

# **Five-Year Integrated Initial Education Programme for Pharmacists in Scotland**

## **Scoping Report**

**April 2017**

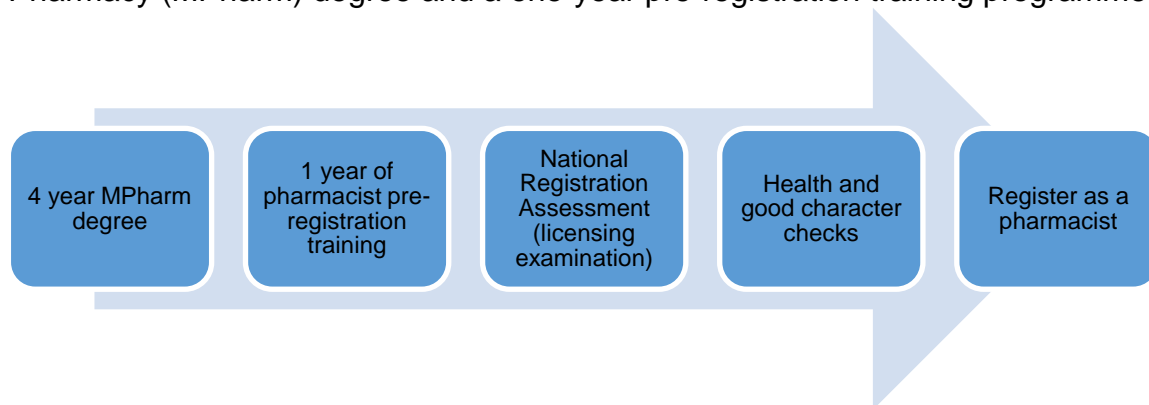
# FIVE-YEAR INTEGRATED INITIAL EDUCATION PROGRAMME FOR PHARMACISTS IN SCOTLAND

## SCOPING REPORT

### Introduction

In response to the vision for pharmaceutical care in Scotland, the Programme for Government commitments and current and future workforce developments, the Cabinet Secretary for Health and Sport, through the auspices of the Chief Pharmaceutical Officer (CPO), established an Advisory Group to explore the evolution of the existing pharmacist four-year undergraduate degree and the one-year pre-registration (4+1) training scheme into an integrated five-year programme to support the initial education of pharmacists in Scotland.

The initial education and training of a pharmacist comprises a four-year Master of Pharmacy (MPharm) degree and a one-year pre-registration training programme.



The two Higher Education Institutions (HEIs) in Scotland who offer an MPharm are the School of Pharmacy and Life Sciences at Robert Gordon University (RGU) in Aberdeen and Strathclyde Institute of Pharmacy and Biomedical Sciences (SIPBS) at Strathclyde University in Glasgow. This is followed by 52-week pre-registration training programme which, in Scotland, is a national professional training year managed by NHS Education for Scotland (NES). Pre-registration trainees then have to pass a national registration assessment and health and good character checks before registering as a pharmacist.

Pharmacy undergraduate and pre-registration education and training in Scotland is highly regarded across the UK and the Schools of Pharmacy, NES and the General Pharmaceutical Council (GPhC) have continued to develop and improve aspects of both undergraduate and pre-registration training. However, there is an emerging view about the need for a stepped change to evolve to a more clinically focused integrated education programme in order to ensure the competencies and qualities of future graduates meet the workforce demands in Scotland. This includes delivering enhanced experiential learning in clinical practice and recognising the value of workplace learning for reinforcing confidence and competence. It also provides opportunities for earlier development and assessment of professionalism, holistic clinical decision-making and consultation and clinical assessment skills.

This report describes the outputs from the initial scoping exercise undertaken by the Advisory Group and provides a background context, as well as the drivers for change, to the current arrangements. The report outlines work undertaken during the scoping exercise and the outcome of engagement with a range of stakeholders including the NHS and staff and students at the two Scottish Schools of Pharmacy. The Advisory Group also considered evidence from both the medical and nursing professions as well as from the School of Pharmacy at the University of Nottingham in order to assimilate lessons that could be learnt from other professions and pilots.

## **Recommendation**

The consensus view from the Advisory Group was to recommend progressing to a five-year integrated initial education programme for pharmacists in Scotland. It was the view of the Group that this recommendation provided opportunities to better prepare new pharmacists for practice in Scotland and permitted better management of pharmacy trainee numbers to meet workforce demands both in terms of initial recruitment and on-going progression. This, in turn, supported Ministerial priorities to strengthen the clinical workforce, especially in primary care. It also supports the development of the pharmacy profession towards achieving the aim that every GP practice will have access to a pharmacist with advanced clinical skills as detailed in the recently published Health and Social Care Delivery Plan, by ensuring the new generation of pharmacists are able to practice in the evolving NHS health and social care landscape.

The Advisory Group acknowledged that there were a number of different models that could be used to provide a platform to deliver the five-year integrated MPharm however they did not recommend how an integrated model would be delivered (for example a 12 month block in year five; two six month blocks, the later in the final six months of year five; or a set of dispersed blocks across the first four years and a final six month block at the end of the fifth year). They agreed that this aspect was better worked through as part of the implementation arrangements.

Advisory Group members also agreed that a Scotland-wide approach to introducing a new model was preferable in common with the Once for Scotland approach promoted by Scottish Government and the service. It could also support a regional accreditation approach going forward and this would help facilitate that from a Scotland perspective.

## **Implementation, transition and addressing any associated issues**

In reaching its recommendation the Advisory Group identified a number of issues and logistical challenges with regards the journey towards a five-year integrated programme which led them to articulate the importance of ensuring a robust transition process which should include matters such as resourcing, culture change, internationalisation and adequate piloting in order to ensure it is introduced in a measured way. The group agreed that it was imperative that the work was taken forward building on the right founding principles, that the benefits of the changes were clearly articulated and that all essential preparatory activities were identified and translated into effective operational plans and that sufficient piloting was included prior to national roll-out.

In forming this decision, the following key issues and priorities were considered and will form the basis of transitional and implementation arrangements:

- Funding: deliver within the existing funding envelope and utilise the current funding arrangements more effectively.
- Numbers: agree and align student/trainee intake numbers including any flexibility in trainee numbers based on workforce needs to ensure NHS Scotland is self-sufficient and to provide for a progression based on merit.
- Attributes: ensure suitable attribute and qualities to meet workforce demands.
- Admissions: develop a standardised admissions process centred on values-based recruitment and including multiple mini-interviews.
- Experiential learning: increase experiential learning in the undergraduate programmes to support preparation for practice. Embed clinical decision-making and clinical assessment skills in the undergraduate MPharm. Increase interprofessional learning.
- Training providers: increase the range of training providers utilised for both MPharm experiential learning placements and pre-registration training, and provide a quality management framework to ensure effective support. Ensure the service supports experiential learning across hospital, community pharmacy and primary care.
- Quality management: develop the existing quality management processes to support the new arrangements as they are implemented.
- International students: ensure the model supports the two Schools of Pharmacy to maintain and manage international students.

### **Implementation outline**

It is proposed that the new five-year integrated initial education programme for pharmacists in Scotland could commence implementation from 2020-2021. The aim would be for the programme to provide coterminus graduation and registration. The first students achieving this status could graduate and register in summer 2025. This will require an alignment of the reaccreditation of the two Schools of Pharmacy by the GPhC who are the pharmacy regulator in Great Britain so that they both occur within the same timescale (2019-2020). Between now and the introduction of the five-year integrated MPharm an enhanced 4+1 model will provide a transitional programme structure.

