

PHARMINE

Recommendations on a Competency
Curriculum for Pharmacy

WP3

EAFP

EAHP

PGEU

EIPG

EPSA

Aims

WP3: Recommendations on competency curriculum for professional pharmacists

specifically aims to define a core scientific set of competencies required for modern practice, which will equip a newly qualified practitioner for the early career years.

(the post-registration outcomes of initial Education and Training)

WP4: Recommendations on competency curriculum for pharmacy specialisation (all sectors)

specifically aims to reach consensus on a core set of scientific and expert practitioner competencies based on establishing the requirements for modern practice.

Pre-conditions for WP3

Future-proof approach

Prediction of pharmaceutical service development trends across Europe

- *“Cognitive” pharmaceutical care services (across sectors)*
- *harmonisation of intent (pharmaceutical care)*
- *acceptance of applied science base*

Autonomy at pre-service levels remains

Milestones.

1. Publication and dissemination of the PHARMINE definitions and concepts of “competence”, “performance”.
2. Gathering of evidence across the EAFP membership/partner base and translation of subject content into competencies and outcomes (the “codification” process).
3. Publication of the codified competencies, with associated evidence.
4. Mapping against EU public health needs, in consensus with PHARMINE partners. Publication of this.

Competence models

- **Standards model:** expectations of a particular area of work or work role. Task-based, often referred to as a competence (or an item of competence), and assessment is criterion referenced (minimum standards, yes or no).
- **Personal model (behavioural):** attributes that result in effective performance. Relates to knowledge, skills, values. Useful in self-assessment and individual development.
- **Educational model:** focuses on need to know by the end of a period of learning, usually in the form of stated learning outcomes. Assessment is usually norm-referenced or grade-related.

Professional competence

Habitual and judicious use of communication, knowledge, technical skills, clinical reasoning, emotions, values, and reflection in daily practice for the benefit of the individual and community being served

[Epstein and Hundert, *JAMA*, 2002]

The Council of Europe¹ recognises the need for:

frameworks

standards &

outcomes in the following statements:

- A list of indicators should be developed (on areas already covered by indicators and on others not yet covered) and on outcomes.
- Quality indicators comparable between countries
- International guidance documents on the quality of pharmaceutical care should also include the perspectives of pharmacists.

¹2009 “Pharmaceutical Care – Summary of a Survey of the Council of Europe”. Council of Europe EDQM

Agreed concepts

Competence

- Overarching capacity

Competences

- Functional, *“the what...” of practice*

Competencies (singular = competency)

