



Pharmaceutical Society of Ireland

Summary Report of the Statutory Visit to the Level 8 BSc Pharmacy Degree Course at Trinity College Dublin

***In accordance with Part 3, Rule 7(1) of the Pharmaceutical Society of Ireland (Education and Training) Rules
2008***

And

Article 7(2) of the Pharmacy Act 2007

26/27 March 2013

i. Introduction

Stemming from the Pharmacy Act 2007 (as amended) and recognised in Directive 2005/36/EC of the European Parliament of the Council on the Recognition of Professional Qualifications, the Pharmaceutical Society of Ireland (PSI, the pharmacy regulator) has responsibility and powers for the approval of the programmes of education and training of pharmacists.

It is the intention to move from the present 4-year Bachelors degree in pharmacy, plus a 1-year pre-registration internship to a fully integrated 5-year Masters degree in pharmacy (MPharm). The present accreditation concerns the re-accreditation of the 4-year BSc Pharmacy degree delivered by the School of Pharmacy and Pharmaceutical Sciences, Trinity College Dublin (Trinity) against the PSI's Interim Accreditation Standards for the level 8 Bachelor Degree awarded on the successful completion of the 4 year undergraduate pharmacy degree programme approved by the Council of the PSI on 28 March 2012 (PSI Standards). Subsequent to graduation with a Bachelors degree in pharmacy from one of the three schools of pharmacy, interns currently undergo the National Pharmacy Internship Programme (NPIP), consisting of experience in a pharmacy practice setting under the supervision of an approved tutor, plus a programme of blended learning delivered mainly on a distance learning basis. Successful completion of the NPIP leads to the award of the MPharm degree.

ii. Process of review

The visit

The accreditation visit took place on 26th and 27th March 2013 at Trinity College Dublin, and was based on documentation submitted by the provider and evidence gathered during the visit to the College. The accreditation team met in private on 25th March 2013 at PSI House, Fenian Street, Dublin 2.

The accreditation team

The PSI accreditation team comprised:

Name	Designation at the time of visit
Professor Brenda Costall	Team leader, former Pro Vice-Chancellor for Planning and Resources, Deputy Vice-Chancellor and Head of School of Pharmacy, University of Bradford.
Mr Mark Brennan	Director of Undergraduate Studies for Pharmacy and the Director of Learning and Teaching for the Faculty of Health at Keele University.
Mr Philip Green	Former Director of Development and of Education and Registration, Royal Pharmaceutical Society of Great Britain, UK.
Dr JJ Keating	Lecturer in Organic and Pharmaceutical Chemistry in the School of Pharmacy and Department of Chemistry in University College Cork.
Mr Eoghan Hanly	Vice President of the Council of the Pharmaceutical Society of Ireland.
Ms Mary Culliton	Former Director of Advocacy, Quality and Patient Safety Directorate, Health Service Executive (HSE), currently healthcare consultant.
Ms. Norma Harnedy	National Liaison Pharmacist for Drug Addiction (HSE.)
Ms. Seána Hogan	Supervising pharmacist, Boots Pharmacy, 32 Upper Baggot Street, Dublin 4. Part-time lecturer in pharmacology and therapeutics and pharmacy practice in the College of Sciences and Health at Dublin Institute of Technology.
Dr. M. Lynn Crismon	Dean, James T. Doluisio Regents Chair and Behrens Centennial Professor at The University of Texas College of Pharmacy.
along with	
Dr Lorraine Horgan	Head of Professional Development & Learning, PSI.
Professor Ian Marshall	Rapporteur.

Declarations of interest

Ms S Hogan declared that she knew well one of the students who would be interviewed at the student meeting and had worked with her.

Mr E Hanly declared that in 2012 he had been engaged in postgraduate studies at Trinity.

Dr JJ Keating declared that he was a graduate of Trinity at both undergraduate and postgraduate levels.

Ms N Harnedy declared that she ran one of the Trinity postgraduate courses in the past.

The team composition had been made known to the College in advance of the visit and there had been no objections.