This proposal prepares for a managed integration of the 4-year MPharm and 1-year pre-registration training programmes, with progress to a fully integrated five-year programme determined by agreement with stakeholders and, in particular, students already enrolled in MPharm degrees in Scotland. The modular Pre-registration Pharmacist Scheme (PRPS) pilot will be rolled out across the transitional period providing experience in the three main patient-facing sectors of practice.

A new funding model will be proposed for the transition period to support both trainees and training providers. Alongside this, improvements to the admissions process will mean that all students who successfully complete their MPharm during the transition period will automatically progress, based on merit, to a NES pre-registration position.

Scottish Government, in collaboration with NES, the service and the two Schools of Pharmacy, will advise on student intake numbers and a values-based admissions process including multiple mini-interviews will be developed that will include the involvement of training providers in the selection of the student intake. The plan is to pilot the admissions process in 2018-2019 and roll out from 2019-2020.

### **Next steps**

- Agree proposal indicative timescales;
- Sign off transitional arrangements;
- Establish a series of working groups to consider: admissions and recruitment; funding; programme development (including experiential learning and interprofessional learning; and quality management and governance;
- Clarify position of international students including visa requirements; and
- Schools of Pharmacy to start planning towards accreditation of a five-year integrated MPharm.

### **Pharmacy and Medicines Division**

#### **Directorate of the Chief Medical Officer**

**April 2017**

## Background

The current initial training of pharmacists consists of a four-year Master of Pharmacy degree (MPharm) followed by a separate 52-week pre-registration training scheme. In Scotland there are two Schools of Pharmacy who offer an MPharm: the School of Pharmacy and Life Sciences at Robert Gordon University (RGU) and Strathclyde Institute of Pharmacy and Biomedical Sciences (SIPBS) at Strathclyde University. The MPharm is a 600 credit integrated Masters Programme, delivered over four years, covering SCQF levels 7–11. Students, when they graduate from the course, will have the knowledge, skills and behaviours to deliver the very best pharmaceutical care for patients, underpinned by sound scientific knowledge and principles.

- The undergraduate MPharm Programme

The overall philosophy at both universities is student-focused and aims to develop a pharmacy student to be a life-long learner and reflective practitioner, with an emphasis, throughout the course, on interprofessional education and other professional experiences. This includes providing some interactions with experienced pharmacists, other healthcare professionals, carers and patients, although time in clinical practice is limited. In part, this is due to the current Scottish Funding Council (SFC) funding model. The SFC provides funding for an MPharm undergraduate degree as a science/laboratory-based subject at price group 2 (£9,336 per FTE), unlike medicine and dentistry, who are funded for two years at price group 3 (£8,274 per FTE) and three years at price group 1 (£16,454 per FTE). Additional funding for experiential learning and placements for medical and dental undergraduate education comes through Additional Cost of Teaching (ACT) funding. There is no equivalent for pharmacy meaning that opportunities for patient contact, placement and other forms of experiential learning are limited and rely on goodwill and personal relationships. On completing the MPharm graduates must undertake a pre-registration training year before registering to practise as a pharmacist. The MPharm degrees at RGU and SIPBS were accredited by the pharmacy regulator, the General Pharmaceutical Council (GPhC), in 2013 and 2014 respectively for the maximum period of six years with no conditions or recommendations. This was against the GPhC education standards published in 2011, 'Future Pharmacists; Standards for the Initial Education and Training of Pharmacists', as part of its statutory responsibilities in approving qualifications for pharmacists across Great Britain.

- The Pre-registration Training Scheme

The NHS Pre-registration Pharmacist Scheme (PRPS) was established in Scotland in 2006 to address identified variations in the quality of training provision and assessment in the pre-registration pharmacist training year and to assist in meeting the needs of the Scottish Government strategy for pharmaceutical care. NHS Education for Scotland (NES) was tasked to organise and manage the overall centralisation of the pre-registration education and training year for trainees in both hospital and community pharmacy settings across Scotland. The primary objective of the scheme was to standardise the training experience for pre-registration trainees in Scotland and to provide a quality management system (QM). Currently, 170 PRPS

trainees are employed in Scotland by their preferred NES approved Training Provider with their salary and associated costs being covered by a training grant paid to the employer by NES.

- Future developments

The GPhC's Standards document also refers to the desire to increase the clinical context of the initial training of registered pharmacists and mentions the potential of a five-year integrated degree combining academic study and pre-registration training being a future possibility. This reflects some of the recent discussions and proposals in England around Modernising Pharmacy Careers (MPC) towards combining the undergraduate degree and pre-registration year to lead to a five-year degree programme with coterminus graduation and registration. There are currently two Schools of Pharmacy in England offering fully integrated five-year degree courses, although they are mainly aimed at international students. That said, the GPhC has been consistent in recognising that the MPharm degree plus the pre-registration training (4+1) model will remain the pre-dominant model in the short term with an integrated degree being a future possibility. In addition, the GPhC Standards have been written in such a way that they support either model as the regulator has not been prescriptive about delivery structures, but instead concentrates on outcomes of the education and training processes.

### **Drivers for change**

Pharmacy undergraduate and pre-registration education and training in Scotland is highly regarded across the UK. However, there is a growing requirement to further enhance the initial education and training of pharmacists to meet the developing role of the profession and the needs of the NHS in Scotland. In addition, concern has been expressed regarding the mismatch of numbers between MPharm graduates from the two Schools of Pharmacy and funded PRPS training places and the consequent risk to programme standardisation as well as the confidence and competence of current newly registered pharmacists to deliver emerging future practice models. In addition, there is an argument that other parts of the UK absorb some of the current over-production and this may not be sustainable as new arrangements are implemented.

The key driver for any change to the current arrangements for the initial education and training of pharmacists has to be rooted in delivering an educational benefit by ensuring trainees are fully prepared for practice in Scotland as the implementation of Scottish Government policy progresses. In addition, there is robust evidence from other clinical professions of the educational benefit in further integration of undergraduate education and pre-registration training with enhanced experiential learning in clinical practice throughout the period of learning. This also allows earlier assessment of professionalism and provides the opportunity to embed the development of clinical skills. There is also an opportunity to further align work on improving the interprofessional learning (IPL) at undergraduate level between Schools of Medicine and Pharmacy with a focus on person-centred care and patient safety to ensure shared values support increasingly collaborative models of practice. NES Pharmacy has already commissioned the School of Medicine at the University of Dundee and the School of Pharmacy and Life Sciences at Robert Gordon

University in Aberdeen to appointed a joint Academic IPL Fellow whose role is to design, deliver and evaluate IPL between undergraduate medical and pharmacy students at both institutions. The first year of the research programme (2014-15) involved a mapping of the standards required of undergraduate education for the professions regulated by the General Dental Council, General Medical Council, General Pharmaceutical Council, Health and Care Professions Council and Nursing and Midwifery Council. The mapping has been subsequently used as a framework for creating and evaluating IPL pilots which allow for reference back to the regulatory standards.

Another important driver has to be better management of pharmacy trainee numbers to meet workforce demands both in terms of initial recruitment and on-going progression. This, in turn, supports Ministerial priorities to strengthen the workforce, especially in primary care. It also underpins the delivery of the commitment outlined in the Health and Social Care Delivery Plan that every GP practice will have access to a pharmacist with advanced clinical skills by ensuring the new generation of pharmacists are able to practice in the evolving NHS care landscape. Finally, there are a number of issues with the current arrangements: the mismatch of student/trainee numbers registered for the degree programme and the availability of NES PRPS training places available within the service resulting in NES not being able to offer a PRPS place to competent students; a growing number of non-funded PRPS places which has the potential to impact on quality; and variable arrangements for non-funded places which were based on an agreement between the trainee and training provider and with the consequences that students may get paid an equivalent salary, they may get paid less, they may not get paid at all or they may be asked to pay the training provider.

