

DQPLN1&2

Quality Assurance

2010



PHARMINE
*Pharmacy Education
in Europe*

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VRIJE UNIVERSITEIT BRUSSEL (P1)
UNIVERSITY OF LONDON (P3)
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FINAL REPORT

PHARMINE WP6 – Quality Assurance

This report is divided in the following sections: 1. Aims & Partners, 2. Methodology, 3. Timing & Deadlines, 4. Results, 5. Future perspectives

1. Aims & Partners

The PHARMINE WP6 was the Work Package, a Quality Plan type (QPLN), responsible for the consortium Quality Assurance (QA). PHARMINE overall objective was to evaluate and develop strategic orientations aiming at excellence in Pharmacy Education & Training (PET) in each European Higher Education Institution (HEI). This requires the definition of quality reference standards, which are believed to follow other accreditation bodies such as the Accreditation Council for Pharmacy Education in the USA (ACPE). The WP6 aimed to identify key output elements and basic processes specific to QA in pharmacy education, providing feedback to organizations concerned, while handling and harmonizing data for future accreditation.

Three main deliverables (DQPLN) have been planned:

- a. DQPLN1 - QPLN in existing HEIs for pharmacy education in Europe. This product is a result of data collection on the status of European Faculties of Pharmacy with respect to the existence of a QA system (QAS), including its degree of implementation. The report will serve as feedback to HEIs involved and discussed by the PHARMINE partners with the aim of evaluating to which extent existing pharmacy courses are efficiently run in that they produce competent pharmacy professionals.
- b. DQPLN2 - QPLN in the PHARMINE consortium. This product is a result of the collected other WPs' deliverables as planned in the work program (Annex 1.). The report will serve as feedback to PHARMINE partners who will be thus in a position to evaluate to which extent the consortium acted in an efficient way.
- c. DQPLN3 - QPLN in pharmacy education with proposals for accreditation of pharmacy curricula and HEIs. This product aims to establish the PHARMINE QA network for evaluation and help HEIs wishing to incorporate the PHARMINE curriculum. The report will serve as a basis for the establishment of accreditation procedures for EAFP, EWGPE and other organisations. This vital activity will constitute one of the major axes of the future development of the PHARMINE consortium and EAFP.

A QAS consists of goals, devices, activities, procedures and instruments that allow verifying to what extent an HEI fulfills its mission, in compliance with the established standards and references.

Instruments comprise performance indicators to be adequately constructed, evaluating the degree of compliance with the standards.

The WP6 was coordinated through P4 FFUL (Faculdade de Farmácia, Uni. Lisboa, Portugal) in collaboration with the associated partners:

- a. P1 VUB (Belgium) for industrial pharmacy
- b. P3 Uni. London (UK) for community and hospital pharmacy
- c. P2 Nancy Uni. (France) for overall management

Additionally, WP6 kept contact with partners at Lille (France), Athens (Greece), Ankara (Turkey) and Tartu (Estonia), as well as with PGEU (Pharmaceutical Group of the European Union) and ACPE.

2. Methodology

Data associated with QA was collected within the general survey conducted by WP7. The quality section of the questionnaire followed the documents 'A Global Framework for Quality Assurance of Pharmacy Education' (International Pharmacy Federation, FIP) and the 'Accreditation Standards and Guidelines for the Professional Program in Pharmacy Leading to the Doctor of Pharmacy Degree' (ACPE).

The areas surveyed were:

- The existence of QA for education and research in the country and its model;
- The organization and administration of the HEI, comprising governance and curriculum assessment;
- Students related information e.g. admission, progression and representation;
- Faculty staff related information e.g. continuing professional development;
- Facilities and resources e.g. premises, finances.

WP6 received feedback from WP7 regarding QA survey results for all European countries that replied to WP7 questionnaire. This data was handled and harmonized before statistical analysis, comprising feedback to organizations concerned.

