Pharmacy Education to Support Clinical Pharmacy Practice

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Content

• What is clinical pharmacy practice
• Education and training developments
  – Example of experiential curriculum design
  – Foundation training
  – MSc Advanced Clinical Pharmacy Practice
  – Pharmacist Independent Prescribing
• Academic – Practice partnerships
• Training for Trainers
• Continuing Professional Development (CPD)
Pharmaceutical needs

• Appropriate prescribing
• Support for patients to improve medicines adherence
• Chronic disease management
• Polypharmacy
Clinical Pharmacy Practice:

Patients are reviewed and medicines assessed to achieve optimum outcome

Assessment, care plan, follow up evaluation

Clinical medication review

– Patient assessment/needs
  • Clinical data interpretation, medical/drug history, consultation

– Consideration and discussion of options
  • Needs/benefits/risks

– Collaborative decision making for therapeutic plan
  • Prescriber/patient/goals

– Consultation and communication
  • Patient/carer/other professionals

– Patient monitoring and follow up
  • Outcomes/adherence assessment
Clinical pharmacy practice - applied to individual patients?

Effective Treatments \[\rightarrow\] Optimum Outcomes

- Quality of prescription
- Patient adherence
- Monitoring and follow up

Clinical pharmacy requires:

Knowledge of:
- disease processes
- medical terminology
- therapeutics
- pharmaceutical products

Skills in:
- assessment and interpretation of clinical data including laboratory findings
- communication and consultation
- provision of medicines information
- critical thinking and decision making
- pharmaceutical care planning including monitoring of treatment
10 year action plan

“all patients, regardless of their age and setting of care, will receive high quality pharmaceutical care using the clinical skills of the pharmacist to their full potential”

“Patients should receive high quality pharmaceutical care from clinical pharmacist independent prescribers….all pharmacists providing NHS clinical care in the community will have to be independent prescribers working in partnerships with medical practitioners”

“Pharmacists in secondary care and in primary care work together in an integrated way which would be supported by a common clinical pharmacy career structure.”
Progress ..........

• What is clinical pharmacy practice

• Education and training developments
  – Example of experiential curriculum design
  – Foundation training
  – MSc Advanced Clinical Pharmacy Practice
  – Pharmacist Independent Prescribing

• Academic – Practice partnerships

• Training for Trainers

• Continuing Professional Development (CPD)
Education & Training Developments

• MPharm & Pre-Registration Training (5 years)
  • GPhC Standards
  • Integrated experiential learning
  • Interprofessional learning

• Vocational training (foundation level)
  • Competency based learning in the workplace

• Postgraduate degree
  • MSc Clinical Pharmacy
  • MSc Advanced Clinical Pharmacy Practice

• Pharmacist prescribing
  • Independent Prescribing Certificate
  • Consultation & clinical assessment skills
  • Teach and Treat
Future pharmacists

Standards for the initial education and training of pharmacists

Level 1 – Knows. Knowledge that may be applied in the future to demonstrate competence. Assessments may include essays, oral examinations and multiple choice questions.

Level 2 – Knows how. Context-based tests – knows how to use knowledge and skills. Assessments may include essays, oral examinations, multiple choice questions and laboratory books.

Level 3 – Shows how. A student or trainee is able to demonstrate that they can perform in a simulated environment or in real life. Assessments may include objective structured clinical examinations (OSCEs), simulated patient assessments, designing, conducting and reporting an experiment, dispensing tests and taking a patient history.

Level 4 – Does. Acting independently and consistently in the complex situation of an everyday or familiar context. Evidence for this level is showing in this context that one is able to demonstrate the outcomes in a complex everyday situation repeatedly and reliably. Assessments may include OSCEs, taking a patient history and a trainee demonstrating things in the pre-registration performance standards repeatedly, accurately and safely. The trainee needs to be observed doing these things by their tutor and others.

10.7 The initial education and training of pharmacists is extensive and rigorous. After five years it is realistic to expect a person to be competent but not yet proficient or expert.

![Diagram of competency levels: Knows, Knows how, Shows how, Does.]

