A General Guide for Education and Training in Patient Safety

EUNetPaS
European Union Network for Patient Safety

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Contents

Foreword

"Patient Safety is a global health-care issue and a priority. As patient safety is gaining momentum, this EUNetPaS guide on education and training for patient safety will be an important contribution to the patient safety agenda globally. The WHO Patient Safety Alliance will continue its collaboration with EUNetPaS."

Sir Liam Donaldson,
Chair of WHO Patient Safety

A Culture of Safety

In 1991 the Harvard Medical Practice[1] study was published. It was an early investigation into the number of adverse events in healthcare showing that 3.7 % of hospitalised patients in New York had experienced an adverse event and 13.6% of these had died as a consequence. In 1995 another study in Australia[2] showed that 16.6 % of patients in Australian hospitals had experienced an adverse event. Since then a number of industrialised countries have carried out their own investigations about the size of the problem (e.g UK 2001[3]; Denmark 2001[4]; Canada 2004[5], Spain[6]). Depending on the method used most of these investigations have shown that about 10% of patients are harmed while they are hospitalised. The majority of surveys are conducted in the acute sector and there is little knowledge about the size of the problem in primary care.

Our current suboptimal ability to manage risk is not due to neglect but it rather stems from significant deficits in developing a safety oriented environment in healthcare. A substantial proportion of the adverse events which occur annually in healthcare settings in the EU are preventable and effective interventions can be introduced to reduce the effect of error on morbidity and mortality.

What is required is a pervading culture of safety across the entire healthcare system. A "safety culture" is a complex and enduring trait reflecting fundamental values, norms, assumptions and expectations. Cultural dimensions are confronted and made visible through safety management practices which are reflected in the safety climate. Safety culture must be viewed as a dynamic and multidimensional concept, influenced by a wide variety of individual and group-related personal and professional, organisational, ethical,

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1 Brennan TA, Leape LL, Laird NM et al (1991) Incidence of adverse events and negligence in hospitalised patients. Results of the Harvard Medical Practice Study I New England Journal of Medicine 324 (6):370-6.

2 Wilson RM, Runciman WB, Gibberd RW, Harrison BT, Newby L, Hamilton JD (1995) The Quality in Australian Health Care Study.. Medical Journal of Australia 163:458-71.

3 Vincent C, Neale G, Woloshynowych M. (2001) Adverse events in British hospitals: preliminary retrospective record review. British Medical Journal 322:517-9

4 Schiøler T, Lipzak H, Pedersen BL et al. Ugeskr Læger (2001) Forekomsten af utilsigtede hændelser på sygehuse. En retrospektiv gennemgang af journaler.); 163 (39): 5370-8. (in Danish with English summary)

5 Ross Baker G, Norton PG, Flintoft V et al. (2004) AThe Canadian Adverse Events Study: the incidence of adverse events among hospital patients in Canada. Journal American Medical Care 170(11):1678-86.

6 Jesus Ma Aranaz-Andrés, C. Aibar-Remón, J. Vitaller-Burillo, J. Requena-Puche, E. Terol-García, E. Kelley, M.T. Gea-Velazquez de Castro, and the ENEAS work group (2009) Impact and preventability of adverse events in Spanish public hospitals: results of the Spanish National Study of Adverse Events (ENEAS).International Journal for Quality in Health Care 2009 21(6):408-414;

social, and societal factors. Further discussion of this important topic can be found in the outputs of WP2 of the EUNetPaS project

Healthcare professionals are aware of the need to embed a safety culture within their organisational environment and many pro-actively seek opportunities to learn and to implement safety practices. These guidelines are designed to support such activity.

Executive Summary

These guidelines are the results of European collaboration within the EUNetPaS multi-professional and multi-stakeholder collaboration platform for Patient Safety and particularly its objective 2- Patient Safety Education and Training. Their aim is to support healthcare providers at local level who may be considering developing and/or commissioning a learning intervention to support patient safety.

There are a growing number of curricula approaches in the public domain. This document is different in that it is designed as a *practical* tool and it is accompanied by a web-based version which is intended to further enhance its ease of use. It is context specific; and the examples and supporting evidence from Member States support the fact that one-size-does-not-fit-all. The approach goes beyond curricula that are currently available and that focus on the knowledge and skills agenda that is "taught" in formal classrooms; these guidelines focus also on improving performance via learning and sharing in the workplace.

Lastly, the approach described here takes into account the fact that patient safety is an evolving and constantly improving domain. Therefore the guidelines avoid being prescriptive about the *content* of learning interventions; they emphasise the need to focus on the *process* involved in learning and in improving. This approach builds on work undertaken within other work streams in the EUNetPaS project to ensure that a patient safety culture evolves.

This document is addressed at a variety of audiences:

- Those who are involved in policy making such as government officials and civil society.
- Curriculum developers (e.g. for undergraduate education);
- Professional Associations who propose and / or regulate Continuous Professional Development (CPD) and post graduate education
- Clinical placement managers (at both undergraduate and post-graduate levels);
- Quality, Patient Safety, or Risk Managers;
- Health professionals;
- Patient groups;
- Non-clinical support staff, including support for facilities and logistics/administration.