### **Comparison with the rest of the UK**

Health Education England (HEE) has been working for the last ten years towards reforming pharmacists' initial education through the Modernising Pharmacy Careers (MPC) Programme with the aim of introducing an integrated five year model. As an interim measure HEE are developing proposals to introduce an enhanced workplace based education infrastructure to support delivery of the pre-registration year in its current format. This will include changes to the recruitment and selection of pre-registration pharmacists with the aim of increasing the principles of values based recruitment across all funded pre-registration pharmacist posts, similar to the NES PRPS scheme. Wales and Northern Ireland have also started exploring the introduction of integrated five year programmes along similar lines.

### **Scoping Project**

The purpose of the scoping project was to consider and agree a work plan for an integrated five year programme to support the initial education of pharmacists in Scotland through engagement with stakeholders to determine the issues to be addressed and the possible options for integration.

A Scottish Government Pharmacy Initial Education and Training Advisory Group was established to enable initial discussion and provide oversight of initial and on-going progress with the scoping project. It included representation from all key



stakeholders including the two Schools of Pharmacy, NES, Scottish Government (workforce), NHS Board Directors of Pharmacy, Community Pharmacy Scotland (CPS), Royal Pharmaceutical Society (RPS), and the GPhC (see Appendix 1).

The remit of the Advisory Group was to consider and agree a work plan for an integrated five year programme to support the initial education of pharmacists in Scotland (see Appendix 2). A work plan was prepared and agreed by the Advisory Group (see Appendix 3).

Beyond the Advisory Group, a Stakeholder Engagement Event was organised to permit discussion with a broader range of individuals and organisations, together with meetings with staff and students at both Scottish Schools of Pharmacy. The focus of these events was on the key issues to be addressed and consideration of model options. All stakeholders were invited to consider the key issues and the following three broad options for programme structure:

Option 1: Maintain separate qualifications (4-year MPharm followed by application for 1-year pre-registration training).

Option 2: Move to a linked qualification (4-year MPharm progressing to 1-year pre-registration training).

Option 3: Introduce an integrated qualification (five-year programme with coterminus graduation and registration).

### **Advisory Group: Meeting One**

The first meeting of the Advisory Group provided an opportunity to reflect on the current situation and to consider some of the high level issues from the perspective of each stakeholder group member. The two Schools and NES provided an overview of their current programmes and some of the opportunities and challenges. The GPhC stated its commitment to devolution and supporting multiple delivery models across GB. The group highlighted issues including: non-funded places and the implications for NHS Boards, aspirations of students and early career pharmacists with regards generalists and specialist roles and skills, lack of placement and experiential learning in the undergraduate courses, service demands especially in primary care, managing application and numbers and the lack of robust pharmacy workforce data. The group also discussed admission processes, the management of graduate entry and the importance of international students to the viability of the degree programmes. It was acknowledged that these key challenges sat against a backdrop of transformational change in terms of primary care and community health services, health and social care integration, the priorities identified through Realistic Medicine and the demand for clinical pharmacy input to general practice. To assist with further discussion, the Group undertook to gather information on how early years' education and training was managed in other healthcare professions.

### **Advisory Group: Meeting Two**

The Advisory Group received presentations on nursing and medical models for workforce planning, placements and experiential learning.

- Nursing: Dr Colette Ferguson and Dr Peter Ward

The presentation described the nursing and midwifery performance management system used by NES. The Nursing and Midwifery Council (NMC) are the regulatory body who set the education standards which shape the content and design of programmes and state the competences of a nurse and midwife. They also approve education institutions and programmes and maintain a database of approved programmes, including quality assurance. The standards for learning and assessment in practice are implemented as a collaboration between the universities and the service. There are a regulated number of hours, and nursing students spend approximately 50% of their time in practice orientated placements. The degree programmes can be three or four years in length.

Student intake targets are set annually through a collaborative process involving Scottish Government, the Executive Nursing Director, the Universities, the SFC, NES, the Care Home sector and associated partnerships. Decision making is based on demand, supply, recruiter's net data, workforce profiling and professional judgment. The majority of students in a nursing degree programme are home students and the number of overseas students is very small. Performance management is conducted by NES on behalf of Scottish Government by monitoring the progression and completion data for all providers. This includes monitoring the performance within and between universities and advising on likely future outputs and optimum intake targets.

The data sources used in the performance management system were described. They included: recruitment and retention data and annual students and mentor surveys. Surveys include an annual final year survey and take into account overall satisfaction, clinical decision making and clinical practice. Quality Management of the Practice Learning Environment (QMPLE) is an online database that has been developed by NES in partnership with colleagues from both practice and universities. It manages information relating to the quality of the practice learning experience through student feedback, educational audits, quality standards for practice placement (QSPP) audits and mentorship data. QMPLE is a tool designed for and used in practice but it also is available to universities and provides accessible and meaningful feedback on areas including placement information.

Mentorship is a very important element to the programme as is partnership and the NMC look for evidence of partnership. There are service level agreements (SLAs) in place for the number and quality of placements. Overall there was agreement that the focus on practice educators, mentorship and the underpinning infrastructure seemed critical to the success of the programme.

- Medicine: Professor Gary Mires

The presentation described the move to outcomes based education at the School of Medicine at the University of Dundee; the use of technology and small group learning in teaching; assessment processes tailored to the curriculum needs; and the student selection process.

With regards the outcomes based approach the aim was to define the product and then design the curriculum. The Dundee graduate is expected to be able to practice as a safe and reflective doctor and have the capability to enter postgraduate training. The focus of teaching and learning throughout all five years of the Dundee undergraduate medical degree is based on over 100 core clinical problems, with students building on defining the diseases that can contribute to these core problems. Years one to three are based around (body) systems in practice and years four and five on preparation in practice. In other words, students start in the early years with basic practice linked to body systems-based learning and there is a transition to clinical practice in the later years with increasing clinical attachments. Students learn to identify normal and abnormal. There is a strong emphasis on integrating science and specialties, with a focus on the patient rather than the system. Years four and five are focused on the transition into clinical practice with all the systems based teaching pulled together. There are a number of core clinical placements: medicine, surgery, obstetrics and gynaecology, child health, psychiatry and general practice along with a student selected clinical component (SSC). The fifth year is basically providing a probation period for practice (Dundee call it a foundation apprenticeship).

Technology is used to enhance student learning. Strategies include an interactive virtual learning environment (VLE), simulation, eLearning, team based learning and virtual patients. Technology underpins all teaching activities. In addition, the timetable links to learning resources. Medical students see patients from week two of year one of the programme. They undertake most of their learning in years one to three in small group problem-orientated teaching activities. Integration is the key: the basic science runs throughout the medical undergraduate programme; it is the emphasis that changes. In years four and five the blocks link to specific disciplines with students moving around the clinical environment however core clinical problem solving remains a key part of the learning. Students also build a portfolio of evidence using the NES portfolio which links to post-graduate training. In year five the emphasis changes and students are prepared for practice as a Foundation Year (FY) doctor: Foundation Apprenticeship with the FY doctors providing supervision. They are embedded in the ward environment and undertake shadowing of FY doctors. They are expected to develop a learning plan and are actively engaged in case load management (working with FY doctors). Students work in interprofessional teams. There is a mid-point review in the fifth year, followed by developing a reflective diary, formative work placed based assessment and a final review.