### 10.2.2 Validating therapeutic approaches and supplying prescribed and over-the-counter medicines

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>MPharm</th>
<th>Pre-reg*</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Identify and employ the appropriate diagnostic or physiological testing techniques in order to promote health</td>
<td>Knows how</td>
<td>Shows how</td>
</tr>
<tr>
<td>b. Identify inappropriate health behaviours and recommend suitable approaches to interventions</td>
<td>Shows how</td>
<td>Does</td>
</tr>
<tr>
<td>c. Instruct patients in the safe and effective use of their medicines and devices</td>
<td>Shows how</td>
<td>Does</td>
</tr>
<tr>
<td>d. Analyse prescriptions for validity and clarity</td>
<td>Shows how</td>
<td>Does</td>
</tr>
<tr>
<td>e. Clinically evaluate the appropriateness of prescribed medicines</td>
<td>Shows how</td>
<td>Does</td>
</tr>
<tr>
<td>f. Provide, monitor and modify prescribed treatment to maximise health outcomes</td>
<td>Shows how</td>
<td>Does</td>
</tr>
<tr>
<td>g. Communicate with patients about their prescribed treatment</td>
<td>Shows how</td>
<td>Does</td>
</tr>
</tbody>
</table>

5.6 The MPharm degree curriculum must include practical experience of working with patients, carers and other healthcare professionals. Practical experience should increase year on year. We are not suggesting that off-site placement visits are the only way to achieve this. Schools should articulate their strategy for meeting this criterion, which may include off-site placement visits, using patients, carers and other healthcare professionals in-class, and simulations.
Example of ½ day hospital activity – Year 2

<table>
<thead>
<tr>
<th>Activity</th>
<th>Theme</th>
<th>Learning outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Patient journey and medications</td>
<td>Describe the processes which are undertaken during the patient journey from hospital admission to discharge to ensure the accurate, safe and timely prescription and administration of medicines.</td>
</tr>
<tr>
<td>2</td>
<td>Patient counselling</td>
<td>Describe their observation of a patient counselling session where important points are emphasised about medicines.</td>
</tr>
<tr>
<td>3</td>
<td>Antimicrobial treatment</td>
<td>Explain the rationale for antimicrobial treatment prescribed for a hospital patient.</td>
</tr>
<tr>
<td>4</td>
<td>Formulary</td>
<td>Describe the rationale for a local formulary, determine if a prescription adheres or not and propose actions to ensure adherence where possible.</td>
</tr>
</tbody>
</table>
Experiential learning

• Students learn best from their own experiences
• Experiences can be enjoyable and motivating
• Contextualises application of knowledge
• Allows development of skills and professionalism
• Exposes students to real healthcare environment
  – Role model practitioners
  – Other healthcare professionals
  – Patients keen to contribute
Development of competency beyond registration (Foundation)

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>1.1 Patient Consultation</td>
<td>2.1 Professionalism</td>
<td>3.1 Gathering Information</td>
<td>4.1 Clinical Governance</td>
</tr>
<tr>
<td>1.2 Need for the Medicine</td>
<td>2.2 Organisation</td>
<td>3.2 Knowledge</td>
<td>4.2 Service Provision</td>
</tr>
<tr>
<td>1.3 Provision of Medicine</td>
<td>2.3 Effective Communication Skills</td>
<td>3.3 Analysing Information</td>
<td>4.3 Organisations</td>
</tr>
<tr>
<td>1.4 Selection of the Medicine</td>
<td>2.4 Team Work</td>
<td>3.4 Providing Information</td>
<td>4.4 Budget and Reimbursement</td>
</tr>
<tr>
<td>1.5 Medicine Specific Issues</td>
<td>2.5 Education and Training</td>
<td>3.5 Follow up</td>
<td>4.5 Procurement</td>
</tr>
<tr>
<td>1.6 Medicines Information and Patient Education</td>
<td>2.6 Research and Evaluation</td>
<td>3.6 Research and Evaluation</td>
<td>4.6 Staff Management</td>
</tr>
</tbody>
</table>

**1. Patient Consultation**
- **Patient Consent**
  - Explain the treatment and patient consent if appropriate
  - Patient assessment
  - Other appropriate management of relevant information to the patient

**1.1.1 Patient Consent**
- **Consultation or referral**
  - Consultation with pharmacist or other health professional
  - Document consultations where appropriate in the patient record

**1.1.1.1 Consultation or referral**
- **Relevant patient background**
  - Advance relevant or available information
  - Medicine history
  - Document an accurate and comprehensive patient history when required

**1.1.1.2 Comments**
- **Provision of Medicine**
  - Ensure the prescription is clear
  - Ensure the prescription is legal
  - Ensure the correct medicine is dispensed
  - Ensure the medicine is dispensed in a timely manner

