies were arranged as a series of pods in the room. Each team worked through different scenarios where each group member played a role, either as pharmacist, dispenser or patient. The session was based on the Scottish Minor Ailments Service.

The team member found that the students engaged well and used their problem solving skills to work through the scenarios. The objectives for the session were clear and the team member considered that these were met.

- **Activity 10: Integrated physiology, lab tutor (satellite visit)**

This was a session for first year students and aimed to help them develop an understanding of human functional physiology through the consideration of selected body systems and to introduce concepts central to understanding physiology in the context of ADME. Students worked in small groups of three and were provided with a laptop and a complete set of laboratory equipment. They worked through lessons provided through specialist software on their laptop. The session is assessed on a pass/fail basis based upon completion of pre-lab quizzes, equipment set up, relevant recordings and answering questions posed by the software during the session. Students also needed to complete work beforehand to prepare for the session.

The team member observing considered the students well prepared for the session as all had completed their pre-lab work. Student engagement was very good and the small group sizes helped all students to get involved in the exercises. Students demonstrated good levels of problem solving while working through their lessons. The team member considered that from what was observed, the aims and objectives of the session were met.

- **Activity 11: Pharmaceutical microbiology, laboratory session (satellite visit)**

The main aim of the session was the development of student's practical skills in aseptic manipulation. Specifically, third year students were required to undertake an experiment to demonstrate the phenomenon of synergy (potentiation) and antagonism (inhibition). Students worked in small teams through different activities. This session took place in a modern and well equipped laboratory with staff on hand to guide and assist students.

The team member observing considered students well prepared for the session. The students had been briefed beforehand (by watching a video) on aseptic manipulation and had undertaken a prior session, where skills were demonstrated and practiced. The team member discussed the session with some of the students present and judged they had an appreciation of the issues around antimicrobial resistance and the impact it has upon healthcare. From what was observed, they were satisfied that the aims and objectives for the session were met.

- **Activity 12: Therapeutic delivery, laboratory session (satellite visit)**

Third year students were involved in this session. It was a laboratory problem-based learning session and is part of a module on Therapeutic delivery. The session took place with approximately half the year's students in an extremely well-equipped and neatly organised, modern laboratory. The students worked in groups of six or seven on a randomly allocated research question provided by the academic team. The students were not assessed during this activity, but later in the year.

The team member observing regarded the students to be fully engaged during the session. All groups were working independently and at pace on their projects, with all group members fully aware of what the task in hand and the objective of the session. Students also showed a high level of enthusiasm for their work. Through discussions with students, the team member considered that students could relate the project they were working upon to the material being taught this year and what had been taught in the foundations in earlier years of the course. They also understood how the activity strengthened their interpersonal, teamwork and communication skills.

- **Activity 13: Integrated pharmacy practice, consultation skills session (satellite visit)**

This session was designed to help students to develop their consultation skills using difficult simulated patients and children. There were approximately 20 third year students in attendance. This session was repeated throughout the day to give all third year students the opportunity to participate. Each student had to take a different role within the simulated pharmacy (pharmacist or dispenser) and respond appropriately with over-the-counter queries from patients.

In the session observed, the patients were a group of children with their family members. The age range of the children was three to seven years and each child had been carefully briefed prior to the session as to what was wrong with them. Each child was accompanied by a responsible adult, and students were expected to develop their consultation skills with both adult and child.

The team member observing thought students were able to articulate the links between the activity and their learning elsewhere on the programme. The students understood the aim of the session, to get students to think about the way that they communication with children and their carers. The team member observing considered that the engagement from students was excellent and that they appreciated the unique opportunity they had to work with a group of children. Overall, the objectives for this session were met.

- **Activity 14: Integrated pharmacy practice, placement visit (satellite visit)**

Third year students were observed on the first day of a week long community pharmacy placement. There were two students attending the community pharmacy and a number of activities to work through in a workbook. The reflections were structured and gave students many opportunities to reflect on their experiences. Students had

to complete the workbooks and hand them in to the academic placement co-ordinator at the end of the placement. There were two pharmacists working in the pharmacy and the students had many opportunities to observe activities and ask the pharmacists questions.

The team member observing considered the students to be highly motivated. Students were prepared for the placement through the academic team; this included outlining the relevant standards of behaviour and included references to the GPhC code of conduct for pharmacy students. Overall, the team member found this to be a good community placement that met the intended learning outcomes; it provided the students with a good overview into the extended services offered through community pharmacy.