- Qualities, *“the how...” of practice*

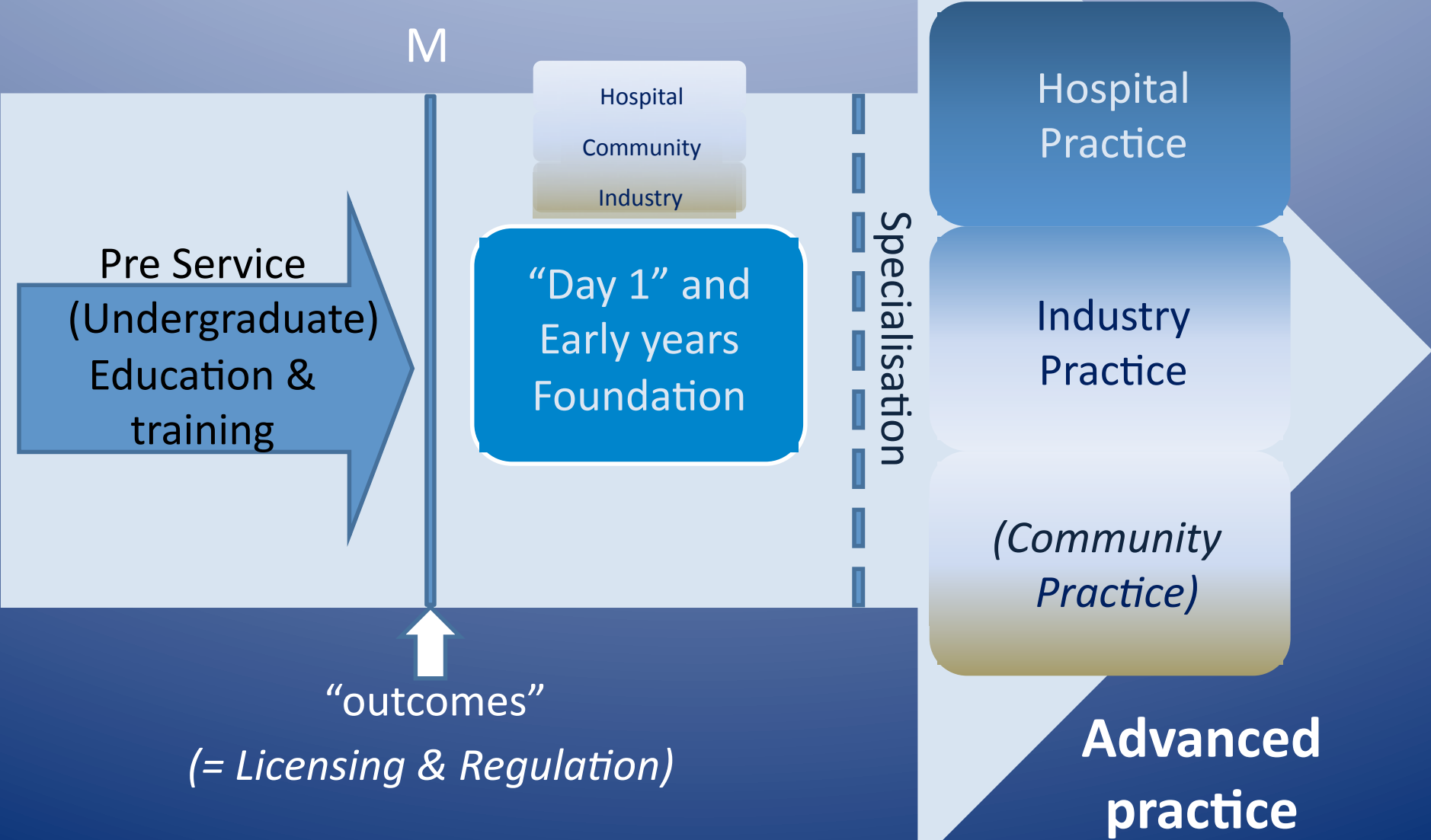
Most “competence frameworks”, standards, stuck here (job lists, functional task descriptions)

Not helpful

Focussing here removes the “content” issue & “we don’t do that job in my country” arguments. And is educationally more valid

This is where “competencies” – or *developmental frameworks* – should lie. And hence practitioner development

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EVIDENCE
& best practice

Health care, economic
and policy needs

“Day 1” and early
years OUTCOMES
framework

EVIDENCE & best practice

Literature	
Research-based, theory and actual trials	25
Policy documents	42
Pre-service curriculum documents	13
	Library size 115
Professional (<i>pre-policy, scoping papers, reform and reviews</i>) from USA, Canada, Australia, NZ, Singapore, UK, EU States	

Policy directions:

Acute care to community care

Medicines management of long-term disease (incl. cancer); multi-HCP

Accessing to medicines and self care

Cognitive pharmaceutical care services (all sectors)

Not just “clinical” – medicines expertise in health service settings

EVIDENCE
& best practice

Health care, economic
and policy needs

“Day 1” and early
years OUTCOMES
framework

Pilot test for validity
with practitioners

Foundation Level Outcomes “core”

- A “core set” of competencies tested for validity in a sample of young and Y5 students (via EPSA)
- 496 responses from 34 countries.
- Overall analysis demonstrated that there is little variance between the “validity” ratings of statements between respondents ($p \leq 0.01$).

Meaning:

These core competencies were recognisable and not associated with significantly different interpretations.

Pilot framework competencies...

examples...