All professionals involved directly or indirectly in clinical care as well as the patient / carer, must have a minimum level of knowledge, skills and behaviours to promote patient safety. In this document it is proposed that healthcare professionals, according to their role and tasks in the provision of health care, should demonstrate ability in:

i. Foundation knowledge, skills and behaviours for patient safety

ii. Assuring patient safety

iii. Adopting systems-based working

iv. Enabling a patient safety culture

v. Setting direction for quality and safe healthcare

The aforementioned 5 descriptors offer a map of the necessary knowledge, skills and behaviours; these are then sub-divided to offer detail of each descriptor needed amongst stakeholders proposed later in this document (those who sponsor; those who design and teach; those who deliver core services; those who support core services; patients).

Although every stakeholder will not be required to be proficient across the entire range, it is arguable that every stakeholder should be proficient in a proportion of the range.

This document sets out the scope of education and training for patient safety and the principles that govern patient safety interventions. This document further provides detail of **what** we mean by patient safety (in view of the varying definitions in use across member states); **who** is involved in patient safety; and **how** education and training for patient safety is addressed. In this way the document intends to offer a route for commissioners and providers to work together to achieve optimal outcomes.

The website offers examples of strategies, activities and relevant learning interventions that are currently being provided in member states.

What makes these guidelines different

This document has been arrived at following extensive collaboration by representatives of national healthcare administrations, Universities, national patient safety platforms and EU stakeholders representing healthcare professionals, institutions (hospitals) and patients who have shared the experiences of their national members and those of the internal networks which they represent. The report has emerged as part of those activities of the European Network for Patient Safety (EUNetPaS), that focus on the topic area of Patient Safety Education and Training.

While the challenges for reducing unintended harm in healthcare are common, the priorities, the degree of maturity of patient safety policies and actions, and the resulting development of a patient safety culture in healthcare settings varies considerably across the European Union.

The operation of EUNetPaS provides an opportunity to add value to national work by exploiting the Network's consolidated knowledge and - where feasible – the consolidated resources by pooling and profiting from national initiatives, knowledge and resources.

> ***Is it possible that learning interventions and resources produced in any given national setting may be transferred to another national context?***

We believe that this can become possible if we arrive at a commonly accepted set of principles that govern the development, delivery and evaluation of any fit-for-purpose learning intervention. Once such collective values have been established, we further need to build a common framework for scoping, classifying and assigning a value to the contributed resources that might be shared within the Network.

The *General Guide for Education and Training in Patient Safety* document addresses these two challenges and has been endorsed by all member states.

Aim and Audience of these Guidelines

This document is intended to offer practical guidance to address the needs of different stakeholders. The intention is to make the guidance applicable to all member states and to a wide range of contexts and scopes within the broader objectives for patient safety Education and Training as set forward by the «*Council Recommendation on patient safety and the prevention and control of healthcare associated infections*» [7]:

" Member States should promote education and training of healthcare workers on patient safety by:

(a) Encouraging multi-disciplinary patient safety education and training of all health professionals, other healthcare workers and relevant management and administrative staff in healthcare settings;

(b) Collaborating with organisations involved in professional education in healthcare to ensure that patient safety receives proper attention in

[7] *Council Recommendation on Patient Safety, including the prevention and control of healthcare associated infection, COM (2008)837 final/2*

higher education curricula and in the ongoing education and training of health professionals."

The aim of these guidelines is to support relevant stakeholders at local level who may be considering developing and/or commissioning a learning intervention on patient safety, and is intended to enable them to have informed discussions with providers of education and training.

The guidelines may be used in many ways, for example to enable judgments to be made about the value and applicability of a learning intervention; to enhance understanding of the alternative approaches that are available and that have been tested and evaluated; to guide the development of new interventions; or to evaluate an existing intervention in order to judge its fitness-for-purpose. Ultimately the purpose of the guidelines is to promote transferability of methods (process and content) from one member state to another.

Content of the Guidelines

This document promotes a common set of priorities, as well as a practical framework developing and continuously improving knowledge, attitudes, and skills of all relevant health actors for patient safety, as well as promoting patient centred care and a culture for patient empowerment.

The content of this document has been developed following an analysis of representative international evidence. In order to better understand how education and training in patient safety is organized today in the EU, information on representative strategies and learning interventions developed in different member states was collected and studied; the examples offered on the website have been drawn from these contributions. The guidelines are not meant to be exhaustive but rather to stay at the level of essential elements and concepts that can then be transferred to different contexts. Similarly they are not prescriptive but rather offer a variety of examples of how one may implement them.