- **Activity 15: Consolidating pharmacy practice, ward simulation (satellite visit)**

This activity took place at St Andrew's medical school and was a pilot. It was an IPE session with 4th year pharmacy students from RGU, 3rd year medical students from St Andrews and 2nd and 3rd year nursing students from the University of Dundee.

Each session lasted for 1 hour in total and was in a simulated ward environment. There were typically six beds to a ward and each bed had a simulated patient. There were a variety of simulated patients involved. Students were exposed to two sessions in two separate ward environments. There were around four nursing students, four medical students and 2 pharmacy students to a ward.

During the session, the students also had to make telephone calls to various stakeholders within the simulated hospital, as the scenario was dynamic with some simulated patients becoming more ill on the ward. There was also a telephone in the ward that the support staff called throughout the simulation and the students had to deal with various requests. As a team, the students had to deal with requests such as this in a calm and professional manner.

After the session, all of the students were debriefed as a group. Students were asked to reflect on their performance as individuals and also collectively as a team. Specifically students were asked if, as a team, their performance was patient-centred, undertook infection control procedures, and maintained patient confidentiality. They were also given global feedback in terms of how they performed and the team member considered that this was done in a supportive way.

All of the students were highly motivated and were able to work together as a team for the benefit of their patients. The level of engagement was extremely high and students were very enthusiastic throughout the simulation. Overall, the team member considered this an excellent session, which met the original objectives. The pharmacy students valued it; they also said it taught them elements of professionalism, as well as enhancing their confidence, communication skills and clinical knowledge.

- **Activity 16: Introduction to medicinal chemistry, Introduction to writing skills (interim visit)**

This was a chemistry tutorial session for first year students focussing on academic writing skills. The aim of the session was to provide students with fundamental skills in academic report writing. The session covered referencing, passive voice, writing grammatical sentences and punctuation. Part of the session also focussed on writing a scientific method and there was also an exercise where students had to comment and appraise different attempts at writing a scientific method.

The students were engaged throughout the session and appeared to understand its relevance and content. Overall, this was a relevant session for the students and will provide the required scaffold for future academic scientific writing. The session objectives set by the School were clear and met.

- **Activity 17: Medicines design and manufacture, laboratory session (interim visit)**

This was a formulation session, which was part of the medicines design and manufacture module. The students had been working on a series of formulations over the course of five to six weeks. This session was one of the final pieces of work within this module. Students had been working in groups of seven with a requirement to produce a liquid/semi-solid product and a solid dosage form from a range of drugs. Students were required to complete pre-formulation work and then execute the formulation followed by quality control to ensure that the products were of the appropriate standard.

The team member observing considered the environment within the laboratory to be very good. Students had their own working space and access to a range of equipment to complete the formulation tasks at hand. There were a number of staff available to support the students. There was good interaction between students and support staff throughout the session. Students were given practical instruction on how to use the equipment within the laboratory and immediate feedback on results and outputs. Students were very engaged with the process and a number of them stated they enjoyed this approach to learning. The team member judged that the work clearly allowed students to achieve the outcomes in Standard 10 around the science of medicines and understanding how that is applied to pharmacy.

- **Activity 18: Developing pharmacy practice, dispensing practical (interim visit)**

The aim of this session is for students to apply their knowledge of legislation related to the supply of medicines and counsel patients on prescribed medicines. The session was planned with a number of different activities including a timed six item accuracy checking exercise, dispensing of three prescriptions, processing of an invoice, and handing out of pre-packed prescription to a patient. It was run with second year students and there were four staff members and four fourth year students to assist students with the tasks. There were also patients involved who participated in a role play with the students.

The team members considered this to be an organised developing pharmacy practice practical and all activities being run were well co-ordinated. Students were engaged with the session and worked independently including in their patient interactions. The patients involved were enthusiastic about working with the students. They shared how they had opportunity to give feedback to the students on one to one basis. The team members considered that the learning outcomes for this session were met.

- **Activity 19: Project introduction journal club (interim visit)**

The aim and objective of the session was to provide direction to third year students regarding the use of journals for their sustained research project. The students had been given the title of their sustained research project four weeks prior to the journal club session. To prepare for this session, the students had been told to identify a paper related to their project title. The students were required to understand and be able to discuss their paper at the journal club. There were a number of discussions between the students and the facilitator, with the facilitator talking about her experiences of undertaking research. This helped to engage the students and aid discussions.