Competency/behaviour (short version)	High Relevance	Low relevance	Not relevant
Information from appropriate information sources	92.8%	7.2%	0.0%
Summarises key points from information gathered	89.6%	10.4%	0.0%
Information needed on a day to day basis up to date	90.6%	7.0%	2.3%
Provides accurate information	84.4%	14.8%	0.8%
Provides relevant information	89.1%	8.6%	2.3%
Provides timely information	82.8%	13.3%	3.9%

EVIDENCE
& best practice

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Pilot test for validity
with practitioners

Finalise schemata

Foundation Level Outcomes

CORE SET OF COMPETENCIES

Draft – core set of competencies, independent of pharmacy sectors defined

DISCUSSIONS

Consensus discussions and communications (EIPG, GPIE, EAHP, NPA/PGEU) (n=62)

FINAL

Agreement of detail and semantics; categories agreed

Basic structure of the Foundation Level Outcomes



FLO (Foundation Level Outcomes)		
PHARMACEUTICAL CARE COMPETENCIES		
Patient Consultation		
Patient Consultation :	Patient Assessment	Able to take medication by history using appropriate questioning or medical records to obtain relevant information from the patient, recognising conditions, symptoms and special needs of individual patient. (ICU situation)
Patient Consultation :	Consultation or referral	Pharmaceutical or complex and acute health problems are properly consulted or redirected to a senior colleague, other healthcare professional or other service.
Patient Consultation :	Recording consultation if applicable to your country	Documents consultation where appropriate in the patients' records (making notes, record of consultation).
Patient Consultation :	Patient consent	Properly getting the approval of a patient for a procedure (like accessing medical records, monitoring for chronic diseases, etc). Agreement with the patient to check previous medical records and/or to use his / her data for future research in line with the ethical requirements.

Behavioural Statements

Behavioural Statement Explanation / Examples

Foundation Level Outcomes framework

Pharmaceutical Care

Patient Consultation

- Patient Assessment
- Consultation or Referral
- Recording consultation if applicable to your country
- Patient Consent

Gathering Information

- Accesses information
- Summarises information
- Up to date information

Selection of Medicine

- Medicine-Medicine Interactions
- Medicine-Patient Interactions
- Medicine-Disease Interactions

Medicine Specific Issues

- Ensures appropriate dose, route, duration
- Sel. of formulation + concentration

Analysing & providing Information

- Evaluates Information
- Problem Identification
- Options, Decisions, Approach

Monitoring Medicine Therapy

- Identification, prioritisation + resolution of Management Problems
- Use of guidelines and protocols
- Record of contributions if applicable

Follow up

- Ensures resolution of problem

Need for the Medicine

- Relevant Patient Background
- Medicine History

Medicines Related Competencies

Knowledge

- Pathophysiology
- Pharmacology
- Adverse Effects
- Interactions

Development & production Medicines

- Formulation
- Development
- SOPs
- QA for public use
- Distribution

Selection of Medicine

- Indication is clear
- Route is legal
- Medicine is appropriate

Control of Medicines

- Medicines

Initial Education: Applied PD/PK DDIs

Medicines Information and Patient Education

- Public Health
- Health Needs
- Needs for Information is identified
- Medicines Information
- Provision of written Information

Professional & management Competencies

Organisation

- Prioritisation
- Actuality

Initial Education: Applied pharmacology Mechanisms and actions

- Mentor / tutor
- Employing organisation
- Linked organisations

Team Work

- Pharmacy Team
- Multidisciplinary Team
- Organisational Team

Professionalism

- Confidentiality
- Recognition of limitation
- Quality accuracy of documentation
- Legislation
- Responsibility of own action
- Confidence
- Responsibility for patient care
- Responsibility for continuing professional development

Clinical Governance

- Clinical Governance
- Dpt. Standard Operating Procedures
- Working Environment
- Risk Management if applicable

