Aston University

Addendum to the interim visit report

Supplementary visit, 14 July 2016

Background

At the 2013 reaccreditation visit, while acknowledging that the staff was working towards developing a fully integrated programme, the team remained concerned about the inconsistency in the integration of the programme. Accordingly, a condition had been set that full integration was required to be demonstrated and articulated in order to meet standard 5. During the main interim visit (February, 2016), the academic staff had articulated how the programme was managed but provided little evidence of how horizontal and vertical integration was achieved. While the students could see vertical progression, they had been unable to describe or recognise horizontal integration and perceived the assessments to be modular-based, with little integration. Thus, the team concluded that the condition had not been met and agreed that the University must develop a coherent philosophy and strategy to develop an integrated MPharm degree that would meet standard 5.1 and 5.5a. Following discussions between the GPhC and the School, a supplementary visit was arranged for July 2016; this document summarises the events of that visit and the accreditation team's conclusions. It forms an addendum to the main report.

A pre-visit meeting took place between via teleconference on 1 June 2016 and the University subsequently submitted documentation describing how it intended to meet the whole of standard 5.

The supplementary interim visit

The visit itself took place on site at Aston University on 14 July 2016.

Meeting		Time
1.	Private meeting of accreditation team and GPhC representatives	10:30 – 11:30
2.	Presentation and meeting with key members of staff	11:30 – 13:30
3.	Private meeting of accreditation team and GPhC representatives	13:30 – 14:20
4.	Meeting with the Head of School and the MPharm Programme Director	14.20 – 14:45
5.	Private meeting of accreditation team and GPhC representatives	14:45 – 15:00
6.	Feedback to representatives of Aston University MPharm staff team	15:00 – 15:15

Accreditation team

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

Name	Designation at the time of accreditation event
Professor Ian Marshall*	Accreditation team leader, Emeritus Professor of Pharmacology, University of Strathclyde, Proprietor Caldarvan Research (Educational and Writing Services)
Dr Adam Todd	Accreditation team member (Academic), MPharm Programme Director, Durham University
Professor Barrie Kellam	Accreditation team member (Academic), Professor of Medicinal Chemistry, University of Nottingham

along with:

Name	Designation at the time of visit
Ms Joanne Martin *	Quality Assurance Manager (Education), General Pharmaceutical Council
Professor Brian Furman	Rapporteur, Emeritus Professor of Pharmacology, University of Strathclyde

*attended pre-visit teleconference, 1 June 2016

Course provider

Representatives of Aston University School of Pharmacy. The team met with the following:

Name	Designation at the time of accreditation event
Bartholomew, Professor Paul	Director of Learning Innovation and Professional Practice.
Bush, Dr Joe	MPharm Programme Director and Senior Lecturer in Pharmacy Practice.
Carson, Dr Ray	Senior Lecturer and Undergraduate Medical Studies Coordinator.
Langley, Professor Chris	Head of Aston Pharmacy School and Professor of Pharmacy Law and Practice.
Lewis, Natalie	Clinical Teaching Fellow (Pharmacy).
Mohammed, Professor Afzal	Professor of Pharmaceutics.
Poyner, Professor David	Professor of Pharmacology.
Terry, Dr David	Senior Lecturer in Clinical Pharmacy.
Wood, Dr Kay	Senior Lecturer in Clinical Pharmacy.

The visit

Changes in the School since the interim visit (February 2016)

The team was informed (meeting 2) of the appointment of the new Head of School and subsequent changes to the School's management and reporting structures. Teaching groups had been formed each with its own head, the heads being members of, and reporting to, the now formally established Pharmacy Management Team (PMT), which also included the Head and Deputy Head of School, as well as the MPharm Programme Leader. The Programme Steering Group had been dissolved, its function being subsumed into that of the PMT. Two key programme groups had been established, these being the Programme Development Group (PDG) which is responsible for the next stage of implementation of a new programme, planned to be introduced in 2017 (see below and Appendix 1) and the Placements and IPL Group; the latter group is responsible for the design, oversight and expansion of the placement programme and of IPL (see Appendix 1). Changes to the academic staff had been/are being made; these comprise the appointment of a Clinical Teaching Fellow, a replacement lectureship in pharmaceutics, the increase in FTE of a Pharmacy Practice post from 0.7 to 1, and the appointment of a new, 1-FTE, clinical post.