The team member thought the students were fully engaged during this session. The students were able to critically appraise each other's opinions and thoughts without taking the appraisal as criticism but as beneficial discussion. In addition, the students were able to see the connection between what they were doing and what they had

previously done on the course. The students had used evidence review tools they had learnt in semester 1 from completing their, 'charity project' to complete the exercise. They also made the connection between the research they had found and their experiences from their own part time work and placements. The team member judged the aims and objectives of the sessions to be met.

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.

Interim visits cover selected topics and not all standards were discussed. The team did not discuss and any great depth standards 1,2, 3, 4, 6, 7, 8 and 9, but chose to focus on Standards 5 and 10. The range of activities observed gave the team an insight into opportunities available to the RGU students to develop their skills. The satellite visits provided the team members with opportunities to see the students in a range of environments and activities.

Some key points the team would like to highlight related to the professional experience week. The students were highly motivated and engaged throughout the event. They asked relevant and topical questions during sessions with key leaders in pharmacy. The activity undertaken at St Andrews with medical, nursing and pharmacy students, exposed the students to a challenging and realistic high fidelity environment that placed them in a situation where they had to make decisions as a team in a stressful environment. The team considered this important in developing confidence in working with healthcare professionals and patients. These activities are benefiting the students enormously, and this was confirmed during the student meeting. The dementia friends and dealing with challenges sessions were also considered to be high quality experiences relating real life situations to practice, particularly in developing emotional intelligence and empathy with patients. The sessions observed during the visit were also appropriately challenging and delivered at the appropriate level. The students were engaged in the activities and clearly articulated how what they were doing was related to patients and patient safety. This was observed in all years.

The level of meaningful patient engagement is to be commended. The students clearly stated, how this was developing their confidence and they appreciate the opportunity to meet these patients. The team was particularly impressed with the early stage these students are able to interact with the patients and see this as good practice. The students also commented positively on the sessions they have with other healthcare professionals especially the St Andrews sessions with the nurses and medics. The students however said this was limited only to a number of students and it was a pity that not all students could access these sessions. The students mentioned that the online IPE on Campus Moodle was a good idea and very useful but not everyone was aware of this IPE opportunity. The team heard yesterday of the developing plans of embedding meaningful IPE in each year at RGU and we encourage the School to progress with these plans to ensure they are fully embedded at the next visit.

The students described variable experience in the placements and have shared with us that they have fed back to you their concerns. It is clear the staff endeavour to address these concerns and make changes where appropriate. We note your plans to develop the professional experiences week and we encourage you to continue with this.

The School shared with the team the changes in Scottish education policy with potential adjustment to funding. The School also shared information about changes in the university with the current voluntary severance scheme. Both of these are outside the control of the school. With the current staffing situation, this could potentially put the School in a vulnerable position especially with plans for redesign and development of meaningful clinical engagement. The team encourages the university to keep these in mind when making decisions about future staffing and resources. The team commends the university on the clear investment in the school to produce some high quality resources that students benefit from. However, the team have decided that RGU must formally inform the GPhC of the outcome of this review at the end of this period.

The team was satisfied that the curriculum is appropriately integrated to continue to meet the standards and looks forward to the developments to the curriculum to further embed this approach to integrated learning. The students clearly articulated how they are developing as integrative learners which is being strongly supported by the teaching team and the integrated curriculum.

Finally, the team was impressed with the students they met during the visit. The students came across as intelligent, articulate and mature. They clearly appreciate the support they receive from the staff at RGU who are enthusiastic and are good role models. They could not speak more highly of the team at RGU and are very proud of their school of pharmacy.

Appendix 1 – Activities observed by the Accreditation team

The following is the list of activities observed by the accreditation team based on information provided by RGU School of Pharmacy.

Activity 1: Project introduction: Charities day (satellite visit)

Session aims

In this session 3rd year students give group presentations in the morning about research their charity has supported and why people should continue to give money to that charity. This will encompass both science/lab based/quantitative and practice/clinic/qualitative research. Charity representatives and external experts will be available to chat to students during the lunch break. The afternoon session will allow the best three groups from the morning session to present again and be judged by a panel of external experts with the best overall receiving a donation to their charity.

