2011

PHARMINE
Pharmacy Education in Europe

DEXP4

IDENTIFYING AND DEFINING COMPETENCIES

A clear map for scientific and professional competencies as applied to hospital pharmacy

2011

European Association of Hospital Pharmacists (P7)
School of Pharmacy, London (P3)

Table of Contents

List of abbreviations

WP4

Preface

1. WP4 AIM and OBJECTIVES

DEXP4.1

2. WP4 WORKING METHOD

DEXP4.2

3. SPECIALISATION IN HOPITAL PHARMACY

DEXP4.3

4. KEY OUTCOMES: THE SPECIALIST AND ADVANCED LEVEL FRAMEWORK (SALF) FOR SPECIALISATION. IDENTIFYING AND DEFINING COMPETENCIES

APPENDICES

Appendix 1. Specialist and Advanced Level Framework
Appendix 2. Specialisation and specific Competencies for Hospital Pharmacy
Appendix 3. List of documents – PHARMINE catalogue
Appendix 4. Glossary of terms

List of abbreviations

ABPI	Association of the British Pharmaceutical Industry
ALF	Advanced Level Framework
CAP	Community-acquired Pneumonia
CE	Continuing Education
CPD	Continuous Professional Development
CTA	Clinical Training Agreement
CTD	Common Technical Document
CV	Cardiovascular
DH	Department of Health
EAFP	European Association of Faculties of Pharmacy
EAHP	European Association of Hospital Pharmacists
EFPIA	European Federation of Pharmaceutical Industries and Associations
EHEA	European Higher Education Area
EIPG	European Industrial Pharmacists Group
EMEA	European Medicines Agency
EPP	Expert Professional Practice
EPSA	European Pharmacy Students' Association
ESCP	European Society of Clinical *Pharmacy*
ET	Education and Training
ETD	Education Training and Development
EU	European Union
FIP	International Pharmaceutical Federation
FLF	Foundation Level Framework
FLO	Foundation Level Outcomes
GCP	Good Clinical Practice
GHTF	Global Harmonisation Task Force
GLF	General Level Framework
GLP	Good Laboratory Practice
GMP	Good Manufacturing Practice
HEI	Higher Education Institution
HIV	Human Immunodeficiency Virus
ICU	Intensive Care Unit
IMPD	Investigational Medicinal Product Dossier
ISO	International Standards Organization
IT	Information Technology
ITU	Intensive Therapy Unit
IV	Intravenous
L	Leadership
LLL	Life Long Learning
M	Management

MA	Marketing Authorization
MEDDEV	Medical Devices
MRSA	Methicillin-resistant Staphylococcus Aureus
NHS	National Health Service
NPC	National Prescribing Centre
OTC	Over The Counter
PGEU	Pharmaceutical Group of the European Union
PICU	Postoperative Intensive Care Unit
PIL	Patient Information Leaflet
PIPA	Pharmaceutical Information and Pharmacovigilance Association
QP	Qualified Person
QRD	Quality Review of Documents
RD	Research and Development
RE	Research and Evaluation
REACH	Registration, Evaluation and Authorisation of Chemicals
REI	Research Evaluation and Innovation
RFID	Radio Frequency Infrared Device
RIP	Research Implementation Projects
SALF	Specialist and Advanced Level Framework
SOP	Standard Operating Procedures
SPC	Summary of Product Characteristics
TDM	Therapeutic Drug Monitoring
TOPRA	The Organisation for Professionals in Regulatory Affairs
TPN	Total Parenteral Nutrition
UK	United Kingdom
UKMI	United Kingdom Medicines Information
WP	Work Package

Preface

1. Aim and objectives

The aim of WP4 is to provide recommendations on a set of competencies for hospital pharmacy specialisation with the specific aim of reaching consensus on a core set of scientific and expert practitioner competencies required for modern practice.

The findings presented here correspond to the following objectives:

- Successful management of the project, team reporting and collaboration with partners DEXP4.1
- Identifying the competencies required for specialised pharmacy practice DEXP4.2
- Mapping these competencies with public healthcare needs and career pathways DEXP4.3

DEXP4.1 Successful management of the project, team reporting and collaboration with partners

2. Working method

The management and work of WP4 was carried out in parallel with developments in WP3 and WP5 and required regular team work and collaboration.

A range of European documents and policies relevant to the Spanish, French, German, Danish, Finnish and Portuguese systems for specialisation were translated into English, examined using a matrix approach, and a document library was constructed.

Following the concept of educationally-driven competence, a pilot version that described a set of competencies for advanced levels of practice for specialisation was drafted. Consultations with partners led to an agreement that a "core set" of specialisation competencies be produced that should map across all sectors of practice. The logical base for this resides in a framework that is educational (and not related to functional tasks or job descriptions) and hence must be cognitively applicable across all sectors of practice. After a period of iteration and consultation, the Specialist and Advanced Level Framework (SALF) was developed for the guidance of pharmacists progressing to advanced levels of practice (Appendix 1).

Using reference to the available best evidence, regular meetings and consultation with partners identified professional competencies which were subsequently arranged in two sections: "Core Clusters" (advanced competencies which are common to all sectors of pharmacy practice) and "Specialisation and Expert Professional Practice Clusters" (sector specific with a WP4 focus). After a further period of consultations and iterations

consensus was reached and the Specialist and Advanced Level Framework for Hospital Practice was developed (Appendices 1 and 2).

Feeding into this, the EAHP partners appointed a working group with representation from Finland, Germany, Hungary, Italy, Latvia, Slovakia, Spain, The Netherlands and the UK with a remit to define and agree the sector-specific competencies needed for hospital pharmacy specialisation, which builds on the foundation level competencies (as reported by WP3 – see Appendix 2). These specific competencies build in an integrated way with the Foundation Level Framework (WP3).

The four Core Clusters for advanced practice include competencies related to the areas of 'Leadership', 'Management', 'Education, Training and Development' and 'Innovation and Evaluation' (Appendix 1); the fifth specialisation cluster focuses on "Expert Professional Practice, Specialisation and Building working relationships" (Appendix 1).

DEXP4.2 Identifying the competencies required for specialised pharmacy practice

3. Specialisation in hospital pharmacy practice

"Specialisation" has a syntax meaning of becoming an expert in one particular skill or area. It is not universally accepted as a term to denote "sector of practice". It is argued that within a sector (where, by sector, we mean Hospital, Industry and Community) it is quite possible to engage in subject specialisation (for example, to become expert in the field of medicines (drug) information, or oncology pharmacy); increasingly, community practice is beginning to see specialisation in some of the more advanced levels of practice – for example developing expertise or special interests in public health or disease management. Syntax confusion arises around differentiating "specialisation" and "specialist practice" (expertise in any technical or therapeutic area). In this report, "specialisation" means an advanced understanding of a specific sector (hospital pharmacy) while "specialist practice" means specific competence in a defined field of practice (for example, oncology pharmacy or radiopharmacy).

Specialisation is about sector of employment but not a job description, and crucially has an evaluative, and hence *de facto,* expectation of a certain level of competence. Currently within hospital practice, several European countries have sectoral requirements which include a formal (knowledge defined) curriculum defined by pharmacy regulators, or sometimes fee-based university course and examination system (relating to hospital practice), a mix of the two, or indeed no formal or informal sector-specific training system at all.

The current European paradigm for hospital practice is deeply rooted in the culture of the domestic (local) health system and vested interests (e.g. fee-receiving bodies) and tends not to encourage the emergence of community-based specialisms. This has the potential for future dislocation or exclusion of practitioners from different practice settings.