Meeting the condition imposed following the 2013 reaccreditation visit

The team was told (meeting 2) that following the condition set at the 2013 reaccreditation event, the School had undertaken an extensive review of the MPharm programme, with an anticipated introduction of a new integrated programme in October 2017; the original intention had been to start delivering the new programme in 2016 but Competition and Markets Authority (CMA) constraints requiring students to be given sufficient notice had effectively removed six months of development time. This programme had been described in the documentation and was further outlined in meeting 2 (See Appendix 1 for an outline of the new programme together with the team's comments). The University's new design principles had allowed the development of this programme, which, like the MBChB programme, will be non-modular; this represents a marked deviation from the norm in the University, where most courses comprise a series of small modules to allow exchange with other programmes. In developing its new course design principles, the University now recognises that numerous small modules result in over-assessment and are not conducive to integration; 10-credit modules are now exceptional. The team was told that, because the change to the course is a change in the delivery configuration with the same learning outcomes, the University viewed the proposed curriculum changes as a major modification to the existing programme rather than a completely new programme, and this would be approved through the usual School/University mechanisms in time for a 2017 commencement. It was emphasised to the team that the new course had been designed because full integration of the currently delivered programme was limited by the current structures. However, it was clear to the team from both the documentation and the presentation that the proposed course was a major departure from the one that was reaccredited in 2013 and would therefore require scrutiny by a full accreditation team; clearly, there remained a significant amount of development work to be undertaken, for example, in the final year, where decisions still had to be taken on optionality and the inclusion of a research project. Moreover, it did not address the problem of integration in the current programme, as articulated through the condition imposed in 2013; this was especially important as the last students on this programme will graduate in 2020 The team therefore articulated the requirement for a statement and evidence explaining how aspects of the new programme have or could be incorporated into the current one in order to demonstrate that the current MPharm degree would meet standards 5.1 and 5.5a.

In response to the team's request, the Head of School and the MPharm Programme Director (meeting 4) described how, where possible and appropriate, elements of the proposed new programme have been and will be incorporated into the current programme in order to enhance integration. This is achieved both by more extensive co-teaching of material by staff members from both pharmaceutical sciences and pharmacy practice at all stages and by structural changes resulting in better

within-stage alignment of clinical and science-based material. Several examples were provided to illustrate these approaches. Co-teaching now starts at the beginning of stage 1 in the teaching of calculations (see main report) which commences with a workshop co-taught by staff members from both pharmaceutical sciences and pharmacy practice. There is an increased range of co-taught pharmacology workshops at stages 2 and 3 involving practice and pharmacology staff as well as co-taught practical sessions, such as hand-washing. Nutrition, taught at stage 3, is now co-delivered by both clinical and pharmaceutics staff members and therapeutic drug monitoring teaching involves clinical staff members working with those who teach pharmacokinetics. The final stage includes mini-symposia in which there is the involvement of pharmaceutics staff members with external science staff. Alignment of materials within modules through linkage of themes and common drugs has been undertaken, along with better within-stage realignment of pharmacology and clinical pharmacy teaching at stages 2, 3 and 4; for example, at stage 2, the cardiovascular renal, and hepatic pharmacology is now aligned with clinical pharmacy. The pathophysiology of respiratory diseases considered at stage 2 is now taught alongside the science of particle design and barriers to the delivery of drugs to the lungs; this is revisited at stage 3 where there are sessions on inhaler technique. The teaching of dementia has now been integrated with central nervous system diseases, and at stage 3 professional ethical practice and clinical content have been integrated, for example, in relation to issues around capacity in patients with dementia. Material has been moved from the final stage clinical teaching to the stage 3 teaching of pharmacology to ensure better integration and, in response to student feedback, the stage 3 'Applied Clinical Skills' module (PH3609) has been merged with the 'Pharmacy Health Services; Practice and Policy' module (PH3610). Practical classes on spectroscopy will now be linked to patient cases and also to wider issues in terms of ethics and drug licensing; here, the cases will be introduced with audio/audio-visual media, following which the practical classes will be used to resolve some issues relating to the case, and the subsequent write-up will incorporate clinical and other knowledge for the scenario from the particular stage of the programme. The team was also told that patient engagement throughout the programme will incorporate disease themes being taught at that particular time.