Service Provision

- Quality of Service
- Service Development: Key drivers and new services

Budget setting, costs and reimbursement systems

- Service Reimbursement
- Prescribing Budgets

Organisations

- Organisational structure

Initial Education: Ethics, trials, EBM

Staff Management

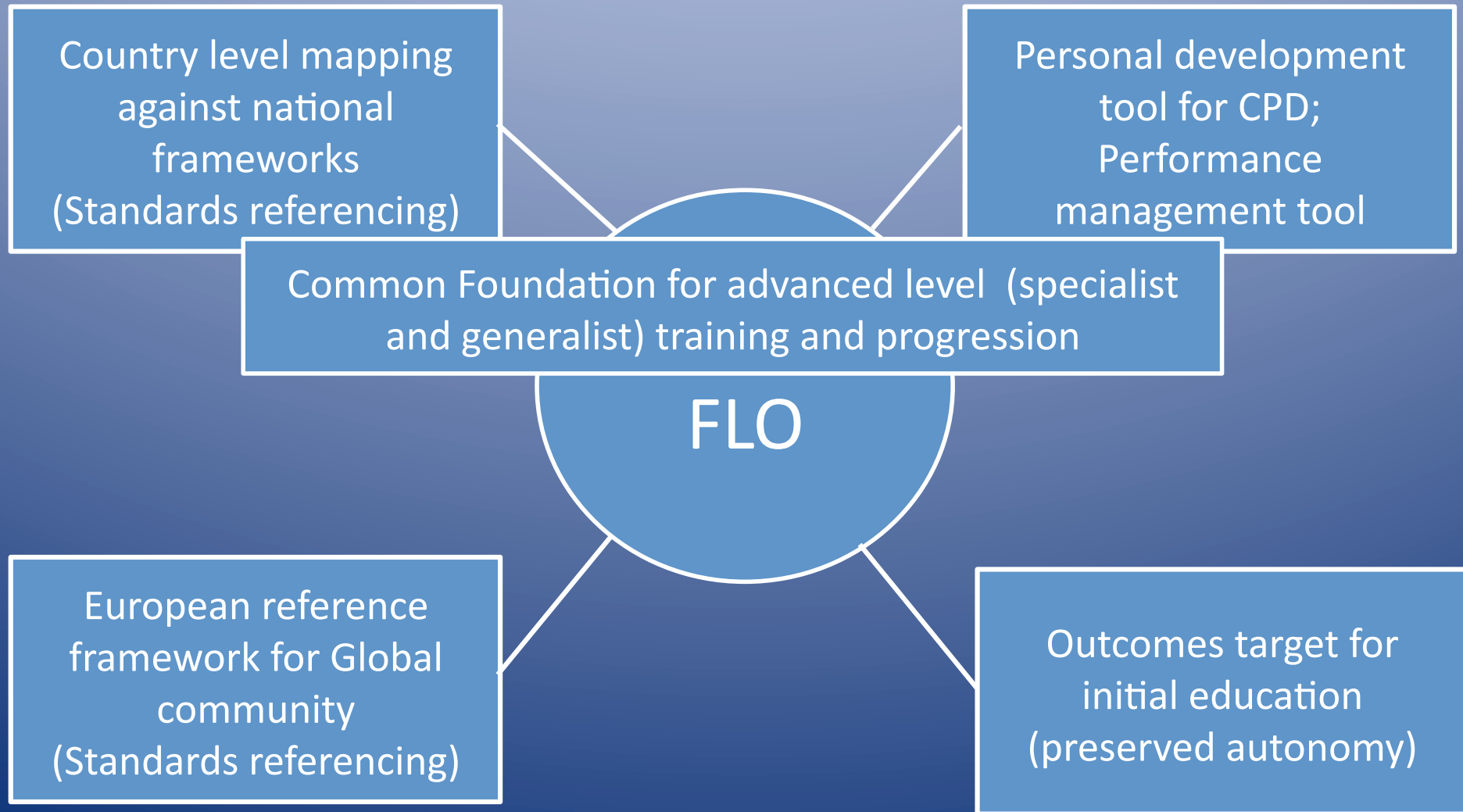
- Performance Management
- Staff development
- Employment Issues