The standards

The interim standards for the Level-8 Bachelor degree are arranged under the following headings:

Standard 1 – Pharmacy School and Mission

Standard 2 – Leadership, Organisation and Governance

Standard 3 – Graduates

Standard 4 – Curriculum

Standard 5 – Teaching and Learning Strategy

Standard 6 – Assessment Strategy

Standard 7 – Students

Standard 8 – Resources

Standard 9 – Quality Assurance

The programme

The Trinity BSc Pharmacy programme is arranged over four years with each year of study carrying 60 credits. The curriculum provides a strong scientific foundation for students in the earlier years of the programme followed by a progression towards more clinically-relevant study in the senior years. There is a strong emphasis on pharmaceutical and natural product chemistry throughout the programme. Pharmacy practice is introduced from the outset of the

programme and continues through all years, becoming a more substantial element of the programme in the final year. Most of the teaching is carried out by the School of Pharmacy and Pharmaceutical Sciences (hereinafter referred to as “the School”) with some teaching on physiology, cell and molecular biology, and biochemistry taught by staff of other schools in the Faculty of Health Sciences and staff from schools in the Faculty of Engineering, Mathematics and Science, often on a co-taught basis. The modular structure conforms to the European Credit Transfer System (ECTS). Most modules carry 5 credits with one to three 10-credit module per year. Modules comprise lectures, along with tutorials, workshops, laboratory classes, assignments, directed study programmes, assessments and private study. The blend of these varies according to the requirements of each module. The programme content and delivery is consistent with the EU Directives 2001/83/EC and 2005/36/EC.

Meeting the standards

Standard 1 – Pharmacy School and Mission. The accreditation team agreed that this standard had been met. The School of Pharmacy and Pharmaceutical Sciences at Trinity was the first centre for pharmaceutical education in Ireland and has offered a degree in pharmacy since 1977. It is a constituent school of the Faculty of Health Sciences, the other schools being Medicine, Dental Science and Nursing and Midwifery. The main current objectives of the delivery of undergraduate education are 1) to evaluate the possibility of launching the Pharmacy degree in its new format (5-year integrated programme), 2) to boost the number of Irish candidates with Pharmacy as first preference in their CAO applications through increasing the School’s profile, 3) to increase the number of non-EU students, 4) to improve the quality assurance of the current undergraduate education. Despite the constraints imposed by the current economic and funding situation, the accreditation team observed some evidence for the progress towards the realisation of the above goals in the consideration of the challenges for the future of pharmacy education, the impressive research portfolio, the gradual development of the School, and the efforts to develop links to hospitals and other healthcare provision in Ireland. Both the Vice Provost and the Dean of the Faculty of Health Sciences emphasised the importance of the School to the overall direction of the College and Faculty, citing high-quality students, a popular course, engaged academics, and high-quality research.

Standard 2 – Leadership, Organisation and Governance. The accreditation team agreed that this standard was met. In 2007 all the schools within the College were re-structured into three faculties; Engineering, Mathematics and Science, Arts, Humanities and Social Science, and

Health Sciences. The School is positioned within the Faculty of Health Sciences. At School level the Head of School is formally accountable to the College Board. The Head is supported by the School Executive in the management and co-ordination of all the School activities. The development of the BSc Pharmacy programme is the responsibility of the Course Management Committee (CMC) whose chair is the Director of Teaching and Learning (Undergraduate); the CMC has students representing the Freshman (1st and 2nd Years) and Sophister (3rd and 4th Years) cohorts, and the School Administrator and Chief Technical Officer.

The College has recently instituted a Fitness to Practise policy (FtP) and the School has followed its own Pharmacy Student Code of Conduct/FtP policy since 2009 based on the PSI Code of Conduct and the relevant UK code. Students are informed of the demands of the FtP policy during their orientation and at further stages during the programme. The team was told that the School has a group looking at the School policy with a view to aligning it with the College policy. However, the team was concerned that senior staff from both the School and College appeared unfamiliar with the contents of the Fitness to Practise policy currently in force within the School. Accordingly, it will be a **recommendation** that the School provide clarity on its implementation of its Fitness to Practice policy throughout the entire programme.