Reflecting on the presentations the group noted the access to patients for students provided through the approaches in medicine and nursing and the relative paucity of clinical placements in the pharmacy undergraduate course compared to the nursing and medical courses which can be a matter of days in pharmacy compared to weeks and months for the other professions. There was discussion on the Additional Cost of Teaching (ACT) funding provided by the Scottish Government to cover the additional costs of teaching medical undergraduate students within the NHS. NES distributes ACT fund to all NHS Boards and GPs in Scotland who are engaged in undergraduate teaching. NHS Boards are responsible for delivery of clinical teaching to undergraduate medical students and for ensuring appropriate quality standards are met within local education providers. A performance management framework supports the management of Medical ACT and all Boards have to meet the

requirements to receive Medical ACT funding. ACT funding was seen as a great success story due to the fact that it allows for investment at NHS Board level to support the use of NHS staff to teach medical students as part of their undergraduate education.

## **NHS Stakeholder Event**

The NHS Stakeholder Event provided the opportunity to glean the views on a five year integrated initial education programme for pharmacists of a wide range of individuals and organisations involved in aspects of leadership, pre-registration training and/or postgraduate pharmacy education. Participants received presentations from the service providers, Schools of Pharmacy and NES on the current situation and were invited to discuss the key issues and options for change.

The presentations highlighted the following key issues:

- Service: needs of the service for a different type of pharmacist practitioner; and support for increased experiential training;
- Schools of Pharmacy: limited experiential training and IPL; SFC arrangements; and the number of graduates produced from the two Schools is much higher than the available training places making Scotland a net exporter of students and not benefitting the Scottish workforce;
- PRPS: well-respected UK scheme with robust recruitment, consistent training and rigorous QM monitoring with a memorandum of understanding (MoU) with GPhC; only 170 training places currently; no workforce planning; an increasing number of non-funded places (30) with limited input and QM; and the modular programme offers experience in all sectors and produces more rounded pharmacists.

The following is a summary of the themes that were identified as a result of the subsequent workshop discussions.

There was consensus from all groups that the status quo was not an option with unanimous disquiet on the 'shame' associated with a situation where a pharmacy graduate from a Scottish School of Pharmacy cannot access a funded pre-registration position in Scotland. A compelling reason to change was to provide all pharmacy students from the two Scottish Schools of Pharmacy with the opportunity of a funded pre-registration place in Scotland.

Currently the two Scottish schools are in the minority in that they make offers based on academic grade predictions alone, unlike most other schools of pharmacy across GB who have more extensive admissions processes. There was consensus on the introduction of a more robust admissions process with a preference towards interviews as a way of ensuring selection of students with the appropriate values and behaviours.

There was broad agreement on the value of increasing experiential learning. The requirement to increase the experiential learning at undergraduate level was common to all discussion groups with a view from some that placements were critical

in order to underpin the context of the students learning and that leaving that to the equivalent of a pre-registration year to do so was too late.

Representatives of the service were clear on the need for a different type of practitioner with enhanced clinical decision-making and consultation skills for future pharmacy practice. They also recognised their responsibility to support increased experiential training.

The service had very strong views on the importance of interprofessional learning (IPL) throughout the pharmacy course and the need for pharmacists to be competent and confident working in the multi-disciplinary team. The focus needed to include all care settings, including health and social care.

The Schools of Pharmacy expressed concern that the introduction of a five-year fully integrated programme would impact significantly on the attraction of the MPharm course to international students who were essential to ensure the financial viability of the courses. The Schools were also adamant on the need to maintain their own unique individual identities.

There was a view that funding was critical to providing the time and capacity as training provider goodwill was at the limit. The current SFC funding model limits access to additional funding. All of the current PRPS funding is used for trainee salaries.

With regard to the options for programme structure, whilst there were views expressing support for a fully integrated five-year programme with coterminus graduation and registration, the general consensus was a preference to aim for an enhanced '4+1' model as an initial step. Advantages and disadvantages of both were recognised with the former being challenging for the service to deliver in terms of capacity especially in hospital but providing a more flexible model with student placements phased across years. Some participants shared concerns about the logistics of distributing elective modules during the course. Countering that was the argument that if this was a vocational course then experiential learning needed to be integrated and embedded throughout. NES had been developing a modular pre-registration programme offering experience in each sector of practice. There was some concern expressed about whether a more modular arrangement reduced the ability for employers to recruit to their sector however on the other hand others felt it allowed a particular sector to raise its profile with future employees and therefore help address recruitment. The GPhC confirmed that as long as the learning outcomes were met and the final six-month period of learning in practice was maintained then there would not be a problem with any of the proposed options from their perspective. The GPhC also indicated their willingness to support any transitional programme structure.

The discussion triggered a number of questions which were collated for further feedback from event participants. These questions were also used to structure the discussion at staff and student meetings held at both Schools of Pharmacy.

## Meeting with University of Strathclyde staff and students

Staff and students were presented with an overview of the key issues and options for change and were invited to consider these as well as the questions arising from the Stakeholder Event.

- Students

Students stated a preference for a more clinical focus to any experiential learning and for an increase in focus on hospital and primary care opportunities. The students also valued the strong science component that runs through the course. They also appreciated that IPL was important because they would be working with other professions during their careers.

The students could see how having periods of experiential learning at different places in the course would help them apply their learning in practice. They also could see how the final six months in practice would help them consolidate their learning and prepare for the exam. However they also wanted appropriate quality management arrangements.

Students described the pain associated with the uncertainty of applying for pre-registration places. They supported an integrated five year programme with progression to a fifth year on merit as long as there continued to be appropriate incentives for progression (students who work hard and can demonstrate this should not be disadvantaged by those who think they can just coast through barely passing with minimal effort because there is a guaranteed pre-registration place.)

Students wanted reassurances over the financial implications but would be prepared to sacrifice the current pre-registration salary for a fairer system.

The students did feel that interviews might help manage the numbers entering into the MPharm course and also encourage the selection of the best candidates.

- Staff

Staff expressed concern that the benefits of a recent course re-design had not been seen as there had been no graduates from the revised course as yet. They were also concerned about the financial implications for students and the ease of any change. Staff sought direction on the skills gap and how this impacts on programme content. They were keen on interviews as part of the admissions process.

### Advisory Group: Meeting Three

The group received a presentation from the University of Nottingham regarding their experience of implementing a five-year integrated MPharm.

#### University of Nottingham: Tom Gray

The presentation described the structure and delivery of their five-year course which was a fully integrated degree focused on science, practice, placements and IPL. The

course had commenced with international students only and their first cohort of ten students was due to graduate in July 2017. The drivers and priorities included the NHS workforce and its demand for demonstrable knowledge, skills, values and behaviours (pharmacists who were professional, flexible, capable and adaptable) and the ambition for patient-centred care recognising multi-professional working across traditional boundaries. Nottingham introduced multiple-mini interviews (MMIs) in 2013 to help recruit students with academic ability as well as appropriate attributes for professional practice.

They had opted for the five-year integrated model because there was strong evidence on the value of experiential learning in reflective learning and practice in a spiral curriculum. EL started from year one, but the real value came from proper placement periods to ensure meaningful, insightful, appreciation of good interprofessional working; students moved from individual to group to team approaches. On years four and five the focus was on professional socialisation: role modelling, reflection, formative and developmental.

The Advisory Group was in agreement that the key issues on why things needed to change had been clearly identified and argued, and there was now a need to consider a proposal for change in order that the practical implications for all stakeholders could be considered. Key issues included: the needs of the service and areas for improvement including admission processes and experiential learning; the student numbers; the finances; the longer term implications of improved workforce planning data; and the general direction of travel for the NHS. The group needed to take into account the emerging role of the pharmacist, how many were needed and then how undergraduate (and postgraduate) education best supported those requirements.