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

This module builds on knowledge developed elsewhere in the course and links directly into their Stage 4 research project .

Assessment

This activity is assessed by a presentation.

Relevant standard 10 outcomes

10.1

a. Recognise ethical dilemmas and respond in accordance with relevant codes of conduct.

10.1

g. Contribute to the development of other members of the team through coaching and feedback

10.2.1

a. Access and critically evaluate evidence to support safe, rational & cost effective use of medicines

g. Contribute to research and development activities to improve health outcomes

Activity 2: Integrated pharmacy practice (satellite visit)

Session aims

Small group session exploring communication issues and person-centred care in an interactive way. This will involve role-play on dealing with challenging behaviours, using poetry to explore “what might it be like to be you?” and use of SBAR technique.

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

Communication and consultation skills are introduced in Stage 1 and are built on throughout the rest of the course throughout modules. Students are supported in developing communication skills by using simulated patients and on placement.

Assessment

Relevant standard 10 outcomes

10.1

a. Recognise ethical dilemmas and respond in accordance with relevant codes of conduct.

10.2.1

e. Collaborate with patients, the public and other healthcare professionals to improve health outcomes.

10.2.2

g. Communicate with patients about their prescribed treatment.

10.2.5

b. Reflect on personal and professional approaches to practice.

Activity 3 (incorporating activities 3.1 – 3.8): Professional experiences week

This description incorporates the activities described from 3.1 to 3.8 in the main body of the report.

Session aims

The Stage 4 Professional Experiences week is incorporated into the module Consolidating Pharmacy Practice (PHM132). The aim of this module is to consolidate the knowledge, skills and attitudes necessary for the transition to preregistration and the student's future as a pharmacist. The content of the module is based around three key areas of the GPhC pre-registration training performance standards: personal effectiveness, interpersonal skills and medicines and health.

The Stage 4 Professional Experiences week includes a mixture of on-campus and off-campus activities including elective sessions. Thirteen organisations across Aberdeen host a number of students and they are invited to select to visit those that interest them (see detail of activities below). The initial intention at accreditation in 2013 was to have this as a 1 week placement. During 2013/14 (the first year of delivery of all stages of the new course), because of a focus on implementing the new 1 week, stage 3 placement for all students in March a week of professional activities including simulation and short visits to different areas of practice (i.e. not to our traditional placement hosts) was created. It was felt that this would create less additional pressure on our placement providers during this first year of delivery. Feedback on the week from students and external partners was overwhelmingly positive and students felt that they got much more out of this week than from a traditional 1 week placement in 1 or 2 sites. As a result, the format was retained and has been developed year on year.

Monday:

Involves an intensive community pharmacy simulation which simulates the real-life pressures on a responsible pharmacist in a safe environment (including difficult patients and prescriber interventions, whilst dispensing and delegating tasks to others) (see poster below).

Other activities on that day include:

- a session with expert patients
- Dementia Friends training
- Hospital medicines reconciliation exercise

These activities will take place on a rolling basis throughout the day.

Tuesday (pm):

Visit with 12 students to Maggie's Centre, ARI, Aberdeen.

Friday:

Involves a conference style professional event where students share their experiences of the week and then a number of external key-note speakers will present and facilitate discussions about different aspects of the pharmacy profession.

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

The week is delivered in line with the Professional Experiences Strategy presented in 2013. Professional experiences aim to provide the student with a range of learning opportunities involving patients and health professionals which cannot be provided by members of academic staff. These experiences both on and off campus supplement the course syllabus provided by academic staff and allow them to integrate academic studies with real life practice. Students are advised of the many potential benefits to professional experiences which include:

- developing knowledge, skills and professional attitudes
- broadening experience of different models of pharmacy practice
- increased awareness of the NHS and the roles and activities of health professionals
- developing an awareness of current issues within the profession
- considering the patients' perspectives
- developing communication skills (with patients and health professionals)
- developing life long learning skills and a reflective approach to everyday practice

Assessment

Assessment of professional skills development through the Professional Experiences Programme, including placement sessions, is integrated within module assessments through the use of reflection (essay or e-portfolio, problem-based learning or skills based assessments (OSCEs) with a view to ensuring that students acquire the skills for placement activities and work based learning. They are used to test clinical performance and competence in skills such as interpretation of data, communication skills and prescribing. There are clear procedures to address any concerns about patient safety and assessment criteria are explicit that unsafe practice automatically results in a failure regardless of performance in other aspects of the assessment. There is also a quality assurance programme which provides an opportunity for ongoing appraisal and development of the network of education and training practitioners.