Other areas are being reviewed for future modification, including a review of the clinical stream throughout the programme based on changes made in developing the new course. Pharmacology subjects currently taught at each stage are being reviewed to ensure that patients are seen within the professional placements. There is also a current review of immunology teaching to better integrate with clinical teaching and to integrate core immunology teaching with the science of vaccine development.

Conclusions

The team agreed that the material presented in the documentation and outlined during the visit was significantly different from the current programme. While acknowledging that the University regarded this as a 'major modification', the team formed the view that the philosophy of the teaching, learning and assessment of the proposed MPharm constituted what amounted to a brand new programme. The team acknowledged that the proposed course appeared to be developing towards an integrated curriculum and stated its regret that the work had not begun sooner. As the programme was still in development, the team could not test it at this stage; a full accreditation team will evaluate this provision against the GPhC standards during the next reaccreditation event. Noting the University's intention to commence the delivery of the new MPharm programme in 2017/18, the team's advice was that this programme should be presented for reaccreditation earlier than planned and that this would fall in the next academic year. Moreover, the University should consider the timelines involved in order to ensure the development of a programme that is fit for purpose while minimising self-imposed pressure; this was simply advice and is a matter for the University to decide.

However, to address the condition imposed following the 2013 reaccreditation, the team had been shown a number of examples where the current course has been enhanced by implementing aspects and elements of the aspirational programme. While it had been a significant journey to arrive at its decision, the team concluded that the condition set in 2013 is now met and the current period of accreditation will continue as originally stated until 2018/19.

Appendix 1

Outline of the proposed new MPharm programme

The team was told (meeting 2) that following the 2013 accreditation visit there had been a series of staff 'away days' during which the current MPharm programme had been deconstructed, resulting in the establishment of a Programme Steering Group to design and develop a completely new programme structure, with input from the Medical School. This new programme will comprise four stages corresponding to successive years and a number of longitudinal curriculum blocks, with horizontal integration being achieved using a number of themes based on either disease states or broad concepts relevant to pharmacy; these themes will be used from the second part of stage 1 through to the end of stage 3, with stage 4 comprising a single, integrated block of study with patient care as its broad focus. The first part of stage 1 (Foundation Studies) will serve as the introduction and will address biological and chemical sciences, along with 'Health and Pharmacy', 'Communication Skills' and 'Quantitative Skills'; while students admitted to the programme have high entry qualifications, they demonstrate a variable understanding of the basic sciences and the 'Foundation Studies' has been designed to bring all students to the same level by the end of the first teaching period. 'Health and Pharmacy' will cover professional socialisation, addressing, for example, the role of the pharmacist and healthcare systems. The team was told that integration at stage 1 will correspond to the 'complementary' level on Harden's ladder. The second part of stage 1 and the whole of stage 2 will comprise three longitudinal curriculum blocks ('The Patient'; 'The Medicine'; 'The Professional'); the clinical themes used to support horizontal integration in stage 1 will be 'respiration' and 'the gastrointestinal tract'; stage 1 will deal with single medical conditions, with a focus on OTC provision, so that, as in the present course, students train as 'Medicines Counter Assistants'. In the first part of stage 2, horizontal integration will be facilitated by 'cardiovascular' and 'renal' clinical themes, while the second part of stage 2 will use two successive themes, the first being 'endocrine', a clinical theme, and the second being 'pharmaceutical', addressing 'Drugs to market'; the 'Drugs to market' theme will cover not only bench science but aspects such as critical appraisal, drawing together clinical trials, metabolism and toxicity, drug analysis, marketing and licensing, adverse drug reactions, and pharmacovigilance. The 'Professional' block in each year will be made up of three longitudinal strands, these being professional practice (work-based learning and placements), inter-professional learning, and professional development (professionalism). By the end of the stage 2, the students will have completed their main study of the technology of medicines, so that the 'Medicine' block will not continue into stage 3 which will comprise just two longitudinal blocks, these being 'The Patient' and 'The Professional', with integration supported by four horizontal themes; the first three themes are clinical ('central nervous system', 'infection and antibiotics', and 'cancer') and include material taught in the final year of the current course, while the fourth theme is 'pharmaceutical technology' incorporating several important areas from disparate modules within the current MPharm programme. Noting the removal of the 'Medicine' block at stage 3, the team queried how science would be embedded at this stage and if, for example, students would still need to know chemistry. The senior staff (meeting 2) explained that there will be no dilution of science which will be incorporated into the other blocks. For example, aseptics, drug delivery systems and quality assurance will be included, the last building from analytical techniques covered at stage 2; similarly, while ADME will be covered in the 'Drugs to market' theme at stage 2, this will be built upon and revisited at stage 3. The team was reassured that a knowledge of chemistry will remain vital throughout stage 3, for example, in relation to quality assurance, quality control, and aseptics; this will build from the development and validation of method development covered at stage 2. The team was also given the example of the application of chemical knowledge at stage 3 in relation to understanding the greater water solubility of diamorphine compared with morphine, while requiring to penetrate the blood-brain barrier to exert its action.