There was a clear view across the group that the status quo wasn't an option. It was agreed to remove the status quo option leaving both the enhanced 4+1 or five-year integrated models be progressed. The group acknowledged the challenges associated with changing culture, and that academic processes and changes to the academic year that would be at odds with their academic institutions would require agreement from the senior management at the universities.

### **Meeting with staff and students – Robert Gordon University**

Staff and students were presented with an overview of the key issues and options for change and were invited to consider these as well as the questions arising from the Stakeholder Event.

- Students

The main issue for the students was being in a position to complete the five years on merit without the risk of being unable to secure a pre-registration post. They thought the consequent reduction in stress levels was very important. The students wanted the assurance that they would complete the five years if they merited it academically.

The affordability or cost of the model to the students was the other issue and whether they could afford it. Concerns expressed included: if salaries were reduced

would there be a guarantee of more training places; would students be able to support themselves during the five-year programme, particularly if there were more experiential learning placements; geographical issues including accommodation and travel costs if experiential learning was not in the vicinity of home or university.

The students saw benefits with respect to both proposed models however their consensus was a preference for the five-year integrated degree, especially from the international students. There was also support for experiential learning to be dispersed throughout the programme, although they wanted it 'weighted' towards the end of the programme so that students had the knowledge base to make the most of them. There was discussion and agreement on the benefits of following up lecture material with experiential learning in practice providing an opportunity to apply the learning in practice. There was some concern expressed, however, about assessments of the student being made too early in the course if the experiential placements included an assessment process.

There was widespread support for increasing IPL in the programme as long as it was done properly i.e. a practical exercise (like a simulation lab, working with other professions) not simply being lectured to with other professional groups.

Students saw interviews as an important element of selection.

- Staff

Overall the staff view was that with the increasingly elderly population, multi-morbidities and polypharmacy implications, alongside the need to provide services to both urban and rural populations there had never been a greater opportunity for pharmacists to play a role, for example the latest commitment to ensure every GP practice has access to a pharmacist input. There was re-assurance on the continued recognition of the value in the integration of science and practice: it was important not to lose sight of the linkage and not too squeeze the science. The integration allowed the focus to move to applied science. One participant summed things up in saying that given the levels of student dissatisfaction with the current system then this was the right time to review things and being able to expose them to mixed environments was a positive development.

#### **Advisory Group: Meeting Four**

A paper describing the two options for change, an enhanced 4+1 or a five-year integrated programme, was presented, and the group were asked to consider their preferred position.

It was recognised that some aspects of this could progress without a national position. Examples included areas such as the admission process and the modular pre-registration programme.

It was agreed that the proposal must be explicit about balancing the numbers and not over-producing pharmacy graduates.



It was suggested that the enhanced 4+1 model could be modified in order to badge it as a five-year integrated MPharm delivered as a 4+1 model. If the service and the Schools were forced to make the links between the undergraduate course and the pre-registration year, then it would continue to move the current Scottish model forward. The idea would be to keep the traditional concept of a final year at the end of the undergraduate course but introduce a linked qualification with coterminous registration and graduation. That would allow better control of the numbers and also help with the international student dilemma. Consideration would need to be given to the status of the students if they exited after four years.

In essence this would provide three options grouped under a five-year integrated model: five-years with a 12-month block; five-years with two six-month blocks; and five-years with a dispersed six month block and a final six month block.

It was agreed that a detailed options appraisal should be prepared for further consideration prior to implementation. Following this, there would need to be an implementation phase with sufficient time to support any changes.

## **Discussion**

The Advisory Group has previously agreed to reject the status quo option (whilst also recognising that nothing actually stays the same) and this narrowed the choice down to two proposals: an enhanced 4+1 or a five-year integrated programme. Whilst funding and student intake numbers were critical the principle decision for the group was with regards determining a high level strategic position. Aspects of the detail could be addressed as part of any implementation programme. In addition there were areas, such as the admission process and the modular pre-registration programme, which had been identified during the course of the discussions that could progress regardless of any national position.

- The Problem

Throughout the stakeholder events concerns had been expressed regarding both the confidence and competence of current newly registered pharmacists to deliver future practice models and the mismatch of numbers between MPharm graduates from the two Schools of Pharmacy and funded PRPS training places and the consequent risk to programme standardisation.

- The Student Perspective

Undergraduate students and pre-registration pharmacists supported the idea of either a linked 4+1 qualification or an integrated five-year qualification, acknowledging that change from the status quo was needed. International students, in particular, saw an integrated five-year model not as a barrier but an opportunity to gain coterminous graduation and registration as a pharmacist. However, all of them stated a preference for the five-year integrated model as long as progression was based on performance as a way of maintaining motivation and focus. All groups also were prepared to accept a reduced wage or bursary during the equivalent of any pre-registration training as long as it was enough to live on and that the money saved was used to fund additional student places as a result. Importantly they all

highlighted that there required to be sufficient Student Awards Agency for Scotland (SAAS) funding to support students for five years (including travel and accommodation for placements). Again students valued increased experiential learning which they believed would increase confidence and competency, and also allow students to relate theory to practice. However some had reservations about whether a 6-month block at the end of university, as opposed to 12-months, would mean they were ready for practice although they conceded that it was difficult to judge. There was consensus that increased experiential learning provided more options to work in different sectors and opportunities to contextualise their learning and apply it in practice. Both undergraduate students and pre-registration pharmacists agreed having an interview process at the point of entry to a School of Pharmacy was appropriate. The pre-registration pharmacists requested that the MPharm be re-classed as a 'clinical' degree, thus allowing access to clinical funding streams. They were also keen to see an equivalent of ACT funding for pharmacy allowing training providers to be remunerated and ensuring standards of quality.

- The Training Provider Perspective

Both Schools of Pharmacy expressed a desire to ensure that they provided students with enhanced experiential learning in clinical practice throughout their period of learning accepting the value of workplace learning for reinforcing confidence and competence. They also acknowledged the challenges and difficulties when almost all their current placement provision was delivered on goodwill. There was a view from one of the Schools that as they implemented their redesigned course that it was too early to be having a discussion about future changes and that there was little 'give' in the current programme for any more experiential learning. From a NES perspective one of the key challenges is that the student/trainee numbers registered for the MPharm degree programmes do not match the current pre-registration training places available within the service. Both NES and the two Schools expressed a shared interest in ensuring that the competencies and qualities of future pharmacy graduates meet the workforce demands in Scotland, albeit that pharmacy workforce planning is at a very early stage. They also have a common goal to ensure that all changes are developed within a robust clinical and educational governance framework. There was also consensus on the value of earlier development and assessment of professionalism, holistic clinical decision-making and consultation and clinical assessment skills for future pharmacists

- The Service Provider Perspective

The focus of the service was on ensuring that the competencies and qualities of future graduates met the workforce demands in Scotland: newly qualified pharmacists practicing at the top of their licence. Service providers articulated that a 'day one' pharmacist should be: capable; confident; comfortable; independent / autonomous; able to deliver services; able to recognise their limitations; and be able to work with and in the multidisciplinary team, as well as their own team. Whilst recognising that the undergraduate MPharm courses were continually changing and improving service providers felt progress to date wasn't enough to drive the step change required to build capacity and support the cultural shift required to move the profession forward. They saw designing and delivering a new model of enhanced experiential learning in clinical practice throughout a five-year model as vital to

supporting competence and confidence of early career pharmacists. They were looking for all pharmacy graduates to be closer to an Agenda for Change (AfC) hospital band 6 than they currently were with an early career educational pathway to provide the skills and knowledge to be competent prescribers by early to mid-band 7.