It is generally accepted that knowledge, attitudes, skills, and the needed learning interventions to build them, must be developed according to responsibilities rather than based on professional groupings. However the content of interventions, in the form of case studies, practical work or projects, will generally need to be tailored to the specific context of use. Considerations and specific guidance on how this may be done forms part of this document and the website contains examples of learning interventions applying the same principles applicable to different audiences and contexts.

To aid understanding and to ensure that as many approaches as possible are included, whilst providing comparability of usage across member states, a glossary of commonly used terms has been included at ANNEX B.

In chapter 1, an overview of EU level collaboration initiatives for Patient Safety Education and Training is presented. It is followed by a scoping of the domain of patient safety education and training which forms the premises for the development of the considerations in the following chapters.

In chapter 2, practical guidance is developed around:

(i) A set of guiding principles

(ii) The main elements of descriptors of a learning intervention for patient safety-- *What* is addressed in relation to patient safety, *Who* is involved in patient safety, *How* is education and training for patient safety addressed.

(iii) A process for design and delivery of a patient safety curriculum

(iv) Criteria to guide the commissioning of learning interventions

(v) Challenges and future directions for collaboration on patient safety education and training

By examining **what** we mean by patient safety (in view of the varying definitions in use across member states); **who** is involved in patient safety and **how** education and training for patient safety is addressed, the document intends to offer a route for commissioners and care providers to work together to achieve optimal outcomes.

1. INTRODUCTION

1.1. European Collaboration for Patient Safety

All national and international guidelines on patient safety converge to the need to address simultaneously and in a multidisciplinary way a number of priority areas:

- to support the development of national policies and programmes for patient safety with a focus on the proactive design of safe healthcare systems;
- to develop a mindset for improving patient safety, focused on reducing the harm and suffering of patients and their families and a culture that is receptive to effective working relationships across disciplinary domains; the establishment of transparent, open and honest healthcare professional / patient relationships; and on the involvement, support and empowerment of citizens and patients in their health matters;
- to develop and maintain a culture for patient safety which begins at the time of initial professional training and continues throughout professional life. Patients must be similarly provided with information and education on patient safety and their rights to safe healthcare services and redress;
- to design healthcare systems that make a paradigm shift to focus on continuity of care and information flow across the different levels of care provision and the different actors involved;
- to enable healthcare environments to become learning organisations, encouraging openness and transparency around adverse events, shifting from a blame and shame culture to a supportive and learning paradigm of continuously improving by exploiting such knowledge.

Several recent studies (see ANNEX A, Evidence Base) have documented an alarming deficiency in our current systems of care for preventing adverse events**.**

Member states have for some time been discussing how to implement appropriately the Bologna Declaration (2003) which committed member states to reform their systems of higher education in a convergent way in order to be more transparent and to aid transferability. Follow-up debate on the feasibility of implementing its recommended actions within healthcare education has focused on the idea of creating standardised core curricula with well defined educational goals throughout Europe. Regardless of specific local variations it is believed that an articulated minimum level of knowledge, attitudes, and skills for all stakeholders would be of benefit to patients, clinicians and healthcare systems however defined.

The European Network for Patient Safety (EUNetPaS) is an example of civil society and member state collaboration around a high priority policy area. The collaboration has been established as part of a project which is jointly funded by the collaborating member states, EU stakeholders and the European Commission. The project was officially launched in February 2008. The project aims to establish an umbrella network of all 27 EU Member States national platforms for Patient Safety and EU stakeholders to encourage and enhance collaboration in the field of patient safety. During the lifetime of the project, EUNetPaS focuses on four interlinked key topic areas in an integrated approach:

1. Promoting a culture of Patient Safety (PS) – national representatives and experts are playing a key role in the collection and exchange of information concerning Patient Safety at the member state level;
2. Promoting Patient Safety education and training in member states (MS), that is inspired by common principles and values;
3. Implementing Reporting and Learning Systems – the identification, collection and structuring of patient safety information within the EU, providing member states with a database of solutions to related issues which they can draw upon;
4. Piloting Implementation of Medication Safety – Improving medication safety in hospitals by identifying good practices, translating them into tools and testing these tools in selected hospitals.

Specifically, the objectives of Key Topic area "Patient Safety Education and Training" are being pursued through:

- building a knowledge space for the mutual exchange of experience and knowledge about learning interventions amongst healthcare professionals and those involved with patients and caregivers;
- reaching out to decision-makers in Patient Safety Education and Training, at national and European level, to promote the integration of these experiences and knowledge in undergraduate and postgraduate medical and nursing curricula and in lifelong learning programmes.

1.2. Scope of Education and Training for Patient Safety

The goal is to optimise patient safety by enhancing the education of healthcare professionals and others concerned with the achievement of safe practice in healthcare. In this section of the guidelines we highlight the domains of patient safety knowledge, skills and behaviours,that are addressed in greater detail later in the document. These are competences which are necessary for appropriate contributions to be made towards safe heathcare. They comprise in a mutually dependent way:

- ***Knowledge*** and understanding about the core principles and the key domains of patient safety
- ***Skills*** required to address issues of identification / detection of adverse events and near misses caused by or associated with healthcare delivery, and the management and prevention of unintended harm for patients (including the capability to apply appropriate methods and instruments)
- ***Behaviours*** (attitudes) which will lead to the improvement of outcomes, the avoidance of preventable harm, and the development of reflexive approaches to healthcare delivery.