3. Timing & Deadlines

PHARMINE was a 24 months project, started in October 2008 and closed in March 2011. The WP6 initiated its work in March 2009 (month 6) with the preparation of a survey to be included in WP7. Data collection occurred from June 2009 (month 9) to June 2010 (month 21), with data base insertion completed in December 2010. After data analysis and synthesis, the present report was prepared.

4. Results

The milestones of WP6 correspond to reports on the following points.

1. QA in pharmacy HEIs

1.1. QA survey general results were the following. These results are detailed in **Annex 1**.

1.1.1. Response

- A total of 27 countries replied to the QA survey.
- From 25 EU countries with HEIs (Luxemburg and Cyprus excluded), 22 countries replied to the QA questionnaire, giving a response rate of 88%
- It was not possible to obtain survey replies from Sweden, Austria and UK.
- Five non-EU countries also replied to the survey: FYROM, Iceland, Norway, Serbia and Turkey.

1.1.2. QAS and working model

- From the 22 EU countries sample, only four had no QAS or it was not implemented, i.e. 82% had a QAS.
- From the five non-EU countries, only one has reported no QA.
- For all participants with an implemented QAS, a combination of an internal and external system was prevalent (68.2%), followed by six with internal and one with an external to the HEI system.

1.1.3. QA Areas

- Participants replied to all six QA areas: mission, planning and evaluation; organization and administration; curriculum; students; faculty staff; facilities and resources.
- From 33 dichotomous yes/no items, all of them had a greater number of positive than negative answers.

- From the 33 items, eight (24.2%) were positive for all participants: two from organization and administration (#7 faculty organization and governance; #8 dean qualifications and responsibilities), two from curriculum (#13a & b knowledge, skills, attitudes and values), three from students (#18 transfer of credits; #22 student representation and perspectives; #23 professional behavior and harmonious relationship), one from facilities (#29 library and educational resources).
- The QA items most absent were two: #3 evaluation of achievement of mission and goals (30.8%) and #30 financial resources (37%). This implies that almost one third of respondents had no official document that comprehensively describes how the HEIs continuously and systematically evaluate all aspects including the achievement of its mission and goals. The most frequent issue of all items was the shortness of financial resources
- Items #5 (autonomy within University), #26 (staff continuous development) and #28 (practice facilities) were also absent for almost 25% of the sample.
- If a general QA performance indicator can be computed by the simple sum of all items, being the maximum value 33, the Table 1 shows the distribution.

Table 1. Distribution of an empirical QA indicator

Valid yes responses	# Surveys	QA score	
		Valid frequency %	Cumulative %
22	2	8,0	8,0
23	1	4,0	12,0
24	1	4,0	16,0
26	1	4,0	20,0
27	1	4,0	24,0
28	6	24,0	48,0
29	6	24,0	72,0
30	2	8,0	80,0
31	1	4,0	84,0
32	2	8,0	92,0
33	2	8,0	100,0
Total	25	100,0	

1.2. Discussion

- A QAS, or conditions to implement a working QAS, seems to exist in most EU countries as well as in non-EU countries, independent from an internal/external model. There were countries working without a QAS, but able to fill out most of the survey. This shows that quality concerns exist, with quality requirements somehow followed by the HEIs even if

there is no formal system. There are good perspectives in terms of accomplishing their educational and research roles.

- However, fundamental principles of quality are not necessarily followed. The absence of a mission statement and evaluation shows a lack of quality culture in HEIs. Although all HEIs responsible are aware of quality policies as a mean to assure better educational and research outcomes, it seems necessary to develop a quality orientation.
- There are areas in which all respondents believed their HEIs were performing according to their requirements: complete curriculum and training, transfer of ECTS, students' representation and professional behavior promotion. These are the pillars of any educational body generating professionals.
- However, HEIs in pharmaceutical education seem to suffer from several constraints. There are financial pressures, which may be linked with limitations in autonomy within the University structure, less suitable facilities, as well as with restrictions on staff continuing professional development and performance review. Although a QAS may add to costs in some extent, it turns out to be a good way of showing HEIs weaknesses and strengths. Thus, realistic and feasible plans may be established to improve HEIs structures, processes and outcomes, promoting recognition and additional funding.