Medicines Purchasing (Procurement)

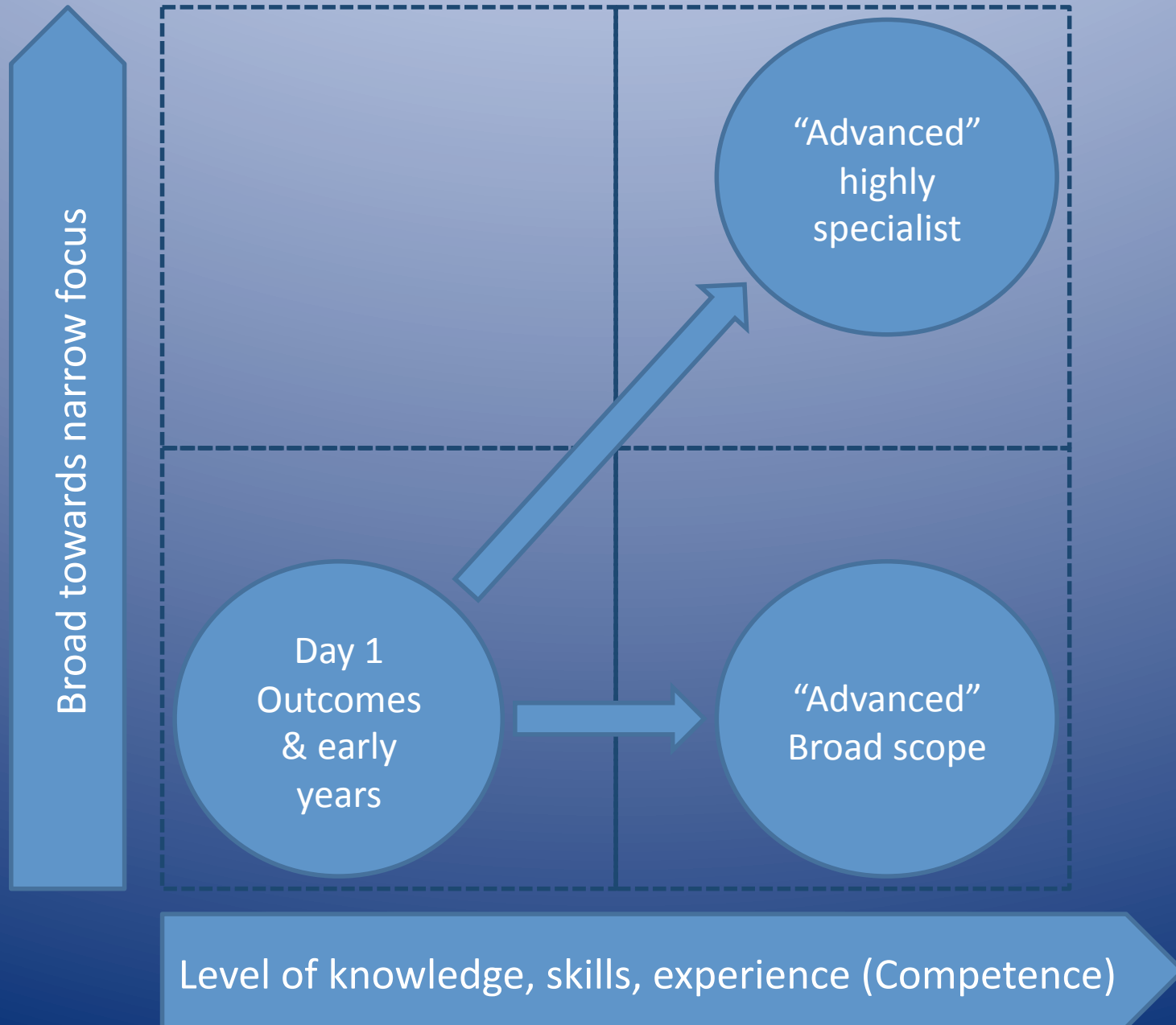
- Pharmaceutical: Describe and Timely Sourcing
- Supply Problems
- Stock Management
- Cost effectiveness