Relevant standard 10 outcomes

This was not provided

Activity 4: Foundations in pharmacy practice, responding to symptoms (satellite visit)

Session aims

This activity forms part of the first year module Foundations in Pharmacy Practice. Students are introduced to responding to symptoms in two parallel sessions.

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

Students are introduced to responding to symptoms, OTC medicines and resources. Dealing with minor illness is dealt with in depth in Stage 3 where students are expected to draw on knowledge from other modules.

Assessment

This was not provided

Relevant standard 10 outcomes

10.2.1

e Collaborate with patients, the public and other healthcare professionals to improve health outcomes.

10.2.2

f Provide, monitor and modify prescribed treatment to maximise health outcomes.

i. Record, maintain and store patient data.

j. Supply medicines safely and efficiently, consistently within legal requirements and best professional practice.

10.2.5

b. Reflect on personal and professional approaches to practice.

Activity 5: Integrated physiology, lab tutor (satellite visit)

Session aims

In this laboratory the student/s will become familiar with several techniques that are used clinically to assess autonomic nervous system (ANS) function. These include:

- measuring changes in skin potential (sweating) in response to peripheral nerve stimulation and other stressful stimuli (test of sympathetic function).
- measurement of heart rate variability (HRV) in response to deep breathing, the Valsalva manoeuvre, and changes in posture (assessment of sympathetic and parasympathetic nervous systems).
- examination of pupillary reflexes (test of parasympathetic function).

Students work in small groups of three, and work through the lessons after logging onto the relevant web page. Throughout the lesson, feedback is provided for relevant questions, but only after the group has committed their responses.

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

This exercise highlights the link between physiological assessment and function, at a systems level and reinforces concepts of how receptor mediated signalling may explain this functional effect. This aim relies on students using knowledge gained in first semester of Stage 1 and will be revisited in Stage 2 with the emphasis on how dysfunction and the relevant therapeutic treatment of these systems may be determined using physiological assessment.

Assessment

Assessment of PASS/FAIL is made on the ability of the student to follow instruction to complete the pre-lab quiz, set up equipment (which many have never seen before), make relevant recordings and address the questions posed by their recordings. Parallel sessions introduce the students to pharmacokinetics via ADME, with all ADME lessons developed in house on Lt. These run throughout the semester and all groups alternate between lab based and kinetic lessons. To successfully pass Component 2, each student must complete all the Lt lessons (both lab based and kinetics).

Relevant standard 10 outcomes

10.1

e. Demonstrate how the science of pharmacy is applied in the design and development of medicines and devices.

10.2.2

a. Identify and employ the appropriate diagnostic or physiological testing techniques in order to promote health.

10.2.3

k. Work effectively within teams to ensure that safe and effective systems are being followed

10.2.4

c Identify and employ appropriate diagnostic or physiological testing techniques to inform clinical decision making

10.2.5

g Contribute to the development and support of individuals and teams

Activity 6: Pharmaceutical microbiology, laboratory session (satellite visit)

Session aims

The aim of Pharmaceutical Microbiology is to develop knowledge and understanding of pharmaceutical microbiology and its integration into healthcare. It is known that antimicrobial activity of an agent can be potentiated or inhibited by other compounds. The aim of the activity is to undertake an experiment to demonstrate the phenomenon of synergy (potentiation) and antagonism (inhibition). Students will be examining the impact of EDTA on potentiation of benzylpenicillin activity and also the impact of Tween 80 (polysorbate) as an antagonist to the action of the preservative benzylkonium chloride. As important as the results, the students will be developing their practical skill in aseptic manipulation in preparation for their practical Objective Structured Microbiology Examination at the end of semester.

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

This was not provided

Assessment

This was not provided

Relevant standard 10 outcomes

10.1

e. Demonstrate how the science of pharmacy is applied in the design and development of medicines and devices.