Approaching specialisation of practice harmonisation across states by an orthodox "curriculum" led approach will not work. The term 'curriculum' is almost universally (but

usually wrongly) interpreted as content (or syllabus). Local customs and health systems tend to resist adding or dropping of content where there is a local intellectual ownership of that content.

As an example, look at the different ways in which hospital radiopharmacy is practiced. In some member states, the specialist practice 'curriculum' for the hospital service includes radiopharmacy which has, by assumption, some immediate resonance with how local radio-diagnostic pharmaceuticals are organised and/or supplied, often "on site" at the hospital. In other countries, radiopharmacy is a regional service, organised as a single, specialist unit covering a wide health service area, staffed almost entirely by specialist technicians (not necessary pharmacists) who provide a supply service for an entire region of hospitals. In the latter case, there is no individual service-driven need to have radiopharmacy as part of the specialist practice 'curriculum' for pharmacists (general, non-specialist undergraduate knowledge about radiopharmacy is sufficient). Hence, a 'curriculum' (or syllabus) led approach to a Europe-wide framework will inevitably fail due to the interaction with the local expectations for functional job descriptions.

A competency-based approach would be characterised by having a set learned behaviours which possess the following attributes:

i) not dependent on job descriptions or functional task lists;

ii) generalisable, and hence transferable across jobs and expected tasks;

iii) educational and developmental in nature – hence can be applied to practitioner development across sectors and scope of practice.

This particular approach to mapping specific competencies for advanced level practice within the hospital and industrial sector was universally welcomed by the WP4 and WP5 partner team. It is noted that the PGEU Partner would also advocate for specific sector competencies for advance level working in community (general) practice, but note that this is not part of the PHARMINE specification.

DEXP4.3 Mapping competencies with public healthcare needs and career pathways

4. Key outcomes: The Specialist and Advanced Level Framework (SALF) for Specialisation. Identifying and defining competencies

The **Specialist and Advanced Level Framework for Specialisation (SALF) has been developed** in collaboration with the WP4 partners to identify all relevant competencies and map these against specific public health needs and sector-specific career pathways. It comprises the following components:

1. Core clusters which include four main areas of practice-based competence (competency clusters), which are:

- Leadership
- Management
- Education, training and development
- Evaluation and Innovation

Each of the Core clusters contains a set of related competencies.

Each of these competencies is related to an explanation of the scope of practice for that particular competency. This section of the developmental framework provides the individual with a tool to progress within her/his area of practice, starting within a specialized position and whilst acquiring more experience moves towards a level of mastery in each of the clusters.

2. Specialisation competency Clusters include:
Expert Professional Practice (cross-sector advanced competencies) (Appendix 1)
Specific Competencies for Hospital Pharmacy (Appendix 2)

The Expert Professional Practice Cluster is structured the same way as the Core Clusters with the difference of being more sector specific.

A list of specific competencies necessary for the specialized practices of hospital pharmacy is included in Appendix 2. These competencies build upon foundation pharmacy practice and are intended for intermediate level pharmacists who have completed a period of work experience or training in hospital setting.

With this kind of structure, harmonization in all sectors is possible and, at the same time, professional autonomy is protected. This structure allows specialisms, sectors and individual practitioners to translate their own practice context.

Appendix 1. Specialist and Advanced Level Framework (SALF)

Framework Part 1. Core Clusters (independent of sector or environment)

	Leadership Inspires individuals and teams to achieve high standards of performance and personal development			
	Competency	Spectrum / Scope of Practice Starting with →		Moving Towards
1	Strategic Context	Demonstrates understanding of the needs of stakeholders and practice reflects both local and national health	Demonstrates ability to incorporate national healthcare policy to influence local strategy.	Demonstrates active participation in creating national health care policies.
2	Clinical Governance (ie. Pharmacovigilance)	Demonstrates understanding of the pharmacy role in clinical governance. Implements this appropriately within the organisation.	Influences the clinical governance agenda for the team.	Shapes and contributes to the clinical governance agenda at a higher level.
3	Vision	Demonstrates understanding of, and contributes to, the department and corporate vision.	Creates vision of future and translates this into clear directions for staff and supervisors	Convinces others to share the vision at a higher level.
4	Innovation	Demonstrates ability to improve quality within limitations of service. Requires limited supervision	Recognises and implements innovation from the external environment. Does not require supervision	Takes the lead to ensure innovation produces demonstrable improvement in service delivery.
5	Service Development	Reviews last year's progress and develops clear plans to achieve results within priorities set by others.	Develops clear understanding of priorities and formulates practical short-term plans in line with department	Relates goals and actions to strategic aims of organisation and profession.
6	Motivational	Demonstrates ability to motivate self to achieve goals	Demonstrates ability to motivate individuals in the team.	Demonstrates ability to motivate individuals at a higher level.

	Management Organises and delivers service objectives in a timely fashion			
	Competency	Spectrum / Scope of Practice Starting with →		Moving Towards
1	Implementing National Priorities	Demonstrates understanding of the implications of national priorities for the team	Shapes the response of the team to national priorities.	Accountable for the direct delivery of national priorities at a higher level.
2	Resource Utilisation	Demonstrates understanding of the process for effective resource utilisation	Demonstrates ability to effectively manage resources.	Demonstrates ability to reconfigure the use of available resources.
3	Standards of practice	Demonstrates understanding of, and conforms to, relevant standards of practice	Accountable for the setting and monitoring of standards of practice at team level	Accountable for the setting and monitoring of standards at a higher level
4	Managing Risk - if applicable to your country	Demonstrates ability to identify and resolve risk management issues according to policy/protocol	Is accountable for developing risk management policies/protocols for the team, including identifying and resolving new risk management issues	Is accountable for developing risk management policies/procedures at a higher level, including identifying and resolving new risk management issues
5	Managing Performance	Follows professional and organisational policies/procedures relating to performance management. Refers appropriately to colleagues for guidance.	Is accountable for performance management for the team	Is accountable for performance management at a higher level..
6	Project Management	Demonstrates understanding of the principles of project management.	Demonstrates ability to successfully manage a project at team level.	Demonstrates ability to successfully manage a project at a higher level
7	Managing Change	Demonstrates understanding of the principles of change management	Demonstrates ability to manage a process of change for the team	Demonstrates ability to manage a process of change at a higher level.
8	Strategic Planning	Demonstrates ability to think 4-12 months ahead within a defined area. Plans the work programme to align with strategy. Demonstrates understanding of formal structures	Demonstrates ability to think over a year ahead within a defined area. Demonstrates understanding of culture and climate and ability to plan with the whole of the organisation in mind	Thinks long term and sector wide. Takes the long-term perspective. Demonstrates understanding of organisational politics changes in the external environment.
9	Working Across Boundaries	Demonstrates ability to extend boundaries of service delivery within the team	Demonstrates ability to extend the boundaries of the service across more than one team	Demonstrates the value of extending boundaries across professions/in the external environment.

Education, Training & Development

Supports the education, training & development of others. Promotes a learning culture within the organisation.