The final stage will comprise a single, 120-credit block with the focus of 'the pharmacist as a clinician' with two major, interacting threads, 'clinical pharmacology and therapeutics' and 'prescribing and clinical practice'. Here, the focus will be the application of knowledge to individual patient cases drawn from both secondary and primary care and will incorporate a significant extension of work-based learning in both sectors; patient care at this stage will address complex patients having multi-pathology disease states. This stage will encompass the role of the pharmacist in influencing prescribing and acting as a prescriber; students will be required to make clinical decisions on drug therapy. The team was told that integration from stages 2-4 will correspond to the 'multi-disciplinary'/'interdisciplinary' levels on Harden's ladder. The documentation, as well as the presentation (meeting 2) detailed how there will be a progressive increase in complexity throughout the programme, with material and concepts being revisited and each stage of the programme building on the previous stages. At each stage of the programme, the students will be required to complete a portfolio which covers a number of things including CPD, continuous assessments and practical reports.

Noting the allocation of credits to individual teaching blocks throughout, the team (meeting 2) queried the point of this in a non-modular structure and was told that this was merely indicative of the proportion of the stage contributed by particular blocks; the staff acknowledged that these nominal credit ratings should be removed, as the credits will be awarded through the assessments (see below). In response to the team's wished to know how, with three teaching blocks and four themes at stage 2, students will understand what they are supposed to be learning, the senior staff (meeting 2) explained that students will see the themes but there will be integration of material through the 'Patient', 'Medicine' and 'Professional' blocks, with themes running in parallel rather than sequentially. The 'blocks' will not be perceived as modules and the intention was to avoid students studying for individual blocks; this approach is already used in the current programme.

In response to the team's wish to learn about patient input into the design of the new programme, the senior staff (meeting 2) explained that there had been a number of facilitated 'listening-in-action' patient groups built around scenarios, where the patients had articulated their expectations of what a professional would look like by the end of the course. As explained in the documentation, these groups had developed since 2014, with the establishment the LHS (School of Life and Health Sciences) and AMS (Aston Medical School) Patient Involvement Forum (PIF), formed following the coming together of pharmacy and other health professional programmes at Aston to engage with patients and embed patient involvement within programmes. In relation to student consultation, some had already been undertaken and there is student representation on all appropriate committees; the University's Programme Approval Subcommittee would expect to see evidence of student consultation and the team was told that further development and refinement of the programme will be informed by such consultation.

Practical experience of working with patients, carers and other healthcare professionals

At the interim visit, the team had formed the view that inter-professional education (IPE) in the curriculum was inconsistent and that the level of patient engagement was limited, with reliance on placements for providing this exposure. On that occasion, while welcoming the plans for the patient and public engagement (PPE) and the strategy for IPE, the team had recommended that both an IPE and PPE strategy should be implemented by September 2017. The documentation and the presentation (meeting 2) described progress in these areas, including what was undertaken currently and the activities that are being planned, including those that will be included in the new programme. Hospital placements take place within six different NHS trusts who each co-fund a teacher practitioner (0.5 FTE); community pharmacy placements also utilise community pharmacy-based teacher practitioners and discussions are in progress with two local Community Education Provider Networks (CEPNs) with a view to introducing a new work-based learning environment in GPs surgeries for the 2016/17 academic year. Service Level Agreements are also being developed with hospices. In addition to placements, the programme also assesses students' ability to interact with patients/expert patients/simulated patients through other activities including dispensing practical classes, the first year 'Medicines Counter Assistant' course, patient counselling and OTC consultation and the final year MiniCEx exercises involve simulation of interactions with patients and health professionals. The final year of the new programme will be completely revised and it is