Activity 7: Therapeutic delivery, laboratory session (satellite visit)

Session aims

The observed activity is a laboratory problem-based learning session (mini-project). The module aims to develop an understanding of the techniques pertinent to advanced drug delivery, gene technology, pharmacogenomics and proteomics and the ability to evaluate their application to the improved design, delivery and efficacy of medicinal products. This particular coursework component forms 20% of the module content and focusses on delivering therapeutics in a way that is right for the patient; safe, painless, reliable, targeted and efficient.

MPharm 3 students undertake a laboratory based, mini-project in allocated groups of 6-7 students over a period of 6 weeks. Each session lasts three-hours and the students have all the resources of a formulation laboratory at their disposal. The students are presented with a general title, brief background, set of objectives and some directed reading (a list of the projects and named supervisors are attached). Each team is expected to survey the literature, design and perform experiments in drug formulation and characterisation, delegate work, discuss findings and undertake further work as necessary. Academic and Technical Staff are available during the sessions for consultation and advice, not to directly instruct. As a group, the students require to initiate and direct their own work as much as possible.

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

Therapeutic delivery builds on specific work carried out in previous modules including *Physicochemical Principles Of Pharmacy (PH1134)*; *Introduction to Medicinal Chemistry (PH1133)*; *Medicines Design and Manufacture (PH2133)* and *Medicinal Analysis and Aseptic Control (PH2133)*

Assessment

Upon completion of the mini-project, and based upon the group findings, students must produce an individual two-page report in the form of a 'conference abstract', in the style of the Controlled Release Society (CRS) annual conference proceedings.

Relevant standard 10 outcomes

10.1

e Demonstrate how the science of pharmacy is applied in the design and development of medicines and devices.

g. Contribute to the development of other members of the team through coaching and feedback.

10.2.3

a. Ensure quality of ingredients to produce medicines and products.

b. Apply pharmaceutical principles to the formulation, preparation and packing of products.

j. Take personal responsibility for health and safety.

Activity 8: Integrated pharmacy practice, consultation skills session (satellite visit)

Session aims

Consultation skills: Small group session with quarter of Year 3 at a time developing communication and consultation skills using 'difficult' simulated patients and children.

A parallel session will explore students' reflections on a 'medicines-taking' exercise completed over Christmas and New Year. This is the follow up session from the observed session during the satellite visit on 15 December.

Information about the KIDS project was presented in a workshop on Involving patients and the public in pharmacy education at the GPhC conference Meeting our healthcare challenges: educating the future pharmacy team conference on 4 December 2015.

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

Communication and consultation skills are introduced in Stage 1 and are built on throughout the rest of the course throughout modules. Students are supported in developing communication skills by using simulated patients and on placement.

Assessment

This was not provided

Relevant standard 10 outcomes

10.1

a. Recognise ethical dilemmas and respond in accordance with relevant codes of conduct.

10.2.1

e. Collaborate with patients, the public and other healthcare professionals to improve health outcomes.

10.2.2

g. Communicate with patients about their prescribed treatment.

10.2.5

b. Reflect on personal and professional approaches to practice.

Activity 9: Integrated pharmacy practice, placement visit (satellite visit)

Session aims

This will be day 1 of the Stage 3 week long placement in community pharmacies across Scotland. The visit will take place in to MacPhersons Pharmacy, Dundee in the afternoon (with 2 students) after visiting St Andrews.

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

During this placement students will develop an increased level of confidence in communicating with patients and members of the public on a range of healthcare issues. Students will spend a week on a community pharmacy placement where they will start to apply their clinical pharmacy knowledge, further refine their communication and consultation skills and become familiar with some of the services provided through the community pharmacy contract. Activities include responding to symptoms in response to self-care requests and the Minor Ailment Service (MAS), undertaking health promoting activities such as smoking cessation support and access to Emergency Hormonal Contraception (EHC) and the provision of additional services such as substance misuse services.

Assessment

This was not provided

Relevant standard 10 outcomes

10.1

a. Recognise ethical dilemmas and respond in accordance with relevant codes of conduct.

10.2.1

e. Collaborate with patients, the public and other healthcare professionals to improve health outcomes.

f. Play an active role with public and professional groups to promote improved health outcomes

10.2.2

g. Communicate with patients about their prescribed treatment.

h. Optimise treatment for individual patient needs in collaboration with the prescriber

10.2.3

k. Work effectively within teams to ensure that safe and effective systems are being followed

10.2.5

b. Reflect on personal and professional approaches to practice.