	Competency	Spectrum / Scope of Practice		
		Starting with →		Moving Towards
1	**Role Model**	Understands and demonstrates the characteristics of a role model to members of the team	Demonstrates the characteristics of an effective role model at a higher level	Is able to develop effective role model behaviour in others
2	**Mentorship**	Demonstrates understanding of the mentorship process	Demonstrates ability to effectively mentor others within the team	Demonstrates ability to effectively mentor outside the team.
3	**Conducting Education & Training**	Demonstrates ability to conduct teaching efficiently according to a lesson plan with supervision from a more experienced colleague	Is able to assess the performance and learning needs of others. Demonstrates ability to plan a series of effective learning experiences for others	Demonstrates ability to design and manage a course of study, with appropriate use of teaching, assessment and study methods
4	**Continuing Professional Development**	Demonstrates self-development through routine continuing professional development activities available in your country with facilitation	Acts as a continuing professional development facilitator (eg. Acts as a mentor or focus for other parctitioners to develop)	Shapes and contributes to the continuing professional development strategy at a local (outside of discipline) or external (within discipline) levels.
5	**Links Practice and Education**	Participates in the formal education of undergraduate and postgraduate students	Participates in the education and training of formal specialist interest groups in the external environment	Shapes, contributes to or is accountable for the creation or development of higher education qualification(s)
6	**Educational Policy**	Demonstrates an understanding of current educational policies in health services	Demonstrates ability to interpret national policy in order to design strategic approaches for local workforce	Shapes and contributes to national educational policy.

Innovation & Evaluation

Uses research to deliver effective practice. Identifies and undertakes research to inform practice.

	Competency	Spectrum / Scope of Practice		
		Starting with →		Moving Towards
1	**Critical Evaluation**	Demonstrates ability to critically evaluate medical and review pharmacotherapeutic literature	Demonstrates application of critical evaluation skills in the context of specialist practice	Is recognised as undertaking peer review activities within the speciality.
2	**Identifies Gaps in The Evidence Base**	Demonstrates ability to identify instances where there is a gap in the evidence base to support practice	Demonstrates ability to formulate appropriate and rigorous research questions within the speciality	Demonstrates ability to design a successful strategy to address research questions within the speciality.
3	**Develops and Evaluates Research Protocols**	Demonstrates ability to describe the core features of research protocols	Demonstrates ability to design a rigorous protocol to address previously formulated research questions	Demonstrates active involvement in the critical review of research protocols.
4	**Creates Evidence**	Demonstrates ability to generate evidence suitable for presentation at local level	Demonstrates ability to generate new evidence suitable for presentation at research symposium	Demonstrates authorship of primary evidence and outcomes in peer reviewed media.
5	**Research Evidence Into Practice**	Demonstrates ability to apply research evidence into own practice	Demonstrates ability to apply evidence-based practice within the team	Is able to use research evidence to shape organisational policy/procedure.
6	**Supervises Others Undertaking Research**	Demonstrates understanding of the principles of research governance	Is able to contribute to research supervision in collaboration with research experts.	Is a research project supervisor for postgraduate students
7	**Establishes Research Partnerships**	Demonstrates ability to work as a member of the research team	Demonstrates ability to establish new multidisciplinary links to conduct research projects	Demonstrates ability to show leadership within research teams concerning the conduct of specialist research.

Specialisation Hospital sector

To enable evidence gathering for portfolio

To enable curriculum development. For example, "knowledge and skills' states (i.e. Spain, France, etc.)

1. Expert Professional Practice / Specialisation and Building Working Relationships / Professional Curricula Improving standards of pharmaceutical care . Is able to communicate, establish and maintain working relationships and gain the co-operation of others				
Competency		Starting with	→	Moving Towards
1	**1a Expert Skills and Knowledge for those who are patient facing**	Demonstrates general pharmaceutical knowledge in core areas. Is able to plan, manage, monitor, advise and review general pharmaceutical care programmes for patients in core areas	Demonstrates specialist pharmaceutical knowledge in a defined area(s). Is able to plan, manage, monitor, advise and review specialist pharmaceutical care programmes for patients in defined area(s)	Advances the knowledge base in the defined area. Advances specialist pharmaceutical care programmes for patients in the defined area(s)
	1b Expert Skills and Knowledge for those who are not patient facing	Demonstrates general pharmaceutical knowledge in core areas. Is able to plan, manage, monitor, advise and review general pharmaceutical care programmes in core areas	Demonstrates specialist pharmaceutical knowledge in a defined area(s). Is able to plan, manage, monitor, advise and review specialist pharmaceutical care programmes in defined area (s)	Advances the knowledge base in the defined area. Advances specialist pharmaceutical care programmes in the defined area(s)
2	**2a Patient Care Responsibilities**	Is accountable for the delivery of a pharmacy service to patients to whom they themselves directly provide pharmaceutical care	Is accountable for the delivery of a pharmacy service to a defined group of patient	Is accountable for the direct delivery of the pharmacy service for the defined area(s)
	2b Service Responsibilities for those who are not patient facing	Is accountable for the delivery of a pharmacy service to clients to whom they themselves directly provide pharmaceutical care	Is accountable for the delivery of a pharmacy service to a defined group of clients	Is accountable for the direct delivery of the pharmacy service for the defined area(s)

3	**3 Reasoning and Judgement** Including: Analytical Skills, Judgemental Skills, Interpretational Skills, Option Appraisal	Demonstrates ability to use skills in a range of routine situations requiring analysis or comparison of a range of options. Recognises priorities when problem-solving and identifies deviations from the normal pattern	Demonstrates ability to use skills to make decisions in complex situations where there are several factors that require analysis, interpretation and comparison. Demonstrates an ability to see situations holistically	Demonstrates ability to use skills to manage difficult and dynamic situations. Demonstrates ability to make decisions in the absence of evidence or data or when there is conflicting evidence or data
4	**4 Professional Autonomy**	Is able to follow legal, ethical, professional and organisational policies/ procedures and codes of conduct	Is able to take action based on own interpretation of broad professional policies/procedures where necessary	Is able to interpret overall health service policy and strategy, in order to establish goals and standards for others within the defined area(s).
5	**5a Communication for those patient facing** Including ability to: persuade, motivate, negotiate, empathise, provide reassurance, listen, influence. Networking and Presentation Skills	Demonstrates use of appropriate communication to gain the co-operation of individual patients, colleagues and clinicians. Demonstrates ability to communicate where the content of the discussion is explicitly defined	Demonstrates use of appropriately selected communication skills to gain co-operation of small groups of patients, colleagues, senior clinicians and managers within the organisation. Demonstrates ability to communicate where the content of the discussion is based on opinion	Demonstrates ability to present complex, sensitive or contentious information to large groups of patients, clinicians and senior managers. Demonstrates ability to communicate in a hostile, antagonistic or highly emotive atmosphere
	5b Communication for those not patient facing Including ability to: persuade, motivate, negotiate, empathise, provide reassurance, listen, influence. Networking and presentation skills	Demonstrates use of appropriate communication to gain the co-operation of colleagues. Demonstrates ability to communicate where the content of the discussion is explicitly defined	Demonstrates use of appropriately selected communication skills to gain co-operation of colleagues, and senior managers within the organisation. Demonstrates ability to communicate where the content of the discussion is based on opinion	Demonstrates ability to present complex, sensitive or contentious information to senior managers. Demonstrates ability to communicate in a hostile, antagonistic or highly emotive atmosphere
6	**6 Teamwork and Consultation**	Demonstrates ability to work as a member of the pharmacy team. Recognises personal limitations and is able to refer to more appropriate colleague	Demonstrates ability to work as an acknowledged member of a multidisciplinary team. Accepts consultation for specialist advice from within the organisation	Works across boundaries to build relationships and share information, plans and resources. Sought as an opinion leader both within the organisation and in the external environment

Appendix 2. Specialisation and specific Competencies for Hospital Pharmacy

The purpose of this Framework is to provide a list of competencies necessary for the specialised practice of hospital pharmacy. The competencies listed build upon the Foundation Level for early year practitioners and are intended to provide direction for those practitioners entering into hospital sector or who wish to demonstrate evidence for a period of workplace learning and training in a hospital setting.