**1.1.1.3 Comments**
Pharmacy vocational training scheme
Stage 2 Competency Framework

- Development of self
- Aseptic services
- Clinical pharmacy
- Clinical governance/patient safety
- Effective use of medicines
- Dispensing services
- Education & Training
- Medical gases

PHARMINE Report

The 2011 PHARMINE report on pharmacy and pharmacy education in the European Union

Jeffrey ATKINSON, Bart ROMBAUT

Received (first version): 20-Sep-2011
Adopted: 7-Nov-2011

IDENTIFYING AND DEFINING COMPETENCIES

Exploitation of results - recommendations on competency curriculum for professional pharmacists

2011

WP3 Final report
Reflective learning

Reflective Learning in Practice

• Reflection helps identify what you have learnt for similar situations in the future.

• Deep learning is based on reflection on something that you already know and reprocessing this knowledge, which can lead to new ideas.

- How can I use reflection to improve my performance?
- What have I learned from this experience?
- What would I do the same/differently?
- What similarities are there between this situation and others?
- How can I improve the areas which did not go so well?
Seek permission for use from


Why this course?

This new and unique course enables pharmacists (registered with the General Pharmaceutical Council) to come together in a small peer-group learning environment to develop as advanced clinical practitioners. The course is flexible with a choice of classes that look at specific practice and personal development needs.

The course is designed to produce highly skilled practitioners who can improve patient care by driving forward innovation in all areas of pharmacy practice through delivery of the Scottish Government’s Vision and Action Plan: Prescription for Excellence.

The Independent Prescribing (IP) qualification is included within the course as an optional 30-credit module; practitioners who have already completed the IP qualification will receive 30 credits for prior learning and the requirements for each award will be reduced by 30 credits.
CLINICAL PHARMACY COURSE PgDip/MSc

MSc Clinical Pharmacy Practice

1. Overview

2. What will you study

PgCert stage (stage 1)

The first core module of the course, PgCert stage 1, examines the role of a pharmacy technician and skills required to practice effectively.

PgDip stage (stage 2)

During the PgDip stage of the course, you will be required to choose three optional modules out of their programme.

MSc Stage (stage 3)

Students and their clients benefit from the course.

Pharmaceutical Practice Management

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Pharmaceutical Practice Management
For pharmacists in any sector of practice

- Expert Professional Practice
- Collaborative Working Relationships
- Leadership
- Management
- Education, Training & Development
- Research & Evaluation

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<table>
<thead>
<tr>
<th>Competency</th>
<th>Developmental Descriptors</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Advanced Stage I</td>
</tr>
<tr>
<td>1.1 Expert Skills and Knowledge</td>
<td>Demonstrates general pharmacist skills and knowledge in core area.</td>
</tr>
<tr>
<td>1.2 Delivery of Professional Expertise</td>
<td>Demonstrates accountability for delivering professional expertise and direct service provision as an individual.</td>
</tr>
<tr>
<td>1.3 Reasoning and Judgement</td>
<td>Demonstrates ability to use skills in a range of routine situations requiring analysis or comparison of a range of options.</td>
</tr>
<tr>
<td>1.4 Professional Autonomy</td>
<td>Is able to follow legal, ethical, professional and organisational policies/procedures and codes of conduct.</td>
</tr>
</tbody>
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**The RPS Advanced Pharmacy Framework 2013**

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**ROYAL PHARMACEUTICAL SOCIETY**

**FACULTY**

www.rpharms.com/development/faculty
Pharmacist Independent Prescribing

Pharmacist Independent Prescribing

Full Course

The University of Strathclyde is accredited by the General Pharmaceutical Council (GPhC) to provide courses in independent prescribing (IP).

Course details
The course involves pre-residential course activity, distance learning material, two residential periods and a period of learning in practice, under the supervision of a designated medical practitioner. Students will be awarded 30 credit points on completion of the course.

University training
This element of the course is at Scottish Masters (SGM) level 5 throughout and is delivered through two residential periods that will be taught at the University of Strathclyde.

The first residential period (6 days) will comprise four classes, worth five credits each:

- Therapeutics (from a choice of cardiovascular, respiratory disease and infection, rheumatology, diabetes, substance misuse, renal medicine, palliative care)
- Communicating with Patients and Colleagues
- Prescribing and Public Health
- Case Planning

Some assessments will be completed prior to attending the residential period and some will be completed after. Full attendance during the residential period is essential.