Activity 10: Consolidating pharmacy practice, ward simulation (satellite visit)

Session aims

These ward simulations in St Andrews involve pharmacy, medical and nursing students. They are a pilot at present and this is feeding into the evolving strategy and the review of placements.

Thirty-two students from Stage 4 will participate in the pilot in 2015/16.

No further details provided

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

Assessment

Relevant standard 10 outcomes

Activity 11: Introduction to medicinal chemistry, Introduction to writing skills (interim visit)

Session aims

The aim of this session is to learn the basic skills involved in scientific and professional report writing.

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

From Stage 1 through to Stage 4 of the MPharm there is a need to produce written reports in many modules. This culminates in the writing of a substantial thesis based on research in a particular area. This exercise shows how the interpretation of data from scientific and practice related work may be presented and communicated.

Assessment

A substantial written assessment in the form of a full laboratory report based on an experiment conducted in semester 2.

Relevant standard 10 outcomes

10.1

e. Demonstrate how the science of pharmacy is applied in the design and development of medicines and devices.

10.2.1

g. Contribute to research and development activities to improve health outcomes - (development of skills)

10.2.3

a. Ensure quality of ingredients to produce medicines and products

c. Verify safety and accuracy utilising pharmaceutical calculations

10.2.4

h. Provide accurate written or oral information appropriate to the needs of patients, the public or other healthcare professionals

Activity 12: Medicines design and manufacture, laboratory session (interim visit)

Session aims

The aims of this session are to consolidate and apply the knowledge gained during semester one of the MDM module, by designing two dosage forms for a specific drug substance, taking into account the target patient group and drug characteristics.

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

Within semester one of MDM the students conduct six experiments as defined within the coursework manual. At the start of each experiment a flow chart has been presented which shows how the module (and the specific work carried out links to both previous modules and future years in the course including *Physicochemical Principles Of Pharmacy (PH1134)*; *Introduction to Medicinal Chemistry (PH1133)*; *Medicinal Analysis and Aseptic Control (PH2133)* and *Therapeutic Delivery (PH4130)*. The drugs used within the labs are taken from the core list of medicines which are used in year 1 (Section 2.3.1). Students are encouraged to investigate the dosage forms available for the drug substance which has been allocated to them. This means they regularly access the BNF, allowing students to see the links between MDM and other modules.

Assessment

This seven week series of labs is assessed via a group report and an individual summary of the work carried out.

Relevant standard 10 outcomes

10.1

e. Demonstrate how the science of pharmacy is applied in the design and development of medicines and devices.

g. Contribute to the development of other members of the team through coaching and feedback.

10.2.3

- a. Ensure quality of ingredients to produce medicines and products.
- b. Apply pharmaceutical principles to the formulation, preparation and packing of products.
- j. Take personal responsibility for health and safety.

Activity 13: Developing pharmacy practice, dispensing practical (interim visit)

Session aims

To apply knowledge of legislation to the supply of medicines and counsel patients on prescribed medicines. To contribute to the education of peers and ensure the safe supply of medicines

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

Analysing prescriptions for validity and clarity is introduced in Stage 1 and then covered in depth in Stage 2. This is then continued in Stage 3 in relation to hospital medicine charts and then in Stage 4 through placements and peer checking. The supply of medicines is introduced in Stage 1 and covered in depth in Stage 2. Regulatory frameworks of supply of OTC medicines are considered in Stage 3 and in Stage 4 students apply their knowledge of the supply of medicines during peer checking of prescriptions.

Communication and consultation skills are introduced in Stage 1 and are built on throughout the rest of the course throughout modules. Students are supported in developing communication skills by using simulated patients and on placement.

As part of *Consolidating Pharmacy Practice (PHM132)*, Stage 4 students contribute to the education and training of Stage 2 students in *Developing Pharmacy Practice (PH2132)* in accuracy checking dispensed prescriptions.

Assessment

This was not provided

Relevant standard 10 outcomes

10.1

- f. Contribute to the education and training of other members of the team, including peer review and assessment.

10.2.2

- c. Instruct patients in the safe and effective use of their medicines and devices
- d. Analyse prescriptions for validity and clarity
- g. Communicate with patients about their prescribed treatment

j. Supply medicines safely and efficiently, consistently with in legal requirements and best professional practice

10.2.3

m. Supervise others involved in service delivery

Activity 14: Project introduction journal club (interim visit)

Session aims

Each student in each group informs other students in the same group their supervisor of article they plan to discuss at journal club a week in advance of the event. During event, group discussion (journal club) of student selected literature articles.