HPO (Hospital Pharmacy Outcomes)		
PHARMACEUTICAL CARE COMPETENCIES		
Patient consultation		
	Patient assessment	Is able to take a medication history by using appropriate questioning where possible or medical records to obtain relevant information from the patient, recognising conditions, symptoms and special needs of individual patients. (e.g. ICU situation).
	Consultation or referral	Refers complex pharmaceutical and/or complex acute healthcare issues to a senior colleague, other healthcare professional or other service when appropriate.
	Recording consultation if applicable to in the country	Documents consultation where appropriate in the patients' records (making notes, pharmaceutical interventions, record of consultation).
	Patient consent	Ensures that the approval of a patient for a procedure (like accessing medical records, monitoring for chronic diseases, etc) is obtained. Agrees with the patient to check previous medical records and/or to use his / her data for future research in line with the ethical requirements.
	Medicine history	Documents an accurate and comprehensive medicine history when required.
	Relevant patient background	Retrieves ALL relevant and available information about patients' health, social status and ethnic background from different sources (medication reconciliation).
Gathering information		
	Accesses information	Is able to use databases including specific expert databases of hospital pharmacy, information services, evidence-based literature and all relevant local sources. Accesses this information in the most time efficient manner in order to undertake a review of the appropriateness, safety and efficiency and to promote rational use of medicines.
	Summarises information	Is able to evaluate/critically appraise evidence-based data for medicines use. Demonstrates the ability to summarize the information, extract key points that influence medicines use and communicate this information to another colleague.

	Keeps up to date and interprets information	Keeps pertinent information on a day to day basis up to date. Is able to interpret clinical laboratory data and other types of data (e.g. pathology) and information.
Knowledge		
	Pathophysiology and anatomy	Is able to apply knowledge of pathophysiology relevant to the therapeutic areas one is involved in including rare and acute diseases (e.g. sepsis). Understands normal organ function and the effect of disease states and if it effects medicines use.
	Pharmacology	Is able to discuss pharmacology of medicines that are routinely reviewed in the course of daily practice. Able to apply this knowledge to rare diseases.
	Adverse effects	Is able to understand major side effects profiles of medicines and recommend alternative drug therapies.
	Toxicology	Is able to describe acute overdosing situations and antidotes.
	Interactions	Is able to describe the different mechanisms of medicine interactions and identify which type of interaction applies.
	Microbiology and hygiene	Is able to describe the interaction between bacteria, viruses, fungi, parasite, anti-infectives and the human body including resistance mechanisms and hygiene.
	Research application of knowledge and understanding of benefit risk	Understands and applies knowledge in pre-clinical, clinical trials and experimental clinical-pharmacological research. Understands the assessment of benefit risk in relation to animal / clinical studies.
	Research methodologies application	Applies appropriate research methodologies to scientific and practice related issues.
	Clinical trials	Is familiar with of the organisation and running of clinical trials and associated regulations.
Analysing information		
	Evaluates information	Is able to evaluate effectively information gathered. Able to assess information for reliability of the source and relevance to patient care.
	Problem identification	Is able to identify, to solve and to prevent drug related problems in clinical practice.
	Appraises options	Assesses various options available for problem solving. Considers possible outcomes of any action and recognises the pros and cons of these various options.
	Decision making	Demonstrates clear decision making. Identifies the most appropriate solutions and justifies the decision taken. Is aware of one's own limits and seeks advice when necessary.
	Logical approach	Demonstrates the ability to apply a logical approach to work and problem solving.
Providing information		
	Provides accurate information	Ensures information provided is accurate, validated and understandable. Accesses relevant sources, makes references to appropriate literature or to colleagues as appropriate, applying the right information in the situation.
	Provides relevant information	Provides information which is appropriate to the recipient's needs.
	Provides timely information	Provides information in a timely manner prioritizing information provision when it is needed.
Follow up		

	Ensures resolution of problems	Resolves problems promptly and undertakes the appropriate follow up to ensure patient safety.
Need for the medicine		
	Medicine History	Documents an accurate and comprehensive medicine history when required.
	Relevant Patient Background	Retrieves ALL relevant and available information about patients' health, social status and ethnic background from different sources. Able to carry out a full medication reconciliation.
Selection of medicine		
	Medicine – medicine interactions	Is able to identify, priorities and act upon medicine - medicine interactions.
	Medicine - patient interactions	Is able to identify, prioritise and act upon medicine - patient interactions.
	Medicine - disease interactions	Is able to identify, prioritise and act upon medicine - disease interactions.
	Pharmacoeconomics	Is able to identify the most cost effective medicine based on interpretation of relevant data.
Medicine specific issues		
	Ensures appropriate dose	Ensures dose is appropriate using point of care diagnostics and relevant information.
	Selection of dosing regime: Route	Understands the consequences of all different formulations and routes of administration.
	Selection of dosing regimen: Timing	Ensures appropriate time of dose has been requested and works towards avoiding missed and duplicate doses.
	Selection of formulation and concentration	Understands the full range of formulations available, and ensures that the appropriate formulation and concentration is used. Considers whether administration aids, adaptors and connectors are required to ensure safe and effective administration. This includes GI tubes, i.v. formulations, epidural, intrathecal administration.
MEDICINES RELATED COMPETENCIES		
Development and Production		
	Knowledge	Is able to understand the relevance of using different active ingredients from different sources (chemical entities, biological origin, biotechnology.)
	Knowledge	Is able to apply an understanding of development, production, compounding, quality assurance (analysis and control) and distribution of pharmaceutical products.
	Formulation	Applies knowledge related to the design, manufacture and performance of dosage forms and is able to critically appraise the inter-relationship between formulation (including excipients), drug delivery and therapeutic effectiveness.
	Development	Has an integrated vision of the role of the various disciplines that are involved in the development of a medicinal product.
	Quality	Is able to apply the knowledge related to the quality requirements for good manufacturing practice (GMP) of pharmaceutical production on both a small and industrial scale, including Standard Operating Procedures (SOP) and the supervision standards required to achieve these quality levels.

Quality controlling medicines for public	Is able to both apply the knowledge and understand the place of and importance of quality control and quality assurance principles in manufacturing in order to produce a quality product.
Regulating medicines use	Is able to apply an integrated understanding of the organisation and monitoring of the distribution of medicinal and other healthcare products including the regulations applying to pharmaceutical sales and marketing.
New technologies	Has knowledge of the production, quality assurance and applications of biotechnology, nanotechnology and genomics where they apply to medicines. and medicine development and production. This includes handling and distribution of drugs.

Provision of medicine product

The prescription is clear	Ensures that the prescription is clear and that the intentions of the prescriber are understandable.
The prescription is legal	Ensures the prescription is legal in the country it is being dispensed in and accounts for any applicable national regulations for the dispensing of prescriptions prescribed in another EU member country.
Labelling of the medicine	Ensures medicines are labelled accurately complying with all necessary labelling guidance (e.g. with clear dosage, instructions warnings, and other required information) and that the label is appropriate for the patient.

Medicines Information and patient education

Public Health	Provides lifestyle advice appropriate to the needs of the patient. Is aware of local services and initiatives.
Health Needs	Takes into account the patient's ethnic, cultural, linguistic and social background when assessing his personal health needs.
Need for information is identified	Is aware of an individual patient's need for information and is able to source relevant information at an appropriate level.
Medicines Information	Ensures the accuracy of medicines information, using appropriate resources and consulting colleagues as needed.
Provision of printed information	Provides printed information when this would be helpful or is required by national regulations (including related leaflets available from other organisations or institutions, specific information for individual patients, etc).