Generic key domains and action fields of patient safety include:

1. The creation of a safety culture
2. The identification and measurement of problem fields (Patient Safety epidemiology)
3. Cause analysis of adverse events and near misses
4. Management and coping strategies for adverse events and near misses

5. Prevention of errors, adverse events and near misses

The creation of a culture of safety requires a sound understanding of patient safety issues, and shared values and beliefs – (see section 2.1 - guiding principles for patient safety). A working environment and a daily routine which provide the support to enable reflexive action and open discussion about near misses and adverse events is the ideal way to prevent errors and to detect weak points in delivery mechanisms, which may contribute to preventable harm.

Within the framework of the World Alliance for Patient Safety the World Health Organisation has developed a Patient Safety Curriculum Guide for Medical Schools[8]. The Curriculum Guide is constructed around 11 topics and accompanying slides are developed for each topic. Our evidence base (see Annex A) confirms that key issues to be addressed include the need for:

- Patient-centredness – concentration on patient outcomes and a solution–oriented approach. This includes involving and empowering the patient in patient safety issues

  Key words: harm; systems failures; blame; patient-centeredness;

- Systems approaches – conceptualizing healthcare as a complex system and including the human dimension of error–prone action. Awareness of human/systems interactions can enable the negation of blame and shame, and coupled with an understanding of human factors research and the experience of other industries (failure mode event analysis; reliability in organisations; ergonomics and workplace design), can arrive at a safe healthcare culture. The analogy of the learning organisation is appropriate, which suggests the collation and integration of learning experiences of individuals and groups. This includes knowledge about the fundamentals of organisational change, and the implicit and explicit knowledge contained in organisations (including tacit knowledge) and its transfer from the individual/group to the organisation.

  Key words: complexity; systems; human factors; reliability; error; near miss; hindsight bias; clinical risk; risk assessment; monitoring

- Leadership, teamwork and self-actualisation–understanding the multi-professional and multidisciplinary nature of teamwork that is required as a fundamental component of safe healthcare. First line leadership is a function which enhances the development of an organisation towards safe healthcare and encourages a safety culture, and every health professional irrespective of role should act as a role model for other team members.
  Key words: teamwork; values; roles and responsibilities; leadership; communication

[8] *WHO Patient Safety Curriculum Guide for Medical Schools*
http://www.who.int/patientsafety/education/curriculum/download/en/index.html

2. GUIDELINES FOR EDUCATION AND TRAINING IN PATIENT SAFETY

2.1 Education and Training for Patient Safety Guiding Principles

There are a number of established principles that underpin learning that will support patient safety (see Annex A, Evidence Base). Together they provide a framework for action which has been used for the development of these guidelines.

Principle 1. Patient Centred: Learning must take a patient centred approach recognising that the care of the patient is the central concern of any curriculum to support patient safety.

Principle 2. Applicable to all settings: Any environment where patient safety is a concern is a constituency for developing and continuously improving knowledge, skills and attitudes for patient safety. This includes hospitals, health outpatient clinics, rehabilitation centres, homes and public buildings.

Principle 3. Everyone's business: Healthcare is delivered by teams of healthcare workers (the team to include the patient themselves). Patient safety is everyone's business, and any curriculum must take into account the need to inform and educate every member of the community about the prime concerns of patient safety.

Principle 4. Team oriented: Patient safety crosses professional boundaries and the curriculum is presented in a multi-disciplinary and multi-professional way. Although it is essential that patient safety learning interventions take into account a multidisciplinary approach, this does not mean that every learning intervention has to include all health professions as part of the target group.

Principle 5. Multidimensional: The development of competences for patient safety is concerned with *behaviours* as well as *knowledge* and *skills*. Thus the focus is to develop competence in the workplace, based upon the need for practitioners to take a reflective approach to learning, and continually to develop their practice for patient safety.

Principle 6. Context Specific: Learning interventions take as a premise the centrality and relevance of the workplace, recognising that patient safety is context specific, and therefore should include organisational responsibilities.

Principle 7. A Continuous Professional Activity: The mental model of a healthcare professional concerned with patient safety is demonstrated by continuous learning and appropriate practice. Competences for Patient Safety must be developed before an individual enters the profession as part of higher education programmes and be sustained as part of continuous professional development.

2.2 What kind of education and training for patient safety will support these principles

The principles listed above stress the need for collaborative and expansive learning that will provide a conduit to support patient safety. This kind of learning can be structured formally, or it can be personalised, experiential, and informal. Formal (structured) learning enables the development of a wide range of work-enhancing competences. Informal learning, it can be argued, develops a greater capacity for self-determination and self-evolution, partly because it is not so bounded as formal learning, having no prescribed curriculum. The wider benefits of informal learning include a multiplicity of practices, embodying things like self-reliance, personal reflection, and critical analysis. To achieve optimal outcomes, a patient safety intervention should encourage both formal and informal learning.