Standard 3 – Graduates. The accreditation team agreed that this standard was met. As echoed in surveys carried out by the School, interns and recent graduates interviewed spoke highly of the level of pastoral care provided to them by the School during the BSc Pharmacy programme, rating the support as the best element of the Trinity provision. Graduates had not been aware of any privations caused by the parlous economic conditions being experienced by the College and the School. Graduates opined that there had been too much laboratory work during the programme, particularly in pharmaceutical chemistry and that overall the workload had been very high. A concern of students was the emphasis on summative summer assessment, claiming that there was little continuous assessment. However, the documentation indicated that continuous assessment includes practical classes, dissertations, presentations, research projects, practical examinations, and MCQ tests which all contribute to the final module mark. Students considered themselves reasonably well-prepared from the point-of-view of their level of clinical knowledge to enter the NPIP and eventual practice but agreed that more experiential learning and a lesser emphasis on chemistry teaching during the BSc programme would have been advantageous. It will be a **recommendation** that the School develop more extensive opportunities for structured patient contact for students.

Standard 4 – Curriculum. The accreditation team agreed that this standard was met. The team noted that the philosophy of the curriculum design was to provide students throughout the programme with a comprehensive scientific background upon which the more clinical elements of pharmacy could be built, particularly in the final year. The accreditation team agreed that the programme appeared to be more aligned to the expertise and research interests of the academic staff than to the increasing responsibilities of pharmacists in the delivery of healthcare. This was illustrated by the strong emphasis on chemistry, including natural products chemistry. However, teaching staff appreciated the need to move towards a greater emphasis on practice-based teaching and integration. The team recognised that the research strengths of the School should be imparted to the students but also agreed that there was a clear need for reinforcement of teaching and staffing in the practice of pharmacy, and for it to be integrated into the rest of the programme. Students and graduates interviewed appreciated the value and purpose of the underpinning science to the professional practice of pharmacy; they and teaching staff members told the accreditation team that the relevance of material was always emphasized. However, students expressed a strong desire for more structured experiential learning; this is currently gained mainly through non-mandatory vacation and weekend work along with some relatively unstructured mandatory placements. The team noted that the curriculum consisted of a large number of relatively small modules, mainly carrying 5 credits and with one to three 10-credit modules in each year. The documentation referred to horizontal and vertical integration within a spiral curriculum but the accreditation team was concerned that the number of small modules made the achievement of true integration challenging. The accreditation team agreed that one of the challenges for the School was likely to be the assessment of students' integration of information in such a highly modularized programme structure.

One aspect of healthcare education clearly missing from the curriculum and delivery approach was interdisciplinary learning (IPL) with students of other healthcare professions. Although not explicitly demanded by the PSI Standards such learning is widely accepted as crucial to the development of team-working in healthcare provision. The reason for the non-inclusion of IPL in the BSc Pharmacy programme at Trinity was stated several times, both in the documentation and during meetings with both teaching staff and senior officers, to be logistical difficulties of timetabling pharmacy undergraduates to learn with and from medical and/or nursing students as these students spend the majority of their time off-campus. The accreditation team considered that the lack of interprofessional learning opportunities represented a missed opportunity in an institution with strong medical and nursing provisions. The team considered that the development of interprofessional learning represents a significant future challenge for the School and College.

Students and interns interviewed were of the view that there should be an element experiential learning in Year 1. The Year 2 pharmacy practice module is associated with an out-of-hours community pharmacy visit. Subsequently, in the vacation at the end of Year 2 students spend a week-long period in a community or hospital setting of their own choice. In Year 3 students are required to undertake 4 weeks of practice experience in a community pharmacy or hospital setting, again of their own choice, and complete a report before the start of the following academic year. The team was told that this experiential experience is not referred to as placements as the providers and the establishments are not checked by the School. In Year 4 there is a 3-hour clinical skills hospital attachment involving medical history-taking. The accreditation team considered that there was insufficient control or quality assurance by the School to ensure a meaningful and equitable experience for all students on the programme. Accordingly, it will be a **recommendation** that the School develop more extensive and more fully integrated opportunities for structured patient contact for students.

Standard 5 – Teaching and Learning Strategy. The accreditation team agreed that this standard was met. The Head of School described the teaching philosophy as including: research-led teaching; catering for a range of career destinations; experiential learning; interdisciplinary integration; student partnership; and patient- and disease-focussed. The Senior Lecturer told the team that in future the College wished graduates to have a set of generic skills, the “Trinity Skills” including: inquisitiveness, analytical ability, breadth of reading, ethical responsibility, international outlook, articulacy, literacy and numeracy. The philosophy of the current programme is to provide a thorough grounding in underpinning scientific principles in the earlier years of the programme to form a cohesive basis upon which the clinical and applied aspects of pharmacy may be built later. Nevertheless, there is an attempt to develop a patient-centred focus from the outset of the programme by pharmacy practice teaching being introduced albeit in a limited way in Year 1. It will be a **recommendation** that the School develop greater opportunities for structured patient contact for students.