Monitoring medicine therapy

Identification of medicines management problems	Identifies patients for which ongoing monitoring is required. Identifies monitoring parameters and potential adverse effects. Establishes a plan for review of objectives and treatment outcomes. Ensures medicines are appropriately monitored when required.
Prioritisation of medicines management issues	Prioritises medicines management issues of individuals and patient groups that one works with.
Use of guidelines or protocols	Is aware of the current clinical guidelines and protocols, local and national, applicable to the field one is working in and understands how they ought to be applied.. Applies current clinical guidelines, recognising their limitations.

	Resolution of medicines management issues	Ensures appropriate action is taken promptly when drug management issues are identified and ensures that the required actions are implemented. to ensures that patient harm is avoided or minimised.
	Prevention	Develops a plan to mitigate against the likelihood of medicine management issues from occurring where possible.
	Record of contributions if applicable in the country	If applicable to the country, documents information to support contributions to patient care, for example maintains pharmaceutical care plans or updates information systems to ensure that relevant information is available to colleagues.
Evaluation of outcomes		
	Assessing outcomes of contributors	Monitors or follows up interventions as well as medicines advice. Records contributions and, where possible, continues to learn from the outcomes of one´s own contribution.
Analysis and control of medicines:		
	Active drug substances and excipients	Is able to apply knowledge related to the understanding the main sources of active drug substance and the major excipients and the ways in which they are purified, characterised and analysed.
	Analysis of available medicines	Has an appropriate understanding of the role and application of the various techniques for the analysis of pharmaceutical products.
	Qualified Person	Understands the roles and responsibilities of the Qualified Person.
	Quality management systems	Demonstrates familiarity with quality management systems applied to pharmaceutical products.
	Validation of drug production processes	Understands the theory and practice of validation of drug production processes.
PROFESSIONAL and MANAGEMENT COMPETENCIES		
Organisation		
	Prioritisation	Prioritises work, managing one's time efficiently including prioritising tasks to changing circumstances.
	Punctuality	Ensures satisfactory completion of tasks with appropriate handover, recognizing the importance of punctuality and attention to detail.
	Initiative	Demonstrates initiative in problem solving or taking new tasks. Demonstrating ability to work independently with one's own limitations.
	Efficiency	Demonstrates a process of care using the time productively with minimum waste of effort.
Effective Communication Skills		
	Patient / Carer / Client	Communicates in a clear, accurate and concise way whether verbally, electronically or in writing, at a level appropriate to each patient/carer. Involves the patient or carer.
	Other healthcare professionals and staff	Communicates with other healthcare professionals and colleagues in a clear, precise and appropriate way.
	Immediate team	Communicates with other members of the team in a clear, precise and accurate way..
	Mentor/tutor	Ensures time is allocated for discussion of progress, including strengths and weaknesses.

	Linked Organisations	Communicates with other organisations that affect the delivery of patient care, especially involving the transfer of care.
Team work		
	Pharmacy Team	Recognises the value of team members and uses appropriate channels for referral. Understands the roles and responsibilities of team members, knowing how the team works, respecting skills and contributions of others as well as recognising own limitations within the team.
	Multi-disciplinary team	Recognises the value of other healthcare professionals and seeks to establish co-operative working relationship with colleagues, based on the understanding of and respect for each other's roles.
	Organisational team	Recognises the roles and skills of other non-clinical staff within the team.
Professionalism		
	Confidentiality	Respects and maintains the individual's right to confidentiality and understands when information about the patient's condition can be shared with colleagues.
	Recognition of limitation	Is aware of one's own professional and personal limitations and seeks advice or refers when necessary.
	Quality and accuracy of documentation	Ensures that legally required information is documented in a timely and accurate manner.-
	Legislation	Is aware of and appropriately implements legislation that is directly linked to the delivery of a service to an individual patient (human rights, discrimination, patient confidentiality, dispensing of controlled drugs, pharmacy supervision, other national guidance and legislation.
	Responsibility for own action	Takes responsibility for one's own action. Is prepared to give an account of professional judgments, acts and omissions in relation to own professional role.
	Ethics	Exercises transparency and probity in the relationship with pharmaceutical industry.
	Ethics	Respects the rights of patients in therapeutic decisions (e.g. informing about the risk associated with off label use and unlicensed medicines).
	Confidence	Interacts in a way with patients, health professionals, colleagues and carers that will inspire confidence and generate professional respect.
	Responsibility for patient care	Takes responsibility for patient care, and recognising their needs as individuals. Knows when to ask for advice and act upon it as appropriate.
	Responsibility for continuing professional development	Understands the need for continuing professional development and taking responsibility for it. Complies with local CPD requirements, reflecting on performance and is able to self-assess competence and performance. Engages with life-long learning. Identifies one's own learning needs. Evaluates one's own learning.
Clinical Governance		

	Clinical governance issues	Understands issues surrounding clinical governance and continuous quality improvement.(Clinical governance consists of processes such as continuing professional development, evidence-based practice, auditing, dealing with poor performance, managing risk, monitoring clinical care, patient involvement and reporting errors).
	Department's Standard Operating Procedures	Uses and complies with relevant and up to date procedures to practice. Standard Operating Procedures (SOPs) which are part of risk management, quality and harm minimization strategies and as such ought to exist for all medicines management activities or processes.
	Working Environment	Applies legal and professional requirements for a safe system of work, such as the Code of Ethics, Hygiene Standards, Health and Safety at Work, etc.
	Risk Management	Records and reports patient safety incidents such as dispensing and prescribing errors and patient complaints in line with local and national policies. Understands and applies quality systems.
Service Provision		
	Quality of Service	Reviews services provided to ensure they meet local and national standards and specifications. Understands and applies the knowledge related to the analysis and quality control of pharmaceutical products in the service.
	Service Development: Key drivers and new services	Identifies new services or ways of working in relation to local plans (projects) and needs of local population. Ensures sustainability and availability of the service.
Budget setting, medicine costs and reimbursement systems		
	Service Reimbursement (if applicable in the country)	Uses relevant reference sources to ensure appropriate and accurate reimbursement. Claims reimbursement appropriately for services that are provided.
	Prescribing budgets (if applicable in the country)	Considers the budgetary effects of prescribing and uses generic substitutions where possible.
Organisations		
	Organisational structure	Understands the structure of the employing organisation and / or professional body.
	Linked Organisation	Understands the structure of key organisations (including government and arms length bodies such as the National Medicines Agency, professional unions, etc) and how they affect service delivery.
	All sectors	Is able to interpret and apply national and local policies in relation to the hospital pharmacy, community pharmacy and the pharmaceutical industry. Understands the legal aspects of relationships with medical staff and patients/pharmaceutical care; patients, medical staff and providers and/or medical representatives of pharmaceutical industry.
Training		
	Pharmacy staff	Ensures that staff, under ones responsibility, are competent to undertake the tasks allocated to them. Makes arrangements for training when necessary.
	Other healthcare professionals	Participates actively in training other healthcare professionals. Organises training events or uses an opportunistic conversation to facilitate training.

Staff Management

Performance management	Carries out staff appraisals on a regular basis. The purpose of the staff appraisal is to discuss achievements, expectations and outcomes related to work content, contribution, development and aspirations. The appraisal process should realise potential, monitor performance and recognise contribution.
Staff development	Supports staff in their professional and personal development.
Employment issues	Is aware of employment legislation, including . statutory rights (annual leave, maternity leave, minimum wage) and disciplinary procedures and has competent interviewing skills .
Leadership	Knows the fundamentals of managing and supervision of staff.