planned to extend the workshop series started at stage 3 to encompass complex patients with multi-disease conditions. From 2016/17 there will be online patient and inter-professional interaction through the 'Patient Knows Best' online platform. Inter-professional learning will involve students of optometry, medicine, audiology and biomedical science, as well as working with qualified nurses. Students in stage 2 must now undertake a centrally organised, LHS-wide Professional Development module. This comprises eight tasks, one of which involves the creation of small groups with the objective of introducing students to an inter-disciplinary approach to optimising patient health; these groups comprise students from pharmacy, optometry, biomedical science, psychology and audiology, and each group is given a patient scenario which they must address together. Work is in progress to develop IPE in collaboration with the new Aston Medical School. The team was told that the MBChB programme would be the Leicester programme and that good progress was being made with the General Medical Council, which will be undertaking its stage 5 visit in January 2017. The report from the interim visit had stated that this would be a version of the Leicester programme; in fact it will be the actual Leicester programme, although that programme itself is undergoing extensive revision, so the Aston programme will be the new version of that programme. The team was told that IPE will be a major theme in the new medical curriculum.

Assessment

The assessment strategy for the new MPharm programme was detailed in the documentation and outlined in meeting 2; it has been designed to ensure integrated assessment at the appropriate depth, with assessment across the teaching blocks, as well as block-specific assessments. The full range of assessment methods will be used, including written examinations comprising multiple-choice questions and short answers questions (SAQs), practical laboratory assessments, communication assessments, critical appraisal exercises, OSCEs and medicines supply dispensing simulations (OSPEs); the type of assessment used depends on the particular learning outcomes to be demonstrated. At the end of the first teaching period of stage 1 there will be three written assessments covering biological and chemical sciences, health sciences and quantitative skills. There will be an integrated written examination at the end of each of stages 1, 2, 3, and 4 as well as individual teaching block assessments at the end of stages 2 and 3. The integrated assessments will comprise single best answers (SBA) and SAQs at stages 1-2, while extended matching questions will also be used at stages 3 and 4. Stages 3 and 4 each will also include an integrated OSCE, which, like the integrated written examinations, will cover material from previous stages. Continual assessment through the students' portfolios of achievement will be employed at all four stages. Querying the need for assessment of the individual blocks at stages 2 and 3 in addition to the respective integrated assessments, the team was told that these block examinations are intended to test depth of knowledge. The team was told that failure of any one of these 10 credit assessments would require resitting that particular block assessment, while failure at referral would require the student to retake the whole stage with re-attendance as all assessments must be passed to progress; it was emphasised to the team that each stage carries 120 credits without modules within each stage, although there is flexibility in the way that the 120 credits is set up. The team noted that the statement in the documentation that the integrated assessments at each stage will include not only material covered at that stage but all knowledge accumulated previously; for example, the stage 1 integrated examination will also cover the 'Foundation Studies' from the first teaching period and the corresponding examinations at stages 2, 3 and 4 will also cover stages 1, 1-2 and 1-3 respectively. The senior staff (meeting 2) explained that this was to avoid compartmentalisation within stages and related to the fact that earlier material will be constantly revisited throughout the course; for example, consideration of 'inflammation' at stage 3 will allow the respiratory and gastrointestinal tracts to be revisited from stage 1.

As detailed in the documentation, the team was told (meeting 2) that standard setting employing the Angoff method will be used for the integrated assessments at stages 3 and 4, while the stages 3 and 4 integrated OSCEs will employ borderline group regression based on global rating and numerical scores; this approach to standard setting is used for all professional courses including the new medical programme.

Managing the transition to the new programme

As the new programme is phased in under the management of the Programme Development Committee and the current programme is phased out, with common staff members across activities for balance and continuity, the problem of student failure on the current programme will need a solution. The team was told that this will be managed on an individual student basis through a number of options. These include early referral or referral of additional credit subject to approval, permission to trail a small volume of credit, which is not normally allowed, and transition to the new programme with additional support.