The second residential period (1½ days) will normally take place approximately six weeks after the first residential period and will involve peer review sessions designed to demonstrate clinical and ethical practice.

Period of Learning in Practice (PLP)
The aim of the period of learning in practice is to provide students with opportunities to develop competencies in prescribing. This period focuses on the patient groups in which the student is expected to prescribe. The PLP will begin after the first residential period.
A single competency framework for all prescribers

This single prescribing competency framework replaces all previous profession specific competency frameworks published by the National Prescribing Centre

Date of publication May 2012
Date of review May 2014
Patient centred consultation skills

Courses

Future course details for 2014-15 will be advertised in the near future.

To register for one of the above courses or for further information please contact

Karen J. Tietze

Clinical Assessment Skills Courses

In addition to Patient centred consultation skills training, pharmaceutical prescribers are encouraged to attend the NES Pharmacy clinical Assessment skills training – both Core and Advanced.

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Teach and Treat

To support qualified IP Pharmacists who are not actively prescribing

• Observe lead pharmacist – role model
• Run clinic under supervision
• Feedback against self assessment framework
• Run clinic independently
Education & Training Developments

• MPharm & Pre-Registration Training (5 years)
  • GPhC Standards
  • Integrated experiential learning
  • Interprofessional learning

• Vocational training (foundation level)
  • competency based training in the workplace

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Pharmacy Practice Academic Network
NHS-University Joint Board

Participating Boards:
- Ayrshire & Arran
- Borders
- Dumfries & Galloway
- Fife
- Forth Valley
- Greater Glasgow & Clyde
- Lothian
- Lanarkshire
Pharmacy Practice Academic Network
NHS-University Joint Board

To establish and maintain formal links between the NHS and the University to support under and post graduate education, research and practice development.
Education and Practice

• To jointly influence the under and postgraduate curricula to ensure that pharmacy graduates are able to meet the changing needs of the NHS, whilst maintaining academic rigour.

• To formalise and agree the contribution of NHS staff to undergraduate and postgraduate education

• To provide a clinical environment for student learning at undergraduate and postgraduate levels
Education and Practice

• To support students develop clinical and professional skills through direct engagement with pharmacy practitioners within a clinical environment

• To provide opportunities for the continued professional development of both NHS and University staff
Role of the Practitioner – Teacher

- Create a learning environment
- Role model – motivate & inspire
- Design tasks and assessment of skills
- Provide feedback
- Encourage critical thinking
- Encourage self-directed learning
• Expert Professional Practice
• Collaborative Working Relationships
• Leadership
• Management
• Education, Training & Development
• Research & Evaluation
Aim of ESCP SIG Education & Training is to:
- support members who have a role in the education and development of clinical pharmacists who deliver pharmaceutical care to individual patients.
Continuing Professional Development

CPD ≠ CE

- Mandatory → Re-validation
- Learning in practice
- Learning with, from and about others (IPE)
- Learning from incidents
- Problem Based Small Group Learning
IPE – what is it?

“occasions when two or more professions learn with, from and about each other to improve collaboration and the quality of care”

CAIPE 2002 (UK Centre for the Advancement of Interprofessional Education)  
www.caipe.org.uk

EIPEN (European InterProfessional Education Network)  www.eipen.org
Prescribing Safety

• Prescribing errors in hospitals are common (≈ 8%)
  – Franklin et al Postgrad Med J 2011;87:739-45
  – Ryan et al PloS ONE 2014;9:e79802
  – Dornan et al EQUIP report 2009 [www.gmc-uk.org](http://www.gmc-uk.org)

• Pharmacists recognised for reducing errors reaching patients

• Low prevalence of errors reported for prescribing pharmacists (0.3%)
Pilot IPE Masterclass
Prescribing Skills

- Nurses, Pharmacists, Medical students
- Steering group of 2 Pharmacists, 1 Nurse, 1 Dr
- Designed 3 simulated prescribing exercises
- 2 scenarios included simulated patients
- Groups of 1 med student/1nurse/1 pharmacist
- Competences mapped to NPC single competency framework
- Measures of RIPL, self efficacy
- Qualitative feedback
Pharmacy Education to Support Clinical Pharmacy Practice

“If you always do what you’ve always done, you’ll always get what you’ve always had”

Albert Einstein