- The Regulator Perspective

The GPhC remit was driven by the regulatory standards and not workforce planning or salary scales (although they remained mindful to the impact of the standards on those areas). The GPhC's focus was currently on integration of science and practice and the benefits of this have been evidenced in the student experience. An area for future focus will be on interprofessionalism. Currently the GPhC accredit both 4+1 and integrated five-year courses. There was a clear message that the integrated five-year course was here to stay, despite the tensions with the international market and associated implications for capacity. The GPhC confirmed that as long as the learning outcomes were met and the final six-month period of learning in practice was maintained then there would not be a problem with any of the proposed options from their perspective. The GPhC also indicated their willingness to support any transitional programme structure.

- The model

The Advisory Group reflected on the purpose of any change. They agreed it was to: further enhance the initial education and training of pharmacists to meet the developing role of the profession and the needs of the NHS in Scotland; and provide better management of pharmacy trainee numbers to meet workforce demands balance the numbers in order not to over-produce pharmacy graduates. At the NHS stakeholder event there had been a clear statement about it being unethical to produce more students than could be accommodated in Scotland and the Advisory group agreed that they wanted to address the inequity in access to pre-registration places in Scotland. Advisory Group members agreed that the pharmacy workforce planning piece of work was at a relatively early stage but there was an opportunity to start to address this going forward.

The GPhC had evidence that the new graduates coming through recently reaccredited MPharm courses were seen to be more competent but there was a view from the service that further progress was required. When GPhC specifically asked the service if enough had been done the answer was no, although they acknowledged that they had seen an improvement. The Group heard that the GPhC would be rewriting the draft initial education outcomes document that they had consulted on in 2013 and that the new outcomes would be a significant step-on from the existing ones. As a result, the Group had the opportunity to reflect on the current and future needs of the service by considering which model could best accommodate the rapidly changing landscape and assist in ensuring future pharmacists were equipped with prescribing and clinical skills. Members acknowledged the importance of experiential learning and wanted to ensure it was of sufficient quality and was provided at appropriate points in the MPharm programme.

Following on from this, a view was expressed that a commitment to educating the future workforce didn't come though as being part of the professional culture in

pharmacy. The problem might be that the conversation continually focused on the model and not the outcomes. Group members agreed that focusing on achieving the outcomes would help the Schools and the service to share ownership of the solution.

Members agreed that student feedback from the events seemed to indicate that being a student for five years was not an issue as far as they were concerned as long as there was sufficient funding. They were also struck by the comments from students at SIPBS who were in favour of the five-year integrated model but concerned about losing their motivation and wanted some process to keep them to account (so in one way competition was valued by them). Therefore, there needed to be some form of incentive for them to progress.

The Group discussed the risks and benefits of the different options that had been presented. Representatives from the service were concerned about whether an enhanced 4+1 model put enough stretch in the system to generate improvement or would it ultimately deliver more of the same. There was agreement from a pedagogic perspective that all the evidence indicated that a five-year integrated model would be the best educational option. This being the case then the next issue was to agree where the experiential learning should be provided.

At the outset of the work the Group had been presented with three options: option one which was to maintain separate qualifications (4-year MPharm followed by application for 1-year pre-registration training); option two which was to move to a linked qualification (4-year MPharm progressing to 1-year pre-registration training); and option three which was to introduce an integrated qualification (five-year programme with coterminus graduation and registration). Option one had been rejected at an earlier stage. The Group considered if there was any mileage in now modifying option two to badge it as a five-year integrated MPharm which was delivered through an enhanced 4+1 model. In other words, keep the traditional concept of a final year at the end of the undergraduate course but introduce a linked qualification with coterminus registration and graduation allowing better control of the numbers and providing a simple solution to the international student dilemma. Consideration would need to be given to a student's status if they exited after four years but that was a conversation that needed to happen anyway. The advantage of this approach was that it forced both the Schools and the service to make the links between the undergraduate course and the pre-registration year which would continue to move the current Scottish model forward.

In essence this suggested a five-year integrated model which could be delivered in one of three ways: a 12 month block of experiential learning year five; two six month blocks of experiential learning the first block to be delivered prior to year five and the second in the final six months of year five; or dispersed blocks across the first four years and a final six month block at the end of the fifth year. Pharmacy students must undertake the final six months in practice as a result of a European Directive.

The Group had considered the risks and benefits of the different model options across the course of their four meetings and had taken evidence from a wide range of stakeholders including students and staff. Key themes from the events included: ensuring equality; being ambitious; delivering what was needed for the future; better mobilising capacity; and supporting culture change. It appeared that the majority of

group members were aiming for a five-year integrated MPharm. Members agreed that an integrated degree would force the service and the Schools to think about the links and bind them together in a shared sense of ownership on delivering the outcomes. However in agreeing this, they acknowledged that further work was required to bottom out the detail of how experiential learning should be delivered, the financing arrangements and how that linked to the admission process, including the numbers. There was also a need to ensure stability moving forward so a robust implementation plan and a clear transition pathway were seen as critical. It was about ensuring the appropriate balance between being ambitious and mitigating against risk and ensuring traction versus defining an appropriate pace. This was best achieved through a robust transition pathway with incremental steps. The Group acknowledged the importance of taking the time needed to prepare the ground for any changes, however, if the pace needed to quicken then that was always an option. The Group had also identified a number of key building blocks such as the current NES modular PRPS pilot, the existing quality management system and existing interprofessional learning activities.

- Transitional arrangements

Advisory group members felt that it was important to be clear about the impact of any changes. There was a view employers may be reticent to move straight to a five-year integrated model. On the other hand perhaps the profession needed to challenge itself. It was clear that both the service and students wanted change. By identifying areas that would challenge the system and mitigation arrangements to ensure against any unintended consequences of change the Group felt robust transitional pathway could be put in place to support a decision to move to an integrated five-year model.

- Experiential learning (EL)

Advisory group members were struck by students' comments about the variability in the quality of undergraduate placements. They identified that ensuring all experiential learning, including interprofessional learning, was delivered to an excellent standard was an important priority by building on the existing NES PRPS quality management arrangements.

There was broad agreement that the modular pre-registration programme provided a useful building block for EL. However there were mixed views about the benefits of providing most of the EL in one year at the end, in two six month blocks or gradually dispersed across the course. One of the Schools was concerned about what would have to come out of the curriculum to accommodate EL however representatives from the service saw the opportunities already emerging from the elective options selected by students on the first cohort of the modular programme and that the matter of how to accommodate this across a five-year MPharm was a practical issue that should be addressed in the transition and implementation phases.

The educational argument reinforced the value of closely aligning learning with the placement experience. There was some discussion about using holiday periods for EL however this may disadvantage students if it was unpaid as it reduced students' ability to generate income to subsidise their study funding. There was some

evidence from a five-year MPharm degree which included two six-months blocks of pre-registration training that demonstrated that the students tended to fare less well in the earlier block but much better in the second six-month block when they were much more confident and able. Members felt that this provided a helpful reassurance to proposed changes to the existing model.

There was a view from some members of the group that this might fundamentally change how pharmacists perceived placements provision as most wouldn't see themselves as academics or an extension of the university. This most likely would require a change in mindset. There were lessons to be learnt from the experience of existing integrated courses and the balance of education and the timing of experience in practice to contextualise learning. There was also evidence of pedagogic benefits when the educational outcomes and EL experience were properly aligned and delivered by training providers who were motivated and enthusiastic. This was supported by evidence from the initial pre-registration student survey which identified that pharmacists who had been tutors for less than ten years were more self-critical and more driven to improve the training they provided.