This contributes towards fulfilling module learning outcome - 'Search and review published literature' by ensuring that students are searching for and reviewing articles which can be used to write their own literature reviews.

The journal clubs allows them to practice literature appraisal and learn from each other and their supervisor in terms of how they read and analysed each paper. It also allows them to work on their communication skills and time management given the number of articles they need to review in a relatively short period of time (4/5 articles in one week).

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

Part of a series of meetings with supervisor during semester 2 (one group meeting and one individual meeting prior to journal club) to ensure students are able to search for, select and review relevant articles for their project title. There are bespoke literature searching and referencing sessions provided by RGU Library staff that all students are required to attend.

This module builds on knowledge developed elsewhere in the course and links directly into their Stage 4 research project .

Assessment

This activity is assessed by a 2000 word literature review containing a search strategy.

Relevant standard 10 outcomes

10.1

- a. Recognise ethical dilemmas and respond in accordance with relevant codes of conduct.
- g. Contribute to the development of other members of the team through coaching and feedback

10.2.1

- a. Access and critically evaluate evidence to support safe, rational & cost effective use of medicines
- g. Contribute to research and development activities to improve health outcomes

Appendix 2 – Documentation made available to the accreditation team for review before and during the visit

The following information was considered by the team prior to the visit.

- i. MPharm degree interim visit submission
- ii. MPharm intake data 2013-15
- iii. 2014-15 MPharm Quantitative results
- iv. 2014-15 MPharm trends
- v. Student numbers progression rates and awards
- vi. Management and staff structure of the school
- vii. Module list
- viii. RGU report on June 2015 sitting of the registration assessment
- ix. NSS data 2013-15
- x. MPharm SSLC minutes 2013-16
- xi. MPharm teaching, learning and assessment strategy
- xii. MPharm guide to assessment processes
- xiii. External examiner reports and CMT response
- xiv. Examples of actions taken on student feedback
- xv. RGU PALS Business Plan
- xvi. Institution led subject review report PALS submission
- xvii. Institution led subject review report
- xviii. Institution led subject review report – School’s response to recommendations
- xix. Supporting material for observations
 - a. Integrated physiology (PH2130) – SCSN abstract
 - b. Introduction to medicinal chemistry (PH1133)
 - i. An introduction to writing skills
 - ii. Lab report guidance 2015

- iii. Snapshot supporting critical writing skills
- c. Medicines design and manufacture (PH3132)
 - i. MDM course work manual 2015-16
 - ii. MDM scenarios for semester two
 - iii. MDM workbook
 - iv. SDB instructions 201516
- d. Project introduction (PH4132)
 - i. Literature review 2016 grid
 - ii. Project introduction timeline summary
 - iii. Project introduction research project
 - iv. Study guide literature review 2016
- e. Public health for pharmacists
 - i. SDB instructions
- xx. Professional experiences strategy
- xxi. Professional experiences week schedule 2016
- xxii. SPCP critical essay
- xxiii. Poster community pharmacy simulation
- xxiv. Drug presentation instructions 2015-16

The following information was provided in the base room during the visit.

- i. Copies of MPharm stage 1 assessments – Physiochemical principles in pharmacy
- ii. Copies of MPharm stage 1 assessments – Foundations in pharmacy practice
- iii. Copies of MPharm stage 1 assessments – Introduction to medicinal chemistry
- iv. Copies of MPharm stage 2 assessments – Clinical pharmacology and therapeutics
- v. Copies of MPharm stage 2 assessments – Developing pharmacy practice
- vi. Copies of MPharm stage 2 assessments – Medicine design and practice
- vii. Copies of MPharm stage 3 assessments – Integrating pharmacy practice
- viii. Copies of MPharm stage 3 assessments – Therapeutic delivery
- ix. Copies of MPharm stage 3 assessments – Project introduction
- x. Copies of MPharm stage 4 assessments – Projects
- xi. Copies of MPharm stage 4 assessments – Specialised pharmaceutical care
- xii. Copies of MPharm stage 4 assessments – General pharmaceutical care provision
- xiii. Copies of MPharm stage 4 assessments – Public health for pharmacists
- xiv. Copies of CPD records across all four years of the course