Medicines Purchasing (Procurement)

Pharmaceutical: Describe sourcing / Timely sourcing	Knows where medicines (and medical devices where relevant) can be sourced from or is able to suggest suitable alternatives. Sources pharmaceuticals (and medical devices where relevant) in a timely manner.
Supply problems	Ensures patients receive the medicines (and medical devices where relevant) they need in a timely fashion. When supply problems occur arranges alternative products for patients. Including in out of hours or on-call emergency situations.
Stock management	Ensures effective stock management. Avoids excess and shortage of the medicines (and medical devices where relevant). Keeps track of expiry dates.
Cost effectiveness	Gives consideration to effectiveness when purchasing and dispensing stock and advising on prescribing choices (e.g. dispensing generics, bulk buying, selecting a product from several therapeutic equivalents, using sources that are recognised in each country as being the best value for money. This may include wholesaler discount offers or contract purchasing and so on.).

Management, legislation and economics:

Regulatory affairs	Applies and understands regulatory affairs and the key aspects of pharmaceutical licensing and regulation.
Marketing and sales	Understands the role and function of the marketing and sales departments.

SPECIFIC COMPETENCIES

Intensive care

Complexity	Is aware of the complex drug therapies, protocols and administration systems on the ICU (also known as ITU, PICU and NICO in some countries).
Patient safety	Is able to work with a multidisciplinary teams to reduce the particular risk associated with complex I.V.. therapy, syringe drivers/pumps and associated technology.
Managing emergency situations	Is able to interpret the rapid change of laboratory data and understand their significance to advise physicians on adjusting doses.
Special groups	Is aware of the different requirements within the intensive care speciality e.g. burns, paediatric, neonatal, serious injury patients.

	TPN	Understands the complexity of high maintenance of nutritional requirements delivered by TPN.
Rare diseases and emergency situation		
	Emergency and specialised purchasing	Is able to identify the sources of medicines of required standard and quality taking into account formulation and licensing status.
	Knowledge	Has knowledge of rare diseases, orphan drugs and particular clinical needs of patients groups (e.g. paediatrics).
	Clinical emergency	Is able to source and obtain drugs in emergency and life threatening situations including shortage situations.
Hospital management		
	Role of pharmacy	Understands the role of the pharmacy in a hospital setting in cost containment and improving patient safety .
	Information and education	Is able to provide appropriate, independent and objective information and education to physicians and nurses.
	Medicine information	Is able to answer, record and investigate a medicine information request
		Has a working knowledge of hospital finances and an advanced understanding of departmental drug budgets.
		Understands the complexities of how drug therapy is financed including specialised funding streams and arrangements.
		Is able to present the financial position to each department or division and comment on how costs can be controlled, by drawing upon their underpinning clinical knowledge of specific drug therapies, without impacting upon patient safety.
		Is able to work with departmental managers to deliver drug related cost improvement programmes.
	Hospital organisation	Is able to understand hospital organisation and participate in medication management in hospitals. This must encompass the entire way in which medicines are selected, procured, delivered, prescribed, administered and reviewed to optimise the contribution that medicines make to producing informed and desired outcomes.
		Is able to enhance the safety and quality of all medicine related processes affecting patients of the hospital.
		Is able to ensure the 7 “rights” are respected in the hospital: right patient, right dose, right route, right time, right drug with the right information and documentation.
	Technology, automation	Appreciates the place of automation technology in hospitals including vending machines, automated cabinets, dispensing robots, barcode and RFID technology and software for electronic prescribing.
	Large scale production	Is able to apply GMP in hospitals with large but not industrial scale of production and to develop formulas for specific groups of patients (especially paediatrics).
	Medical gases	Understands the pharmacist’s role in drug purchasing including procurement, distribution, surveillance, and control of medical gases.
	Medical devices	Is able to evaluate the clinical effectiveness, safety for patient and cost of medical devices
		Is able to compare medical devices which are homogeneous in technical features.
		Reports medical devices accidents and investigates them.

		Formulates specifications for medical device purchase and monitors consumption.
	Sterilisation	Is able to draw up and maintain procedures for cleaning, disinfecting and (re)sterilisation of medical devices. Is able to supervise sterilisation of medical devices by means of process checks. Is able to supervise compliance with storage and transport directives for sterile medical devices.
	Drug & Therapeutic Committee	Is able to work as an active member of a hospital Drug and Therapeutics Committee. Is able to critically appraise formulary applications and peer review documents including having an appreciation of the financial implications of each application. Is able to construct, assess and professionally comment on treatment pathways and treatment protocols, medicine policies, patient group directions and process national safety alerts.
Interface management		
	Seamless care	Is able to identify and manage the problems related to the hospital/community care interface on the base of knowledge of the health system in his/her specific country Is able to make the reconciliation of medication on the base of the patient's acute state and specific needs. Identifies and manages the problems related to switch patient's medication to formulary drugs especially in specific groups like psychiatric, elderly and paediatric patients
Specialist practice		
	TDM/ Pharmacokinetic	Is able to design, validate and implement bio-analytical analyses to support regular pharmacotherapy and toxicology and supervise their execution. Is able to give advice, whether or not on request, to medical specialists and other care providers on qualitative and quantitative analyses of xenobiotics in body fluids regarding individuals or groups of people. Is able to determine kinetic parameters to generate patient's specific dosage on the basis of results of bio-analysis, also in complex situations such as dialysis.
	Oncology	Is able to provide optimal drug therapy in cytotoxic preparation services for cancer patients and/or clinical pharmacy. Is able to manage and utilize appropiate oncology protocols Is able to optimize drug therapy for patients with cancer through the design, recommendation, implementation, monitoring, and modification of individualized pharmacotheraputic plans in collaboration with the healthcare team. Is able to ensure the safe, effective, and appropriate use of medications in patients with cancer through the implementation of guidelines and the development and modification of pharmacy policies and systems. Is able to raise awareness among the public and healthcare providers regarding cancer-related issues (risk factors, prevention, screening, treatment).
	Radiopharmacy	Is able to provide an adequate technical and scientific support with choosing and purchasing radioactive drugs, generators and kits.

		Is able to draw up specific instructions of preparation according to the manufacturer´s indication to guarantee doses set by the nuclear physician to the individual patient. Is able to ensure the quality of radioactive drugs according to quality assurance systems (GMP). Is able to evaluate possible drug and radioactive drug interactions and orient diagnostic therapy toward products in the same category, that are better suited to specific needs. Is able to search for and work in the development of new radioactive drugs. Understands control management of radioactive drugs, purchasing including procurement, storage and waste.
	Advanced therapies	Is able to participate in the selection, use, and management of advanced therapies (gene therapy agents, cellular therapy, nanomedicine, etc.) that should be based on the same principles as a medication formulary system (clinical, ethical, legal, social, philosophical, quality-of-life, safety, and pharmaco-economic factors).
	Nosocomial infections	Understands the difference and the impact of nosocomial infections compared to community acquired. Is able to work with a multidisciplinary team to reduce the nosocomial infection risk (e.g. is able to analyse laboratory data: bacteraemia rates and antimicrobial susceptibility patterns for selected common pathogens etc.) and to manage infection control. Is able to participate in the coordination of anti-infective policy. Is able to analyse, evaluate and intervene in case of non-optimum antibacterial therapy or adverse effects for individual patients (especially in paediatrics).
	Paediatrics	Is able to calculate neonatal and paediatric doses using various approaches including body surface area Appreciates the key concepts of PK as they apply to Children including Organ development, drug distribution and drug metabolism Understands the primary paediatric formulation issues including the importance of effect of apparently inert excipients Is aware of the particular safety issues and complexity relating to paediatric therapy and care including PICU (paediatric intensive care, PN, Oncology, renal, cardiology , pain relief and so on)
Development and research		
	Development and research	Is able to contribute to the care of patients through research, the application of research results, and education.
	Ethics committee	Is able to take an active role in the ethics committee and appreciate its pivotal role in research. Has awareness of the need to access this process and the necessity of obtaining ethical approval.
	Clinical trials phase I/II	Understands the differences and significance of clinical trials phases, the importance of GPC and the role of pharmacy in phase I/II clinical trials. Is able to review protocols and the portfolio in terms of quality assessment.