FOUNDATION LEVEL OUTCOMES	IDENTIFIED HEALTH NEEDS and PHARMACEUTICAL SERVICES		
	Health promotion and Public Health policy needs (ie. Vascular Risk, Diabetes, Asthma/ COPD, Smoke Cessation, Obesity, healthy living etc)	New and extended pharmaceutical care services (Medicines reviews / disease management, Joint working / physician, clinics)	Core Services (Management of supply chain, Drugs / Prescription monitoring (i.e. identify interactions, follow up, etc), Access to medicines (including de-regulation (OTC) self-care etc)
PHARMACEUTICAL CARE COMPETENCIES			
Patient Consultation	✓	✓	✓
Providing information	✓	✓	✓
Follow up	✓	✓	✓
Need for the medicine	✓	✓	✓
Selection of medicine	✓	✓	✓
Medicine Specific Issues	✓	✓	✓
Medicines Information and patient education	✓	✓	✓
Monitoring medicine therapy	✓	✓	✓
Evaluation of outcomes	✓	✓	✓
MEDICINES RELATED COMPETENCIES			
Knowledge	✓	✓	✓
Development and Production of medicines	✓	✓	✓
...and so on			

WP3 – Foundation Outcomes and framework



Practitioner progression pathways



PHARMINE WP3

Working towards educational consensus

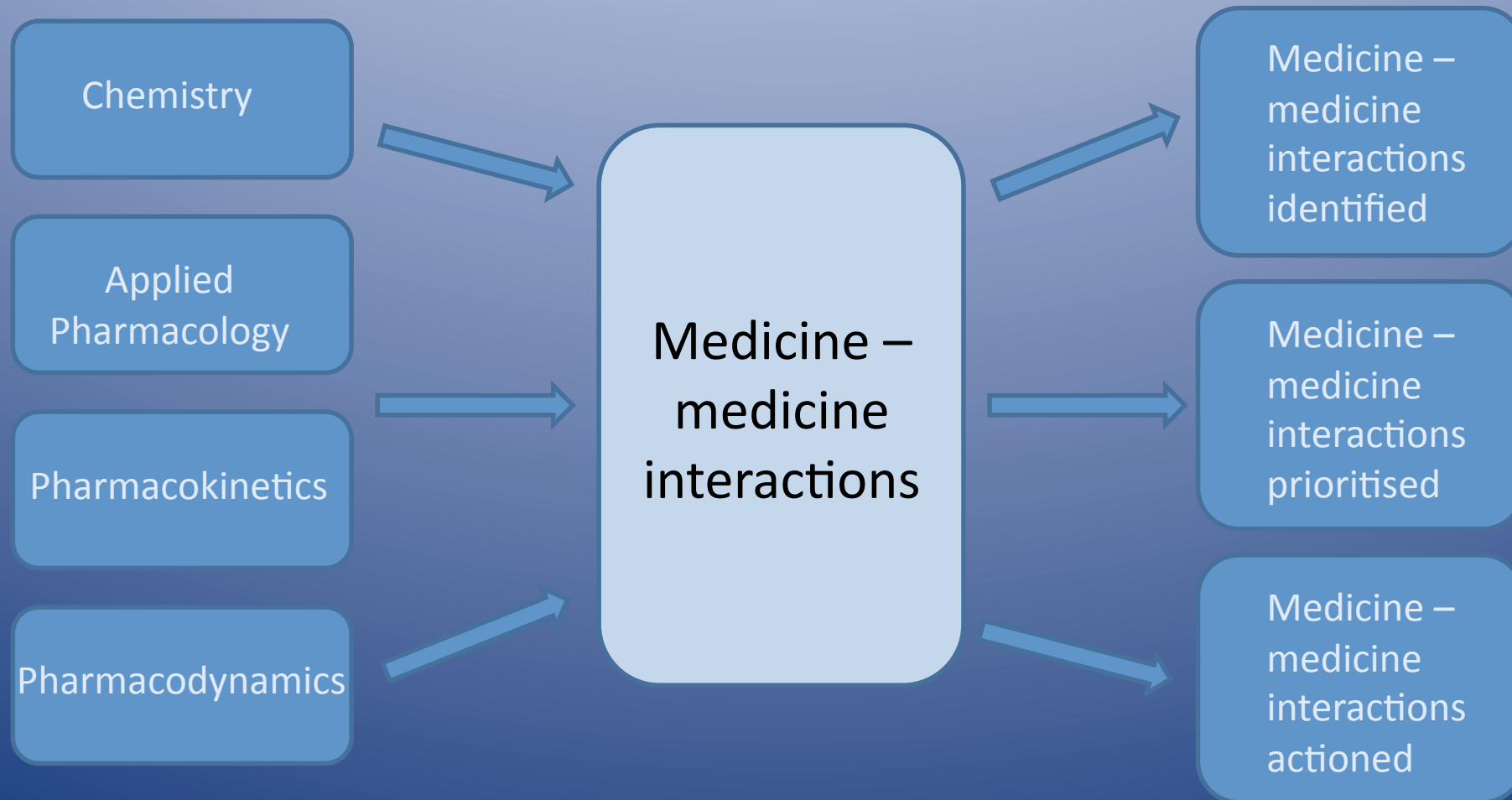
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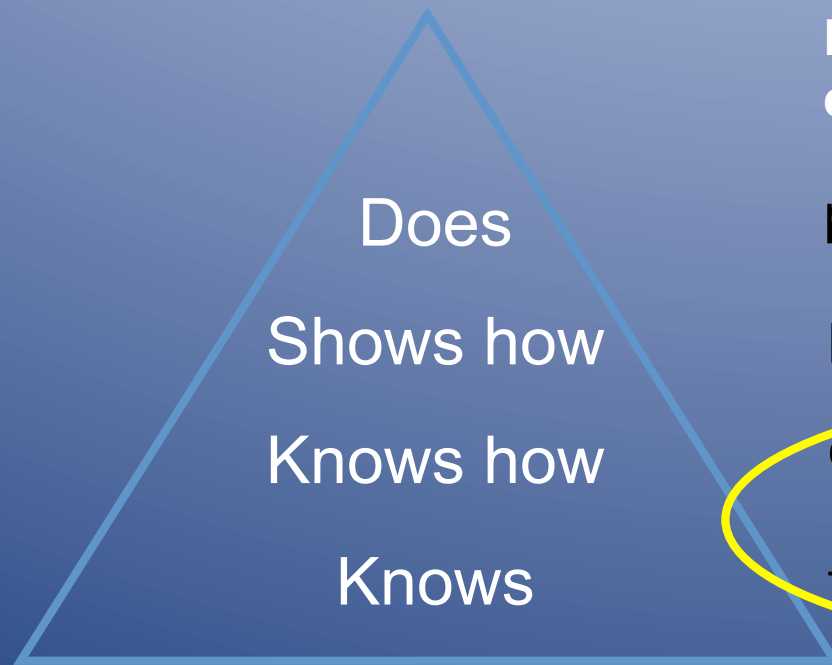
Example of the development and application of FLO competencies
MEDICINE –MEDICINE INTERACTION



WP3 (independent of sector / environment)