1.3. Study limitations

- There was a good response rate, although EU countries with advanced education systems have not replied, in particular the UK.
- Some European countries with HEIs that have QASs implemented were not reached by the survey, such as Switzerland.
- It was not possible to confirm if participants were referring to their HEIs only or the general country situation.
- The extension of QAS implementation was not confirmed, as well as the quality of the data collected.

2. QAS in the PHARMINE consortium

2.1. A Quality Matrix was built for the follow up of the project phases, milestones achieved and reports produced. These results are detailed in **Annex 2**.

3. A QAS procedure for accreditation of pharmacy curricula and HEIs.

3.1. Quality indicators divided by the classical Donebedian approach (structure, process and outcomes) will only be possible to achieve in a next project, PHARMINE 2. A proposal of such indicators is presented in **Annex 3**, but only as an initial draft.

The overall result aims to establish the PHARMINE quality assurance network for evaluation and help to HEIs wishing to incorporate the PHARMINE curriculum.

5. Future perspectives

Results have shown good opportunities to further explore good examples of QAS in European HEIs, looking to contribute to other HEIs QAS development and implementation. Although a common logic was underlying all countries and HEIs, particularities to each system suggest additional examination.

Difficulties in building a Pan-European Accreditation System have been highlighted. Results from this WP are a starting point to build recommendations on accreditation procedures for HEIs handling Pharmacy curricula. Additional research should produce data to launch the basis of accreditation procedures for EAFP, EWGPE and other organizations. However, this vital activity will constitute one of the major axes of the future development of the PHARMINE consortium and EAFP.

The role of PHARMINE and other subsequent initiatives (QA-PHAR for “*Quality Assurance in Pharmacy Education and Training*”) has been emphasized as a possible way to bring homogeneity to QA in EU PET.

Participating countries:

Belgium, Bulgaria, Czech Republic, Denmark, Estonia, Finland, France, FYROM, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Malta, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, The Netherlands and Turkey.

	Questions	Yes (%)	No (%)	Not applicable (n)	Surveys that included Comments
Quality Assurance (QA)					
	Does your High Education Institution (HEI) have a Quality Assurance (QA) system?	60.0	11.4	1	Germany
	Is the QAS up-to-date and implemented?	57.1	2.9	4	Germany, Greece, Iceland, Italy
	Please indicate whether your system is (a) Internal to the HEI (b) External to the HEI (c) A combination of both	a. 17.1 b. 2.9 c. 40.0	---	5	Germany, Greece, Iceland, Italy, Slovenia
Mission, Planning and Evaluation					
1. Mission	Has your Faculty a published statement of its mission in all of the following topics: education, research, service and pharmacy practice?	80.8	19.2	---	
1. Strategic Plan	Is your Faculty in the process of or has it developed, implemented and regularly reviewed a strategic plan in order to achieve the mission and goals?	84.6	15.4	---	
1. Evaluation of Achievement of Mission and Goals	Does your Faculty have an official document (such as an Evaluation Plan) that comprehensively describes how the Faculty will continuously and systematically evaluate all aspects of the Faculty, including the achievement of its mission and goals?	57.7	42.3	---	
Organization and administration					
1. Institutional Accreditation	Is your Faculty accredited by a national / international educational or professional body?	88.5	11.5	---	
1. Faculty and University Relationship	Is your Faculty an autonomous unit within the university structure?	69.2	30.8	---	
1. Faculty and Administrative Relationship	Does your Faculty have, within the university structure, autonomous administrative services related with academic, research and other scholarly activities?	76.9	23.1	---	
1. Faculty Organization and Governance	Does the structure, organization and staffing of the Faculty foster the development of organizational units, allow appropriate allocation of resources and facilitate the accomplishment of the Faculty's mission and goals?	96.2	3.8	---	Serbia
1. Dean Qualifications and Responsibilities	Is your Dean a chief administrative and academic officer, having direct access to the university Rector or other university officials delegated, with final responsibility for the college or Faculty?	96.2	3.8	---	Estonia
Curriculum					