The overall aim is to ensure that graduates enter the NPIP with the requisite clinical knowledge, skills, behaviours and attitudes. Graduates and interns interviewed confirmed that this aim was achieved although, as indicated in the commentary to Standard 3, Trinity graduates considered themselves as being at a disadvantage in not having experienced OSCEs during their undergraduate programme and having experienced little structured experiential learning opportunities; this former deficiency has now been partly remedied by the introduction of summative OSCEs in Years 3 and 4. It will be a **recommendation** that that the School develop

more extensive and more fully integrated opportunities for structured patient contact for students.

Standard 6 – Assessment Strategy. The accreditation team agreed that this standard was met. The documentation stated that the assessment is aligned with: College policies and procedures; the School mission; the degree and individual module learning outcomes; level-8 standards; the PSI Standards . There were 13 learning outcomes listed in the documentation. The documentation referred to the assessment methodology in many cases adhering to the principles of Miller’s Triangle approach. Thus, the lower levels of the Triangle are assessed by written examinations in most modules, while some modules (PH1007, PH2007, PH4012) have no written examinations and are evaluated by alternative means including learning portfolios, personal reflections, project work and presentations. Summative OSCEs have recently been introduced in Years 3 and 4. Competency tests are used to assess, for example, extemporaneous dispensing. The team was told that the School assesses professionalism and ethical development by on-line, classroom and terminal examination questions. Legislation is assessed by MCQs and essay questions, by the terminal dispensing assessment and by standardised questions in each dispensing session on relevant legal, clinical, professional/ethical and administrative issues. Students’ CPD records are assessed in a formative manner utilising the VLE’s commenting facility. Nevertheless, the team considered that the assessment of professional elements of the programme could benefit from strengthening and hence it will be a **recommendation** that the School ensure that professionalism be inculcated and assessed throughout the programme.

The accreditation team considered that, given the large number of small modules throughout the programme, not only must the assessment load on students be high, but the assessment of students’ ability to integrate information must pose significant challenges. Students told the team that all the summative assessment still took place at the end of the year; they opined that the assessment load would be more manageable if the Semester 1 material were to be examined at the end of the semester. Nevertheless, the team was told that the final dispensing examination required students to draw knowledge from the entirety of the programme and that the 10-credit module Pharmacy Practice IV-2 required integrated answers from students. The team considered that assessment of students’ integration of information in a highly modularized programme structure represented a significant challenge to the School.

Standard 7 – Students. The accreditation team agreed that this standard was met. The documentation stated that Trinity has consistently enrolled students to the School from the top 10% of school leavers. Most students enter directly from the secondary school system through the CAO entrance system. The School does not interview prospective entrants to the BSc Pharmacy programme, but selects on the basis of second-level school performance as evidenced by the CAO points score. Students, interns and graduates all spoke highly of the level of pastoral and academic support offered by the School and indicated that there was always someone available to help in case of problems, including substitute tutors in the case of absence. Students were not aware of any deterioration in student support or services as a result of the current economic situation. The accreditation team observed that at School level pastoral support was organized and delivered through a small group of six College Tutors from the School, overseen by the College Senior Tutor. The team was impressed by the dedication of the tutors some of whom stated that they had over 100 students under their care. While impressed by the dedication and hard work of the tutors, who contact students in a general manner by e-mail or invite them to one-to-one meetings, it appeared to the accreditation team that it is mainly the responsibility of the student to approach their tutor; the team considered this system to be less than ideal. Nevertheless, as stated above, students praised the level of pastoral support offered. Students are represented on the School Committee, the School Executive Committee and the Course Management Committee. There is also a Student Forum with student representatives from each year of the programme along with the School Tutors. The tutors carry issues emanating from the Student forum to module co-ordinators, the School management and executive. The team was told that if problems raised by students were not immediately solvable then explanations were always given.