The Advisory Group heard evidence of the increase in preferences to cross-sector and portfolio working and agreed that this was likely to further accelerate. Overall there was agreement that a more dispersed model for EL allowed students to be exposed to different experiences across the time period and should be deliverable with the right planning and preparation.

- Quality management

All Advisory Group members agreed that the existing NES PRPS quality management system would be the obvious starting point for any new arrangements that may be required. A comprehensive network of accredited training sites and a cohort of experienced tutors were already in place across Scotland. The existing principles of the quality management system could easily be extended to cover either an enhanced 4+1-year model or an integrated five-year model. Work would be required to scope and agree how NES, the two Schools and the service worked together to deliver any new arrangements. In addition, there were other systems in NES such as the nursing system that the group had learnt about that could be adapted to underpin any new measures.

- Funding

At the outset of the work programme Advisory Group members had been informed that any recommendations needed to be implemented from within current available Scottish Government and Scottish Funding Council (SFC) funding envelopes in order to remain cost neutral. The SFC provides funding for an MPharm undergraduate degree as a science/laboratory-based subject at price group 2 (£9,336 per FTE), unlike medicine and dentistry, who are funded for two years at price group 3 (£8,274 per FTE) and three years at price group 1 (£16,454 per FTE). Additional funding for experiential learning and placements for medical and dental undergraduate education comes through ACT funding. There is no equivalent for pharmacy meaning that opportunities for patient contact, placement and other forms of experiential learning are limited and rely on goodwill and personal relationships.

Currently the NHS PRPS scheme resources are almost fully directed towards the employment of 170 pre-registration pharmacists who are employed in Scotland by their preferred NES approved training provider and their salary and associated costs are covered by a training grant paid to the employer by NES. Members agreed that, notwithstanding some concerns about the lack of any new funding, something significantly better could be done with the existing PRPS money. There was some discussion about moving from the traditional science funding.

- International students

The matter of international students had been raised on a number of occasions. Both GPhC and the two Schools advised that the pre-registration training requirements for international students varied: some wanted a UK pre-registration training post, others wanted to go home after they had completed the undergraduate MPharm course. The Group had heard evidence from international students about the appeal of a fully integrated five-year MPharm. They had also learnt about the charging system for international students used by medicine and dentistry and also in the five-year MPharm pilots in England. There was a view expressed about selling a future vision on the value and desirability of having a Scottish five-year integrated MPharm qualification.

- Admissions

The Advisory Group heard that it was likely that the GPhC's new initial education standards would include a requirement to interview prior to admission. Members agreed that values-based recruitment was used across the NHS and it would be a natural extension to introduce it at undergraduate level in both Schools. Members had heard about the use of multiple mini-interviews in medicine and in pharmacy and the evidence for such an approach. They acknowledged that including interviews in the admission process may require some alterations to UCAS deadlines however this wasn't seen as a problem. The issue of poorly performing students was discussed including strategies to identify and support them sooner in the process, alongside existing university exit strategies. It was agreed that an improved admissions process would help identify some potentially unsuitable students before entry to the course. Following on from the Once for Scotland approach, the Advisory Group supported a single overarching process that was institutionally determined in order to maintain the Schools' individual identities.

## **Recommendations**

The Advisory Group members acknowledged the overwhelming impression that people wanted to see positive change. It wasn't that there was anything wrong with existing 4+1 model however there was a need to keep evolving and improving.

## The model

The consensus view from the advisory group was to recommend progressing to a **five-year integrated initial education programme** for pharmacists in Scotland. It was the view of the group that this provided opportunities to better prepare new pharmacists for practice in Scotland and permitted better management of pharmacy trainee numbers to meet workforce demands both in terms of initial recruitment and on-going progression. This, in turn, supported Ministerial priorities to strengthen the workforce, especially in primary care. It also supported the aim that every GP practice will have access to a pharmacist with advanced clinical skills as detailed in the recently published Health and Social Care Delivery Plan, by ensuring the new generation of pharmacists are able to practice in the evolving NHS health and social care landscape.

However this decision was not unanimous and the two Heads of School from both universities asked for their concerns with regards the possible risks of implementing a five-year programme, with coterminous graduation and registration, including potential logistical problems such as resource availability and international student provision which were felt to outweigh any benefits, to be noted. That said, they both acknowledged that an evolution towards a five-year integrated MPharm over a ten year time frame was possible assuming there was due recognition of work to address the potential problem areas including a wholesale change of culture by the training providers. They did not, however, support a shortened journey stating a preference for good pilot studies, robust evidence for progression and apposite resourcing.

The Group did not recommend how a five-year integrated model would be delivered (a 12 month block in year five; two six month blocks, the later in the final six months of year five; or a dispersed set of blocks across the first four years and a final six month block at the end of the fifth year). They agreed that this detail was better worked through as part of the implementation work programme.

Advisory Group members also agreed that a Scotland-wide approach to introducing a new model was preferable in common with the Once for Scotland approach promoted by Scottish Government and the service. It could also support a regional accreditation approach going forward and this would help facilitate that from a Scotland perspective.

In forming this decision, the following key issues and priorities were considered and will form the basis of transitional and implementation arrangements:

- Funding: deliver within the existing funding envelope and utilise the current funding arrangements more effectively.
- Numbers: agree and align student/trainee intake numbers including any flexibility in trainee numbers based on workforce needs to ensure NHS Scotland is self-sufficient and to provide for a progression based on merit.
- Attributes: ensure suitable attribute and qualities to meet workforce demands.
- Admissions: develop a standardised admissions process which is based on values-based recruitment and includes multiple mini-interviews.



- **Experiential learning:** increase experiential learning in the undergraduate programmes to support preparation for practice. Embed clinical decision-making and clinical assessment skills in the undergraduate MPharm. Increase interprofessional learning.
- **Training providers:** increase the range of training providers utilised for both MPharm experiential learning placements and pre-registration training, and provide a quality management framework to ensure effective support. Ensure the service supports experiential learning across hospital, community pharmacy and primary care.
- **Quality management:** develop the existing quality management processes to support the new arrangements as they are implemented.
- **International students:** ensure the model supports the two Schools of Pharmacy to maintain and manage international students. .

### **Implementation outline**

It is proposed that the new five-year integrated initial education programme for pharmacists in Scotland could commence implementation from 2020-2021. The aim would be for the programme to provide coterminus graduation and registration. The first students achieving this status could graduate and register in summer 2025. This will require the two Schools of Pharmacy to apply for reaccreditation with the GPhC which could be aligned to happen within the same timescale (2019-2020). Between now and the introduction of the five-year integrated MPharm an enhanced 4+1 model will provide a transitional programme structure.

This proposal prepares for a managed integration of the 4-year MPharm and 1-year pre-registration training programmes, with progress to a fully integrated five-year programme determined by agreement with stakeholders and, in particular, students already enrolled in MPharm degrees in Scotland. The modular PRPS pilot will be rolled out across the transitional period providing experience in the three main patient-facing sectors of practice.

A new funding model will be proposed for the transition period to support both trainees and training providers. Alongside this, improvements to the admissions process will mean that students who successfully complete their MPharm during the transition period will automatically progress, based on merit, to a NES pre-registration position.

Scottish Government, in collaboration with NES, the service and the two Schools of Pharmacy, will advise on student intake numbers and a values-based admissions process including multiple mini-interviews will be developed that will include the involvement of training providers in the selection of the student intake. The plan is to pilot the admissions process in 2018-2019 and roll out from 2019-2020.

During the transitional phase students will still graduate at the end of the year four and then progress to their pre-registration year. Successful completion of the pre-registration year will permit registration. However, students not wishing to progress to the pre-registration year may still graduate with an MPharm and can pursue pre-registration training out with Scotland if that is desired. Likewise, international students can also graduate at this time.