1. Goal of Curriculum	Does the Faculty's program curriculum prepare pharmacists for any practice setting by developing in graduates knowledge that meets the criteria of good science, professional skills, attitudes and values, and the ability to integrate and apply learning to current and future practice?	96.2	3.8	---	Norway
1. Curricular Development	Does your curriculum define the expected outcomes and is it developed under the collective responsibility of the academic teaching staff with attention to sequencing and integration of contents and selection of teaching methods and assessments?	88.5	11.5	---	
1. Teaching and Learning Methods	Does your Faculty use and integrate teaching and learning methods that have been showed through curricular assessments to produce graduates who became competent pharmacists with critical thinking, problem-solving and self-directed lifelong learning skills?	88.5	11.5	---	Turkey
1. Professional Competencies	Are your graduates able to promote health, provide patient care in cooperation with all partners based upon good therapeutic principles and evidence-based data that may influence therapeutic outcomes, manage and use resources of the healthcare system, and effectively provide, assess and coordinate medication distribution?	92.3	7.7	---	
1. Knowledge, Skills, Attitudes and Values	a. Does your curriculum have all the following areas: fundamental hard sciences, biomedical sciences, pharmaceutical sciences, social/behavioural/ administrative sciences and clinical sciences? b. Do graduates possess the required entry-level knowledge, skills, attitudes and values to practice pharmacy independently by graduation, including the training period as per Dir 2005/36?	a. 100 b. 100	a. 0 b. 0	---	
1. Practice Experiences	a. Does your program curriculum include at least 6 months of training practice in community/hospital pharmacy? b. Are the practice experiences within the curriculum appropriately structured and sequenced to integrate, apply, reinforce and advance the knowledge, skills, attitudes and values developed through other components of the curriculum?	a. 92.3 b. 84.6	a. 7.7 b. 84.6	---	
1. Assessment and evaluation of student learning and curricular effectiveness	Does your Faculty use assessment measures throughout the program to evaluate the attainment of the desired educational outcomes and professional competencies, to improve student learning and to improve the curriculum and its delivery?	84.6	15.4	---	Turkey
Students					
1. Organization of student services	Does your Faculty have organizational elements devoted to student services e.g. a confidential system of student records; and financial, academic and social support services for students?	92.3	7.7	---	

1. Admission criteria, policies and procedures	a. Does your Faculty produce and make available to students criteria, policies, and procedures for admission to the degree program? b. Does your faculty have the final responsibility for selection and enrolment (numbers) of students?	92.3	7.7	---	Turkey
1. Transfer of credits	Does your Faculty produce transfer credits (ECTS) based on rational procedures and defensible assessments, and makes that information available to students?	100	0	---	
1. Progression of students	Does your Faculty produce and make available to students criteria, policies and procedures for academic progression?	96.2	3.8	---	Poland
1. Students complaints policies	Does your Faculty produce and make available to students a complaints policy that includes elements related to student rights and appeal mechanisms?	96.2	3.8	---	France
1. Program information	Does your Faculty produce and make available to students a complete and accurate description of the degree program, including its current accreditation status (if applicable)?	96.2	3.8	---	France
1. Student representation and perspectives	Does your Faculty involve student representatives on appropriate program committees, such as accreditation self-studies, assessment, curriculum and strategic planning?	100	0	---	Turkey
1. Professional behaviour and harmonious relationship	Does your Faculty provide an environment and culture that promotes professional behaviour and harmonious relationships among students, staff and administrators?	100	0	---	
Faculty Staff					
1. Faculty staff quantitative factors	Does your Faculty have a sufficient number of qualified full-time staff to effectively deliver and evaluate the degree program, while providing adequate time for staff development, research and other activities?	73.1	26.9	---	
1. Faculty staff qualitative factors	Does your Faculty have qualified staff with the required professional and academic expertise and who, individually and collectively, are committed to its mission and goals?	96.3	3.8	---	Serbia
1. Faculty staff continuing professional development and performance review	Does your Faculty have effective programs for performance review and continuing professional development for full-time, part-time, and voluntary faculty staff, consistent with their responsibilities in the program?	73.1	26.9	---	
Facilities and Resources					
1. Physical facilities	Does your Faculty have adequate and appropriate physical facilities and equipment to achieve its mission and goals?	73.1	26.9	---	
1. Practice facilities	Does your Faculty have criteria for the selection of its practice sites and work collaboratively with those sites to advance patient care services provided there?	73.1	26.9	---	