Learning of this kind is centred around *reflection* on work practices; it is not just about acquiring knowledge and a set of technical skills, but rather it is a case of reviewing and learning from the experience of work. Learning arises from actions and problem-solving as challenges arise within work contexts during everyday performance. Work-based learning of this kind sees the creation of knowledge as a shared and collective activity whereby people discuss ideas and share problems and solutions. It requires not only the acquisition of new knowledge but the acquisition of the ability to learn *how* to learn. This approach emphasises active autonomy to *learning* on the part of the learner rather than reactivity to *being taught*.

Thinking in a critical way enables us to learn, and this goes on continually. The challenge for providers is to encourage learners to learn through their own actions, and to share their learning with their colleagues, so that we can also learn from each other.

If our starting point is that work provides the theoretical base on which we base learning then this has significant implications for the shape and content of the curriculum and the way that learning is recognised. We are more concerned with outcomes that relate to performance – behaviour – than those that relate to knowledge and skill – important though they are. Learning that focuses on what we do and how we do it should be judged by how we demonstrate our new understanding daily in the workplace. Behaviours can be described and criteria can be developed against which competence can be judged. The aim is to articulate the important outcomes of learning that will enable better performance in the workplace and thus impact on organisational performance and change.

2.3 WHO is involved in education and training for patient safety?

All stakeholders are involved in education and training for patient safety, including patients and carers. There is a foundation level of understanding that all stakeholders require, and there are greater depths of understanding required of other practitioners. For example, those directly involved with patient care (nurses, doctors, allied health professionals etc) will require a high level of competence in the field of patient safety. New employees and those who are not directly involved in patient care (support staff; managers etc) may require a lower level of competence, although they will still require some understanding of the significance and practice of patient safety. These groups of staff may be deemed to require understanding of the basics. Policy makers and sponsors

of patient safety will equally require a less in-depth understanding of the operation of patient safety but they will require significant understanding of policy and regulatory issues. Those who assist in building the understanding of others need to have the highest level of competence in the field of patient safety.

These broad categories are organised in 5 groups in Table1. Note that the groups are not intended to be hierarchical and there is no overt progression from group to group. Equally, note that the number of professionals in each group will vary and some groups (for example group 2, (those who provide core services) may require several sub-divisions to take account of the variety of practitioners that it covers. It is perhaps inevitable that member states distinguish differently between these groups, and some creativity will be necessary to ensure that the correct professional grouping is allocated to each learning category.

2.4. WHAT is education and training for patient safety?

Professional competences - knowledge, skills and behaviours – are premised on the assumption that all healthcare roles are concerned with delivering safe services to patients and others who use healthcare services. Competences are best described via a set of descriptors encompassing the skills, knowledge and behaviours [attitudes] needed by those concerned with patient safety. These descriptors address the relevant direction, form and level of achievement, while defining those aspects of engagement that are needed in order to make a full contribution to the delivery and development of safe healthcare services.

Development of the competences within a recognisable framework enables everybody concerned with the delivery of patient care (including users and carers), and at all levels, to become more actively involved in the planning, delivery and transformation of health services. Competence statements can:

- inform the design of training and development curricula in order to deliver appropriate learning programmes;
- highlight individual strengths and development areas through self assessment and through 360 degree feedback;
- assist with personal development planning and career progression.

It is proposed that healthcare professionals should demonstrate ability in

i. Foundation knowledge, skills and behaviours for patient safety

ii. Assuring patient safety

iii. Adopting systems-based working

iv. Enabling a patient safety culture

v. Setting direction for quality and safe healthcare

The aforementioned 5 descriptors offer a map of the necessary knowledge, skills and behaviours ; these are then sub-divided to offer detail of each descriptor.;

In Table2, these are set out 5 overarching description of relevant knowledge, skills and behaviours and the main elements within each description.

Although every stakeholder will not be required to be competent in every element, it is arguable that every stakeholder should be competent in a proportion of the range.

Table 1 – WHO is involved in patient safety education and training?