Standard 8 – Resources. The accreditation team agreed that this standard was met. Over the past 5 years the student intake has ranged from 74-80 per year (average 76). There are 22 members of academic staff (including 3 part-time appointments) supported by 2 teacher-practitioners from a multiple community pharmacy provider. Three of the academic staff members hold full professorships and 7 are pharmacists registered in Ireland with the Pharmaceutical Society of Ireland. 33 staff members from other departments contribute to the teaching of the BSc Pharmacy degree along with 25 external speakers. A technical support staff of 9 and an administrative staff of 6 support the programme. The accreditation team was impressed by the dedication and hard work of the teaching staff but was concerned at the level of work that would be required to develop the impending 5-year integrated degree and to create a truly integrated teaching approach. The accreditation team was particularly concerned at the balance of staff interest and expertise in the School, particularly in the light of the PSI

Standards and the impending move to the 5-year integrated MPharm degree, the latter being to produce pharmacists capable of contributing to the 21st Century developing role of the pharmacist in the healthcare team. The team was particularly concerned at the degree of responsibility placed on the teachers of pharmacy practice, all of which were extremely capable and dedicated but in an area of the School that does not have professorial leadership. The Head of School suggested initiating a fund-raising campaign to provide the necessary funding to endow an additional Chair in Pharmacy Practice. Despite this suggested initiative, the accreditation team agreed that there be a **recommendation** that the College move to the appointment of a professor in clinical pharmacy/pharmacy practice as a matter of urgency.

Standard 9 – Quality Assurance. The accreditation team agreed that this standard was met. The College operates a seven-year cycle of quality reviews of schools. There was a College Quality Review of the School in 2009 conducted by international external reviewers, as part of the 7-year rolling review process. The team considered that the Review concentrated mainly on research, making some focussed recommendations. The Review also concluded that the existing curriculum in pharmacy appeared to be up-to-date and adequate towards the training of pharmacists. The Review recommended that in order to further establish the School as an internationally competitive research unit it was absolutely mandatory to immediately recruit to the vacant chair in pharmaceuticals, to immediately create a new chair in the practice of pharmacy and to eventually fill the vacant chair in pharmaceutical chemistry. While the current moratorium has stifled this potential initiative, the team was told that efforts were in train to address the filling of the vacant chair in pharmaceutical chemistry.

External examiner reports are submitted to the Dean of Undergraduate Studies (Senior Lecturer) and the Head of School for consideration and the process of on-going curriculum review takes account of the feedback from external examiner reports. Similarly, student feedback gathered by the Quality Office, student representatives, staff-student committee, on-line and paper-based surveys are taken into account in curriculum reviews. The closing of the feedback loop is monitored by the Quality Committee in its commitment to continuous quality enhancement. As indicated in Standard 2, the accreditation team was told that although there is a Fitness to Practise policy in place in the College and School the team was concerned that senior staff members from the School and College appeared unfamiliar with the implementation of the Fitness to Practise policy currently in force. Accordingly, it will be a **recommendation** that the School provide clarity on its implementation of its Fitness to Practice policy throughout the entire programme.

Conclusions and recommendations

The accreditation team agreed that the BSc Pharmacy degree delivered by Trinity College Dublin met all the standards approved by the Council of the Pharmaceutical Society of Ireland on 28 March 2012. Accordingly, the accreditation team agreed to recommend to the Council of the PSI that the Trinity BSc in Pharmacy degree be accredited for a period of 5 years with the following recommendations:

- that the School provide clarity on its implementation of its Fitness to Practice policy throughout the entire programme (this relates to Standards 2.2.d and 9.3) – to be implemented by the start of the 2013-14 academic year.
- that the School ensure that professionalism be inculcated and assessed throughout the programme (this relates to Standard 6.1.b) – to be implemented by the start of the 2014-15 academic year.
- that the School develop greater opportunities for structured patient contact for students (this relates to Standards 3.2, 4.6, and 5.1.c) – to be planned by the start of the 2013-14 academic year and to be implemented by September 2014.
- that the College move to the appointment of a professor in clinical pharmacy/pharmacy practice as a matter of urgency (this relates to Standard 8).

The team identified a number of strengths of and challenges for the School as follows:

Strengths:

- A committed and enthusiastic teaching staff
- A dedicated group of School-based tutors
- The activities of the pharmacy practice team

Challenges:

- The development of interprofessional learning
- The embedding of CPD and lifelong learning throughout the programme
- The extension of the use of OSCEs throughout the programme
- The assessment of students' integration of information in a highly modularized programme structure.