1. Library and educational resources	Does your Faculty ensure access for all staff and students to a library and other educational resources, sufficient to support the degree program and to provide for research and other activities in accordance with its mission and goals?	100	0	---	
1. Financial resources	Does your Faculty have the financial resources necessary to accomplish its mission and goals?	46.2	53.8	---	Turkey

Annex 2. QAS in the PHARMINE consortium

PHARMINE				No activity																																			
Deliverables				Activity																																			
				Deliverables date dd-mm-yyyy																																			
Work package number	WP	Year	2008												2009												2010												
			Month	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9			
		Time =>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24													
1	Management and steering committee	DMNGT1	e-mail	✓	✓	✓	✓	✓	✓	✓	✓	?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
			website	✓	✓	✓	✓	✓	✓	✓	✓	✓	?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
		DMNGT2	e-mail							x																												✓	
			website							x																													✓
		DMNGT3	e-mail																																				✓
			website																																				✓
2	Dissemination of results	DDISS1	e-mail																																		✓		
			website																																			✓	
		DDISS2	e-mail																																			✓	
			website																																				✓
3	Exploitation of results - recommendations on competency curriculum for professional pharmacists	DEXP3.1							x																											✓			
		DEXP3.2																																			✓		
		DEXP3.3																																				✓	
4	Exploitation of results - recommendations on competency curriculum for pharmacy specialisation (hospital)	DEXP4.1							x																												✓		
		DEXP4.2																																			✓		
		DEXP4.3																																				✓	
5	Exploitation of results - recommendations on competency curriculum for pharmacy specialisation (industrial)	DEXP5.1							x																												?		
		DEXP5.2																																			✓		
		DEXP5.3																																				✓	
6	Quality assurance	DQPLN1																																			✓		
		DQPLN2																																			✓		
		DQPLN3																																				x	
7	Development - Databank of EU HEIs delivering pharmacy education and training and task force for the survey of competency curricula.	DDEV1																																		✓			

Annex 3. Proposal for Quality Indicators for pharmacy HEIs

QAS Indicators

1. Structure

- Mission, goals and the values of the school expressed in
 - Teaching, research and scholarly activity
 - Services to the community
 - Contribution to pharmacy practice
 - Advancement of the profession
- Organization, administration, leadership and communication
 - Leadership
 - Organizational structure
 - Committees, Councils and meetings
 - Internal communication and decision-making process
- Collaborative relationships
 - Within the University and with professional organizations
- The curriculum
 - WP7
- Resources
 - Staff: teaching, administrative and lab supporting
 - Financial resources
 - Physical facilities
 - Lab supporting systems
 - Facilities for Pharmacy practice
 - Library and learning/educational resources

2. Process

- Process
- Planning
- Enrolment management
- Evaluation and assessment
- Academic policies and procedures
- Student services
- Student representation and input
- Curricular development and improvement
- Teaching and learning methodologies
- Student assessment methodologies

Teaching and supporting Staff development and evaluation

3. Outcomes

Educational outcomes and competencies

Competency-based Pharmacy programs; pharmacy specific competencies:

Ethical, caring and evidence-based practice

Cultural competence

Application of quality improvement principles

Use of information technologies

Working in interdisciplinary and inter-professional teams

Evaluation of achievement of mission-related outcomes;

Student curriculum and curricular effectiveness