Roles	**Those who sponsor**	**Those who design Curricula /teach**	**Those who provide core services**	**Those who provide support services**	**Patient / carer/user**
Audience examples	Those who implement; govern; evaluate; review patient safety – policy-makers; regulators; CEOs; Board level members; senior managers	Those who design learning interventions and those with a career level commitment to patient safety – experts; teachers; researchers;- Educationalists; Universities Trainers; Curriculum designers; NGO professionals; Professional bodies	Those directly involved in delivering patient care – doctors; nurses; midwives; Allied Health Professionals; pharmacists; public health professionals	Those indirectly involved in delivering patient care – managers; support staff; HR; estates professionals; logistics	Patient / user; Carer; Families
Outcomes examples	Broad knowledge of the policy context; the methodologies employed; and the organisational responsibility for the promotion of patient safety	Knowledge of the methodologies of good practice in quality & patient safety and of education and training in the workplace Recognised expertise in the implementation of quality & patient safety approaches	Can implement quality & patient safety approaches on a daily basis and can lead others in localised changes	Awareness of the approaches to quality & patient safety currently in operation and prepared to address issues that fall within the purview of support roles	Awareness of the significance of patient safety and their individual rights and responsibility as recipients for safety in healthcare
Pre-requisites examples	Professional qualifications; peer group recognition; experience of policy implementation	Qualifications in clinical field(s) and/or education; and / or experience of delivering	Foundation level knowledge of the context of patient safety; reading about the issues	Foundation level knowledge of the context of patient safety and broad understanding of the implications of patient safety	Awareness of the issues and debates that feature in patient safety

	at a high level	workplace learning – all at a high level; experience of teaching and/or research; publications	and practical experience of healthcare settings; awareness of the policy context;	issues	
Process examples	Short courses (c 1 day) – Masterclasses – reading lists – websites – (eg EUNetPaS); discussion forums - conferences	Post-graduate level modules– discussion forums; conferences – major project experience on work in patient safety promotion	Undergraduate and graduate level modules following DIR36 and Bologna – online courses ; CPD courses; lifelong learning	1 hour video + 1 hr facilitated discussion with groups of staff to share experience; regular opportunities to engage with peers in quality & safety discussions	Published materials such as leaflets; websites; video; campaigns (at EU or national level); courses
Indicative content	Comparative analysis (at EU and international level; trends in the EU ; Evaluation techniques – Root Cause Analysis; Cost Benefit Analysis	History & philosophy of policy and practice in quality & safety; tools & techniques of systems approaches and the human dimension of quality & safety; how people learn; promoting workplace transfer and reflection	Familiarity with a range of tools & techniques; appropriate selection; team and partnership working; organisational cultures (ie teamworking; risk assessment; reporting systems; evaluation techniques	Fundamentals of quality and safety for healthcare; roles and responsibilities – introductory techniques to promote team working	Roles and responsibilities including those of the recipient of healthcare; good practice in quality & safety; health protection and promotion
Provider examples	Range of providers including Universities; professional bodies; NGOs; government	Universities	Universities; non-university training bodies; professional bodies	In house via staff trained in safety techniques; online training	NGOs and patient support groups; government bodies; educational organisations; professional bodies

Table 2: Knowledge, Skills, and Behaviours for patient safety

Teaching Objectives	Learning Outcomes
Acquiring foundation knowledge, skills and behaviours for patient safety	Appreciates the systemic nature of risk
	Acquires knowledge in key areas of patient safety
	Acquires the foundations of patient safety culture and interpersonal skills
	Recognises the need for proactive planning to avoid error
Assuring patient safety	Engages in learning from errors and near misses
	Takes opportunities to collaborate and share experiences with others
	Promotes innovation about patient safety amongst colleagues
	Engages in individual personal development for continual improvement of patient safety via own learning and that of peers
Adopting systems based working	Takes a systems approach to problem solving
	Applies improvement principles
	Utilises tools and techniques of systems improvement
	Promotes a culture of change
Enabling patient safety culture	Takes a proactive approach to patient safety
	Applies lessons from errors and near misses
	Manages risk
	Recognises organisational and individual roles and responsibilities for patient safety
Setting direction for quality and safe healthcare	Identifies opportunities for change and improvement
	Takes an evidence-based approach to patient safety
	Works with internal and external stakeholders to manage and sustain patient safety
	Implements techniques to evaluate impact of patient safety approaches

2.5 HOW can education and training for patient safety be organised?

Initial education and training on patient safety normally offered as part of higher education programmes can provide sufficient competences to enter a healthcare profession. Higher Education can fill the gap in patient safety education by providing a comprehensive curriculum designed to build foundation knowledge and skills for emerging healthcare professionals that will be better prepared for clinical practice in a range of environments. Further education and training during supervised practice will provide the professional with these additional competences and experiences to practice independently. Education and training throughout the professional career will lead to Continuing Professional Development (CPD) and hence maintenance and improvement.

However the Guidelines presented here are designed to be of relevance to *all* stakeholders concerned with patient safety and therefore our scope is wider than that provided by formal learning interventions. The patient safety curriculum described here requires that all stakeholders work across the organisation in a collaborative way to:

- Reduce the theory / practice gap
- Embrace the requisite knowledge, skills and behaviours for patient safety
- Recognise appropriately the learning, both practical and theoretical, that emerges.

None of us work – or learn – in isolation; we are surrounded by others and we learn by talking and listening to our colleagues. Socially situated learning theories locate learning in the process of co-operation[9] , arguing that learning requires a social setting to occur, and to be applied. Indeed, many theorists maintain that learning is not just an outcome of social interaction but it is integral and inseparable from all of our activities during all of our waking hours.