Appendix 3. List of documents – PHARMINE Catalogue

PHARMINE Catalogue

ACLF	Framework / Word doc	CoDEG_09
Advanced and Specialist Practice Project Report_GLF_terminology	Word doc	CoDEG_09
Advanced Service Competency Framework	PDF	DoH_05
Application form 2008: Lifelong Learning Programme Sub-programmes - Multilateral Projects, Networks, Accompanying measures -	PDF	Pharmine_08
ARS Agences Régionales de la Santé	PDF	Laroque_07
Assessments V8 Aug 09	Word doc	CoDEG_09
Australia Competency Framework	Word doc	SHPA_03
Australia_news_Shpa announces work on a national competency project	Word doc	SHPA_09
BachReport	PDF	Bach_08
Bibliography	Word doc	Obiols_09
Big picture diagram (WP3/WP4)	PowerPoint	Obiols_09
Canada competency framework (Models standards of practice for Canadian pharmacists)	Word doc	NAPRA_03
Clinical topics resource pack V5	Word doc	CoDEG_09
Competencies for Chlamydia (doc 1) Screenings and Treatment Enhanced Service using the GLF	Word doc	CoDEG_09
Competencies for Chlamydia (doc 2) Screenings and Treatment Enhanced Service using the GLF	Word doc	CoDEG_09
Content guide final amend re HAG	Word doc	CoDEG_09
DAP guide V3	Word doc	CoDEG_09
Denmark_Copenhagen	PDF	Fjalland_Apr09
Dummy Form FLF	Word doc	Obiols_09
Easy_to_understand	Excel	JamesDavies_09
E Directive prof recog 2005_36_EC_05.09.07	PDF	EU Parliament_07
Farmacia Hospitalaria	PDF	ComisionNacionalFarmaciaHospitalaria_99
First Output	SPSS	Svarcaite_09
FLF	Word doc	Obiols_09
France competences for Pharmacien Ind	PowerPoint presentation	Tchoreloff_07
FrenchSystem_Luc's_emails	Word doc	Obiols_09

GLF	Framework / Word doc	CoDEG_05
GLF_ACLF_TLF_terminology	Word doc	CoDEG_09
GLF Functional Requirements	Word doc	Svarcaite_09
GLF Language Sensitive	Excel	Svarcaite_09
GLF Taskforce meeting Oct 09	Word doc	CoDEG_09
Glossary of terms	Word doc	Obiols_09
Higher Level Practice in Clinical Pharmacy Specialities. Application of the ACLF and Implications for Consultant Pharmacists	Word doc	Obiols_09
Initial education	PDF	Ordre National des Pharmaciens_05
James_work	Word doc	Obiols_09
JPBclincurric guide 2008 with learning support	Word doc	CoDEG_08
Kick-off_Minutes_Feb09	Word doc	Pharmine_Feb09
LarcherReport	PDF	Larcher_08
ListAttendance	Word doc	Pharmine_09
Mapping of Advanced Services to GLF final	Word doc	CoDEG_05
MicrobiologiaParasitologioa	PDF	BOE_06
Minutes HEI Leads 27th Aug	Word doc	CoDEG_09
Mucklow_02	PDF	Mucklow_02
Outline for PHARMINE Project	Word doc	JamesDavies_09
PAYMENTformTRAVEL	PDF	Pharmine_09
Pharmacien industriel – Elaboration du eferential de compétences	PDF	Tchoreloff_07
Pharmacy Practitioner Development Across Europe	Word doc	JamesDavies_09
Pharmine Catalogue	Excel spreadsheet	Obiols_Oct09
PHARMINE newsletter French competency frameworks for Pharmacy 1208	PDF	Pharmine_08
PHARMINE newsletter French LMD Santé 1208	PDF	Pharmine_08
PHARMINE presentation	PowerPoint presentation	Pharmine_09
PHARMINE presentation. Practicalities	PowerPoint presentation	Rombaut_09
Pharmine_WP3	PowerPoint presentation	Bates_09
Pharmine_WP4	PowerPoint presentation	Bates_09
Plan_frances	Word doc	Obiols_09
ProgressReport_Pharmine	PDF	Pharmine_Jan09
ProgressReport for Pharmine	PDF	Pharmine_08
Questionnaire on Pharmacists Activities	Word doc	IvanaSilva_Jun09
Raw data	SPSS	Svarcaite_09
Responses from FIP Global Pharmacy Workforce Survey	Word doc	Bruno_09
Recognition of professional qualifications	PDF	EU Parliament_05
SALF – Specialist and Advanced Level Framework	Word doc	Obiols_09

Slides_for_Roberto	PowerPoint presentation	Bates_09
Spanish System	PowerPoint Slide	Obiols_09
Spanish_System	Word doc	Obiols_09
Summary_Spanish System Specialisation in Hospital Pharmacy	Word doc	Obiols_09
Summary_French	Word doc	Obiols_09
Surveying Pharmacy Practice in Europe_MScThesis	Word doc	Svarcaite_09
Surveying Pharmacy Practice in Europe_MScThesis	PDF	Svarcaite_09
TLF	Framework / Word doc	CoDEG_09
Translation industry competencies FRANCE	Word doc	Tchoreloff_07
Working	SPSS	Svarcaite_09
Working_recoded	SPSS	Svarcaite_09
Working towards educational consensus_WP3_WP4	PowerPoint presentation	Bates_09
What is CPD and when to begin	PowerPoint presentation	Silva_Sep09

Appendix 4. Glossary of Terms

Glossary of Terms

Behavioural competency: Typical behaviour observed when effective performers apply motives, traits or skill to job relevant tasks.

Clinical Governance: A framework through which NHS organisations are accountable for continuously improving the quality of their services and safeguarding high standards of care by creating an environment in which excellence in clinical care will flourish.

Competence: Ability to carry out a job or task.

Competency: A quality or characteristic of a person related to effective or superior performance. It is made up of many things such as motives, traits and skills.

Continuing Education (CE): A structured process of education designed or intended to support the continuous development of pharmacists to maintain and enhance their professional competence. CE does not necessarily equate to adequate learning to attain the competence of the professional. Hence continuing professional development (CPD) is increasingly adopted by the profession world-wide as the way to ensure professional competence.

Continuing Professional Development (CPD): Self-directed, ongoing, systematic and outcomes-focused approach to learning and professional development.

Evidence-Based Practice: Using good quality evidence to make sound clinical decisions

Facilitator: One who encourages self-directed learning.

Higher Level: A greater level of organisational complexity than that of the pharmacist's team (as defined above).

Hospital: Licensed establishment primarily engaged in providing medical, diagnostic, and treatment services that include physician, nursing, and other health services to in-patients and the specialized accommodation services required by in-patients.

Life Long Learning: All learning activity throughout life, with the aim of improving knowledge, skills and competence, within a personal, civic, social and/or employment-related perspective.