### **Proposed actions and next steps**

- Agree proposal indicative timescales;
- Sign off transitional arrangements;
- Establish a series of working groups to consider: admissions and recruitment; funding; programme development (including experiential learning and interprofessional learning); and quality management and governance;
- Clarify position of international students including visa requirements; and
- Schools of Pharmacy to start planning towards accreditation of a five-year integrated MPharm.

### **Pharmacy and Medicines Division**

#### **Directorate of the Chief Medical Officer**

**April 2017**

## Appendix 1

### **FIVE YEAR INTEGRATED INITIAL EDUCATION PROGRAMME FOR PHARMACY ADVISORY GROUP MEMBERSHIP**

#### **Chair**

Professor Rose Marie Parr      Chief Pharmaceutical Officer, Scottish  
Government

#### **Advisory group members**

Dr Anne Boyter      Director of Teaching, Strathclyde Institute of  
Pharmacy and Biomedical Sciences

Professor Don Cairns      Head of School, School of Pharmacy and Life  
Sciences, Robert Gordon University

Ms Gail Caldwell      Director of Pharmacy, NHS Forth Valley

Mr Damian Day      Head of Education, General Pharmaceutical  
Council

Dr Ruth Edwards      MPharm Course Leader, School of Pharmacy and  
Life Sciences, Robert Gordon University

Professor Stewart Irvine      Director of Medicine, NHS Education for Scotland

Mr Alex Mackinnon      Director, Royal Pharmaceutical Society

Professor Harry McQuillan      Chief Executive, Community Pharmacy Scotland

Mr David Pflieger      Director of Pharmacy, NHS Grampian

Professor Robin Plevin      Head of Institute, Strathclyde Institute of Pharmacy  
and Biomedical Sciences

Dr Ailsa Power      Associate Postgraduate Pharmacy Dean, NHS  
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Ms Frances Rooney      Director of Pharmacy, NHS Tayside

Professor Anne Watson      Postgraduate Pharmacy Dean, NHS Education for  
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Rona Watters      Workforce Directorate, Scottish Government

**Supported by:**

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Louise McCubbin

Pharmacy and Medicines Division, Scottish  
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Stephen Peddie

Principal Lead Pharmacist, NHS Education for  
Scotland

**Pharmacy and Medicines Division  
Directorate for Chief Medical Officer  
Scottish Government**

## **FIVE YEAR INTEGRATED INITIAL EDUCATION PROGRAMME FOR PHARMACISTS IN SCOTLAND**

### **REMIT AND TERMS OF REFERENCE OF ADVISORY GROUP**

#### **REMIT**

To advise the Chief Pharmaceutical Officer on options to evolve the existing pharmacist four-year undergraduate degree and the one-year pre-registration training scheme into an integrated five year programme to support the initial education of pharmacists in Scotland in response to current and future workforce developments.

#### **TERMS OF REFERENCE**

##### **Aim**

To consider and agree a work plan for an integrated five year programme to support the initial education of pharmacists in Scotland.

##### **Objectives**

- To agree the remit and terms of reference of the advisory group
- To agree the timeline for the work plan of the advisory group
- To consider and advise on:
  - Strengths and weaknesses of existing 4+1 MPharm model
  - What an enhanced 4+1 MPharm model might look like
  - Strengths and weaknesses of an integrated five-year MPharm
  - What an integrated five-year MPharm might look like
  - Barriers and facilitators to change
- To seek stakeholder views on draft proposals for a five year integrated initial education programme for pharmacists in Scotland
- To consider any implementation implications

#### **TIMESCALES**

The advisory group will report to the Chief Pharmaceutical Officer on the options by the end of November 2016 in order to inform plans going forward.

**Pharmacy and Medicines Division  
Directorate for Chief Medical Officer  
Scottish Government**

### FIVE YEAR INTEGRATED INITIAL EDUCATION PROGRAMME FOR PHARMACY WORK PLAN

DATE	EVENT	OUTPUTS	ACHIEVED
Monday 22 <sup>nd</sup> August 2016	First Advisory Group Meeting  - Short presentations from Schools of Pharmacy and NES	<input type="checkbox"/> Consider and agree the Remit and Terms of Reference of the Group <input type="checkbox"/> Consider the membership of the group <input type="checkbox"/> Consider and agree the draft work plan <input type="checkbox"/> Identify any strengths and weaknesses of existing 4+1 model	<input type="checkbox"/> Completed 22/08/16 <input type="checkbox"/> BPSA & SFC to be invited <input type="checkbox"/> Agreed 22/08/16 <input type="checkbox"/> Initial ideas captured 22/08/16
Monday 3 <sup>rd</sup> October 2016	Second Advisory Group Meeting  - Short presentations from NES medicine and nursing colleagues	<input type="checkbox"/> Review progress on work plan <input type="checkbox"/> Consider how other healthcare professionals provide experiential and foundation training (medicine and nursing) <input type="checkbox"/> Explore what an enhanced 4+1 model might look like <ul style="list-style-type: none"> <li><input type="checkbox"/> Admissions</li> <li><input type="checkbox"/> Placements</li> <li><input type="checkbox"/> IPE</li> <li><input type="checkbox"/> +1 component</li> </ul> <input type="checkbox"/> Agree programme for stakeholder event	<input type="checkbox"/> Completed 22/08/16 <input type="checkbox"/> Medical and nursing models considered <input type="checkbox"/> Carried forward to next meeting  <input type="checkbox"/> Completed 05/10/16
Monday 10 <sup>th</sup> October 2016	Stakeholder event	<input type="checkbox"/> Gauge stakeholders views on draft proposals for a five year integrated initial education programme for pharmacists in Scotland <ul style="list-style-type: none"> <li><input type="checkbox"/> Enhanced 4+1</li> <li><input type="checkbox"/> Integrated five-year</li> <li><input type="checkbox"/> Timescales</li> <li><input type="checkbox"/> Next steps</li> </ul>	<input type="checkbox"/> Completed and report circulated for comment

<p>Monday 21<sup>st</sup> November 2016</p>	<p>Third Advisory Group Meeting  - Short presentation from Nottingham University</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Review progress on work plan</li> <li><input type="checkbox"/> Consider the strengths and weaknesses of an integrated five-year MPharm</li> <li><input type="checkbox"/> Explore what an enhanced 4+1 model might look like <ul style="list-style-type: none"> <li>o Admissions</li> <li>o Placements</li> <li>o IPE</li> <li>o +1 component</li> </ul> </li> <li><input type="checkbox"/> Explore what an integrated five-year MPharm might look like</li> <li><input type="checkbox"/> Consider the barriers and facilitators to change <ul style="list-style-type: none"> <li>o Regulations</li> <li>o Funding</li> <li>o Buy-in</li> <li>o Capacity</li> <li>o Assessment</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Completed on 21/11/16</li> <li><input type="checkbox"/> Discussed 21/11/16 and carried forward</li> <li><input type="checkbox"/> Discussed and carried forward</li>   <li><input type="checkbox"/> Carried forward to 05/12/16</li> <li><input type="checkbox"/> Carried forward to 05/12/16</li> </ul>
<p>Monday 5<sup>th</sup> December 2016</p>	<p>Final Advisory Group Meeting - Short presentation from NES on main outputs from the work</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Review progress on work plan</li> <li><input type="checkbox"/> Review and agree draft report</li> <li><input type="checkbox"/> Consider any implementation implications</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Completed on 05/12/16</li> <li><input type="checkbox"/> Completed 05/12/16</li> <li><input type="checkbox"/> Completed 05/12/16</li> </ul>



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