2.6. A process for design and delivery of a patient safety curriculum

This section of the guidelines offers suggestions for a practical and structured process for the design, development, delivery, and evaluation of a learning intervention. The process is equally applicable whether the intervention is at foundation (undergraduate) level or whether it is at Masters (post-graduate) level, and whether it is designed and delivered in a university or in the workplace. Taking a systems based approach such as this will ensure that the appropriate intervention is matched to the needs of participants.

The process has five components: The analysis of need; Preparation; Delivery; Follow-through and Evaluation. In each section below there are points to be covered to ensure that optimal outcomes are assured.

1. Analyse Need

The first stage of the process is designed to ensure that all stakeholders involved in the patient safety learning intervention fully understand their responsibility towards making the activity a success.

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[9] *see Annex A, Evidence Base, Education and training in patient safety – learning theories and professional development*

By the completion of Stage 1 you will have in place:

- An appropriate participant group
- Baseline evidence of the knowledge, skills and behaviours of each participant at the start of the programme
- Agreed impact outcomes for each healthcare organisation
- Input data and measures (targets) to allow for comparison with outcomes

Step 1: Selection of Learners

The success of the learning experience depends heavily on the matching of participants and the healthcare organisations with an appropriate intervention, and time spent at this stage will repay dividends later. It is essential to allow sufficient time, and to give clear guidance on what is required of all stakeholders throughout the programme. Participants need to be prepared for the learning intervention, but also the healthcare organisation needs to be prepared to support and empower participants.

Step 2: Baseline evidence of learning

Gathering baseline evidence of the knowledge, skills and behaviours of each participant at the start of the programme has two distinct purposes. It ensures appropriate selection of participants and it provides baseline evidence of the organisation's capacity to support and implement improvements. This evidence will be used later for comparative purposes against outcomes of the programme to assess the impact of the learning on everyday practice at the workplace.

Step 3: Identification of appropriate outcomes

Agreed outcomes for the healthcare organisation with input data and measures (targets) to allow for comparison with outcomes is useful and should be collected at this stage. Clarity of alignment among healthcare managers and the providers of learning at each participating organisation is needed.

2. Prepare

Once selection of participants has been completed it is necessary to ensure that there is clarity amongst all stakeholders of their learning targets for the programme. Initial meetings should be held with participants and their line managers to ensure that all involved are adequately prepared for the learning intervention.

By the completion of Stage 2 you will have in place:

- Clear understanding of role and responsibilities on the part of all stakeholders at all healthcare organisations
- Individual development targets agreed via appraisals and development contracts between participants, line managers and providers
- A launch event to introduce and begin the formation stage of the learning group

Step 1: Marketing the intervention

Meetings should be organised to explain the purpose and intended outcomes of the intervention and to raise awareness of the implications of undertaking the programme of learning. Individual preparation should be thorough and should include initial selection of preparatory reading if required.

Step 2: Appraisal and Development Contract

At this stage it is essential to confirm baseline participant data to inform outcomes – where they are placed in terms of their knowledge, skills and behaviours and also regarding their career, experience and capability. This should take the form of a skills appraisal process. Each of these preparatory stages is designed to ensure that there is transparency of expectations on the part of all stakeholders concerned with the learning programme.

Step 3: Stakeholder consultation

Each line manager must ensure that personal and organisational targets are agreed (and measurable) with the learning programme provider. This is part of the preparation for the impact analysis that will provide evidence of success, both immediately at the close of the programme, and after some time has elapsed.

Step 4: Launch of the intervention

Once individual preparation has been completed, an Introduction and launch event could be organised, and all stakeholders from healthcare organisations involved can be invited, along with all members of the provider group.

3. Deliver

The third stage of the learning intervention process is to deliver the learning intervention to participants. The intervention should be made up of a combination of classroom based and workplace based learning, all designed to focus on relevant and transferable techniques for patient safety within the healthcare environment.

By the completion of Stage 3 you will have in place:

1. A tailored programme that focuses on patient safety within specific organisational settings
2. A process that enables direct transfer of understanding from the programme to the workplace, ensuring successful implementation
3. A system to monitor progress by all stakeholders in the programme

Step 1: Matching learner needs with content and process of the intervention

Review the evidence of capability of participants drawn from the appraisals process, and the organisational targets identified by senior managers. Ensure that provision – content and process - matches the needs of all participants of the programme. The precise form that the programme takes will have been a matter for negotiation between managers at the healthcare organisation and the provider of the learning intervention. It is necessary to assess continually the progress of participants on the programme.

Step 2: Senior manager role and responsibility

An important element of the programme is the active involvement of senior and middle managers at the organisation to support and mentor participants. Provision should be made to monitor their involvement in the implementation of the programme. They are pivotal in ensuring that challenges and blockages are met and dealt with, and that participants' feel supported during their learning and application of patient safety initiatives.