Mentor: One who advises on how skills should be performed in the workplace.

National Priorities: Health care priorities identified in the Government's Public Service Agreement.

Outcome: Performance indicator based on standards that are measurable; often demonstrated through products or behaviours.

Peer Review Activities: Expert opinion is sought to undertake a review of published work (s) in the pharmacist's area of practice.

Pharmaceutical Care: The responsible provision of drug therapy for the purpose of achieving definite outcomes that improve a patient's quality of life.

Qualified Person: The Qualified Person (QP) is essential to the safe control of medicines and needs to have extensive training and in-depth critical understanding of all the aspects associated with pharmaceutical manufacturing. The primary legal responsibility of the Qualified Person (QP) is to certify batches of medicinal products prior to use in a clinical trial (human medicines products only) or prior to release for sale and placing on the market (human and veterinary medicinal products).

Role Model: One whose behaviour is copied by a learner Specialist Pharmaceutical

Sector: Major field of professional activity in a defined environment such as community, industry, hospital, administration and academia.

Team: The staff (pharmacy or multidisciplinary) or care group with which the pharmacist works most closely.

BIBLIOGRAPHY

Albanese, M.A., Mejicano, G., Mullan, P., Kokotailo, P., Gruppen, L. (2007) Defining characteristics of educational competencies. *Medical Education*, **42:3**, 248-255.

Antoniou, S., Webb, D.G., McRobbie, D., Davies, J.G., Wright, J., Quinn, J., Bates, I.P. (2004) General level competency framework improves the clinical practice of hospital pharmacists: final results of the south of England trial. *International Journal of Pharmacy Practice*, **12(suppl)**, R22-23.

Antoniou S, Webb DG, McRobbie D et al. (2005) A controlled study of the general level framework: results of the South of England competency study. *Pharmacy Education*: **5**: 201-7

Attewell, J., Blenkinsopp, A., Black, P. (2005) Community pharmacists and continuing professional development – a qualitative study of perceptions and current involvement. *Pharmaceutical Journal*, **274**, 519-524.

Austin, Z., Marini, A., Croteau, D., Violato, C. (2004) Assessment of pharmacists' patient care competencies: validity evidence from Ontario (Canada)'s quality assurance and peer review process. *Pharmacy Education*, **4**, 23-32.

Bates, I.P., McRobbie, D., Davies, J.G., Webb, D.G. (2004) Why we need a defined career structure in place of informal progression. *Pharmaceutical Journal*, **272**, 283.

Bowden, J., Marton, F. (2004) *The University of learning: Beyond quality and competence*; 1st Ed. London: RoutledgeFalmer.

Brussels, BE., Brown, M., Sadia K (2007) How does one become a qualified person, *Tomorrow's Pharmacist*, 28-29.

Davies, J.G., Webb, D.G., McRobbie, D., Bates, I.P. (2002) A competency-based approach to fitness for practice. *Pharmaceutical Journal*, **268**, 104-106.

Davies, J.G., Bates, I., Healey, R., Webb, D.G., McRobbie, D. (2004b) Fit for purpose? Pharmacy graduates' perceptions of their readiness to undertake clinical pharmacy activities. *International Journal of Pharmacy Practice*, **12 (suppl)**, R17.

Department of Health (DoH). (2004) *Knowledge and Skills Framework (KSF)*; London: DoH.

Department of Health (DoH) (2005) Choosing health through pharmacy – a programme for pharmaceutical public health 2005-2015; London: DoH.

Department of Health (DoH) (2008) *Pharmacy in England: Building on strengths, delivering the*

future. London: DoH.

Dreyfus HL, Dreyfus SE. Mind over Machine. Oxford: Blackwell, 1986

European Federation of Pharmaceutical Industries and Associations (EFPIA) (2007) The pharmaceutical industry in figures.

Epsein, R.M., Hundert, E.M. (2002) Defining and assessing professional competence. *Journal of the American Medical Association*, **287**, 765-769.

Faculty of Neonatal and Paediatric Pharmacy (2002) *General Paediatric Competencies*. College of Pharmacy Practice, Faculty of Neonatal and Paediatric Pharmacy.

Faculty of Prescribing Medicines Management (2002) *A Competency Framework for Members and Associates*. Faculty of Prescribing Medicines Management

Govaerts, M.J.B., Educational competencies or education for professional competence? (2008) *Medical Education*, **42**, 234-236.

Hyland, T. (1997) Reconsidering Competence. *Journal of Philosophy of Education*, **31(3)**, 491–503.

Leung, W.C. (2002) Competency based medical training. *British Medical Journal*, **325**, 693-696.

McRobbie, D., Webb, D.G., Bates, I.P., Wright, J., Davies, J.G. (2001) Assessment of clinical competence: designing a competence grid for junior pharmacists. *Pharmacy Education*, **1(2)**, 67-76.

Meadows N, Webb DG, McRobbie D *et al*. Developing and validating a competency framework for advanced pharmacy practice. *Pharm J* 2004; **273**: 789-792

Miller GE. The assessment of clinical skills/competence/performance. *Acad Med* 1990; **65**(suppl): S63-S67

Mills, E.R., Bates, I.P., Davies, J.G., Lyall, H. (2004) A pilot study to evaluate professional and clinical competence in a community pharmacy setting. *Pharmacy World and Science*, **26**, A31-32.

Mills, E.R., Farmer, D., Bates, I.P., Davies, J.G., Webb, D.G., McRobbie, D. (2005) Development of an evidence-led competency framework for primary care and community pharmacists. *Pharmaceutical Journal*, **275**, 48-52.

National Prescribing Centre (NPC) (2003) *Competencies for pharmacists working in primary care*; 2nd Ed, London.

PCCP Network (2003) A Competency Framework for Community Health Pharmacy Services. The Primary and Community Care Pharmacy Network.

Pharmaceutical Society of Australia (2003) Competency Standards for Pharmacists in Australia in 2003.

Pharmacy Council of New Zealand (2006) Competence standards for the pharmacy profession. Pharmacy Council of New Zealand. Wellington, New Zealand.

RPSGB (2003a) Competencies of the future pharmacy workforce. Royal Pharmaceutical Society of Great Britain, London.

Schön DA. The Reflective Practitioner: how professionals think in action. London: Temple Smith, 1983

Spencer, L.M., Spencer, S.M. (1993) *Competence at work: Models for Superior Performance*; New York: John Wiley & Sons Inc.

Taylor, B. (2005) Developing a national framework of pharmacists with special interests. *Pharmaceutical Journal*, **275**, 290-293.

Unwin, L. (2004) Twenty-first century vocational education in the UK: What would Dickens think? *Pedagogy, Culture and Society*; **12(2)**, 75-199.

Webb, D.G., Davies, J.G., Bates, I.P., McRobbie, D., Antoniou, S., Wright, J., Quinn, J. (2003) Competency framework improves the clinical practice of junior hospital pharmacists: interim results of the south of England trial. *International Journal of Pharmacy Practice*, **11(suppl)**, R91.

Webb, D.G., Davies, J.G., McRobbie, D., Bates, I.P., Wright, J. (2004) Adopting a strategy for practitioner development. *Hospital Pharmacist*, **11**, 104-108.

Weightman, J. (1994) *Competencies in action*; Institute of Personnel and Development. London.

Whiddett, S., Hollyford, S. (2000) *The Competencies Handbook*; Institute of Personnel and Development, 1st Ed, London.

Whiddett, S., Hollyford, S. (2002) *A practical guide to competencies: how to enhance individual*

and organisational performance; Chartered Institute of Personnel and Development, 2nd Ed, London.