Miller's pyramid



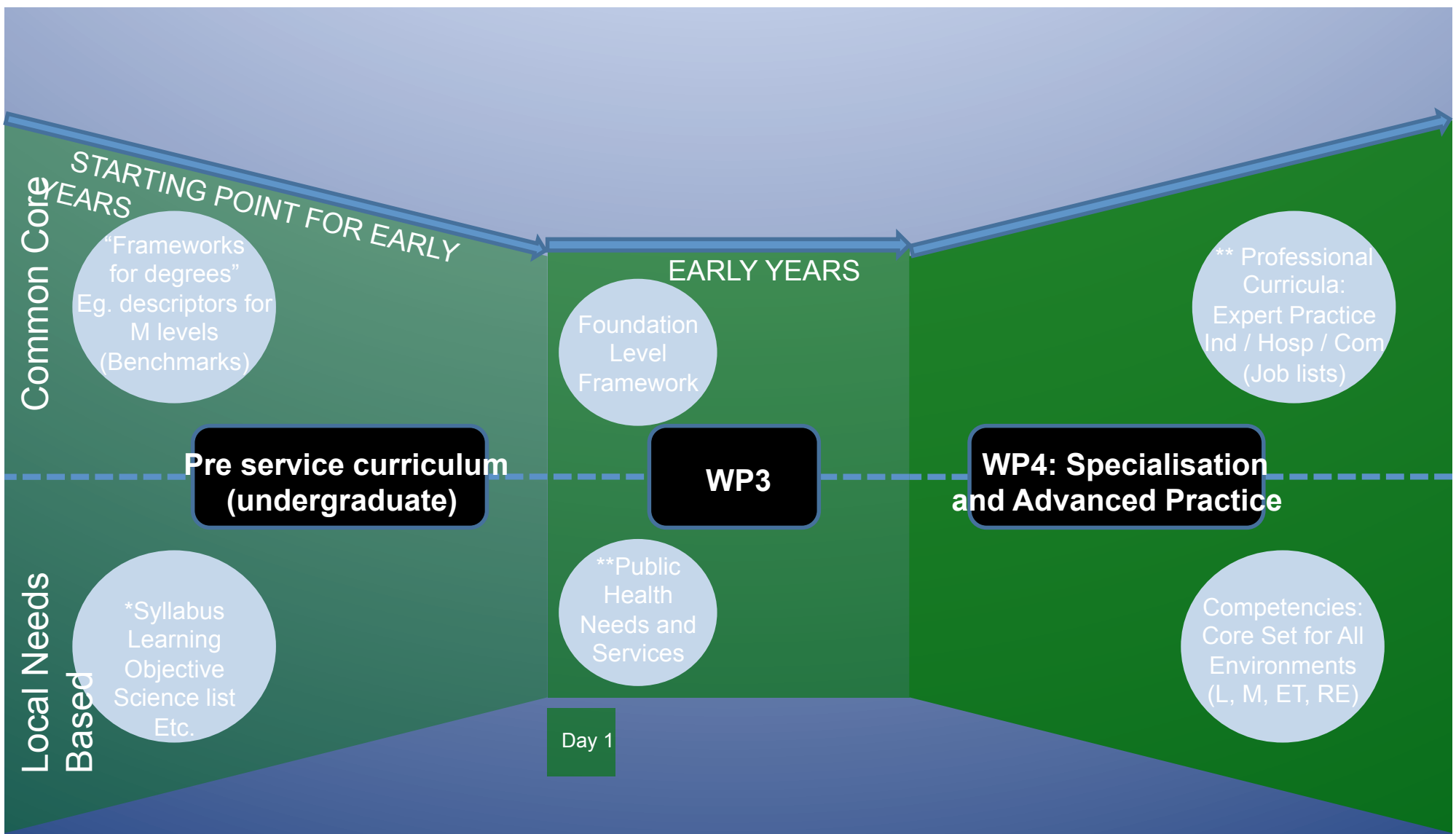
From UG to post-registration education

performance assessment *in vivo*

performance assessment *in vitro*

context assessment

factual assessment



Common Core

Local Needs Based

STARTING POINT FOR EARLY YEARS

"Frameworks for degrees"
Eg. descriptors for M levels (Benchmarks)

Pre service curriculum (undergraduate)

*Syllabus Learning Objective Science list Etc.

EARLY YEARS

Foundation Level Framework

WP3

**Public Health Needs and Services

Day 1

WP4: Specialisation and Advanced Practice

** Professional Curricula: Expert Practice Ind / Hosp / Com (Job lists)

Competencies: Core Set for All Environments (L, M, ET, RE)

Seamless European Education Needs-based Pharmacy Education

* Variances by country
** Locally determined by Governments

A realistic LLL and career pathway