Step 3: Maintaining relevance via flexibility of content and process

All members of the delivery team should make every effort to ensure that learning interventions continue to match the needs of the individuals (as their experience broadens) and the organisation (as the organisation expands/ diversifies / shrinks).

Step 4: Providing learner feedback

Provision should be made to monitor the progress of the adoption of new approaches to patient safety that can be attributed to the learning that is taking place. This can be done during workshop sessions, by programming a feedback session as a regular component of the day, allowing all present to listen and comment on the progress of each member of the group.

4. Follow-through

The fourth stage of the learning intervention process is designed to ensure effective transfer of understanding from the programme to the workplace; and the adoption of new ways of thinking and working as a result of the intervention.

By the completion of stage 4 you will have in place:

- An ongoing learning intervention that is monitored regularly against agreed criteria
- Active support in the workplace to enable learning to be transferred and applied
- Data to assess the impact of the learning intervention on patient safety targets

Step 1: Enabling shared learning

Ensure that opportunities to share and try out ideas gained from learning are made apparent to learners within local and organisational settings. This can be achieved by programming time during workshops for sharing and feedback about progress on the programme. The experience of other participants can be very relevant as an aid to learning and progress when things are not going to plan.

Step 2: Transfer of learning to the workplace

Support may be needed within the organisation to ensure that transfer of learning to the workplace is enabled and this requires the active involvement of line managers. This may happen serendipitously but the likelihood is that a formal process and monitoring mechanisms will be needed. Support roles will need to be identified, prepared and in place (line manager, and e.g. mentor, coach, trainer) to ensure that participants have all the support that they may require. Attention to this aspect of the programme will pay dividends in ensuring successful outcomes.

Step 3: Encouraging sustainability and spread of learning

Participants should be encouraged to identify value-adding opportunities, and should be supported in pursuing them. Taking a proactive approach to identifying other issues / problems that could form the basis of future patient safety projects is to be encouraged amongst programme participants. Line managers and colleagues can enable this to happen, so that participants routinely reflect on their learning, and personally pursue further development.

Step 4: Monitoring of progress to inform impact analysis

The impact analysis will become of increasing relevance as the programme progresses. Progress towards the achievement of agreed targets should be monitored regularly and data retained to inform the outcomes of the programme and to learn lessons for future activities.

5. Evaluate

The final stage of the process is to undertake an appropriate evaluation of the outcomes of the learning programme to ensure that it has met the initial intentions as agreed during the Analysis phase of the programme.

By the completion of stage 5 you will have in place:

- Evaluation evidence to assess changed behaviour of participants of the learning intervention
- Data to inform an impact analysis to assess the extent to which organisational targets for patient safety have been met
- Information to feed back to the learning provider to inform future learning programmes

Step 1: The learner view of learning achieved

At this stage it is necessary to ask participants about their perceptions regarding the resulting increase in knowledge and skills concerning patient safety and whether they believe that there has been any change. Any behaviour changes should be apparent to line managers and it is important that their views are also sought. Changes in the way that patient safety approaches are implemented and /or applied should be monitored.

Step 2: Measuring the impact of the intervention

Impact results should be measured and this can be wide ranging, but should include the effects on the organisation resulting from the participant's performance**.** Protocols should be in place to support and measure the sustainability of changed performance and outcomes. For example differences in achievement of targets in patient safety concerns such as infection control can be a proxy for measuring the impact of a learning intervention.

Step 3: Feedback loops to inform future practice

Feedback loops to the provider and to senior managers at the healthcare organisation can inform future programmes and activities concerned with patient safety. Data collected throughout the programme, both at individual and at organisational levels, can assist in providing evidence for feedback to the learning provider.

Step 4: Monitoring the degree of sustainability of the learning

Sustained change in behaviour as a result of the learning intervention is an important outcome and an ongoing evaluation to monitor sustainability of performance should be undertaken after an interval of 3 – 6 months.

2.7 Criteria to guide the commissioning of learning interventions

The following criteria should be borne in mind when commissioning a learning intervention in line with the principles for patient safety outlined earlier:

- Learning preferences of learners should be taken into account when reviewing what is on offer
- Learning preferences of participants / group should be recognised and taken into account
- Content designed to be delivered in a range of formats to take into account varying needs of individuals and teams /units in the organisation
- A wide variety of learning intervention possibilities should be considered taking into account timeliness and availability
- Whether the delivery model chosen allows for learning to be recognised (award or reward) and whether this would be valued by participants should be reviewed
- The relevance of learning content and its capacity to be implemented back at work needs to be considered
- An appropriate level of support to enable learning to be completed should be considered
- The timing of delivery should match the needs and work/life balance of the individual learners
- Learning sessions should give time to allow the previous experience of participants to inform discussion and outcomes
- The process of learning employed should be designed to enable immediate transfer of learning from the learning environment to the workplace
- Content should be designed to narrow the theory / practice gap and enable relevance and application to be at the fore
- The cost / benefit of delivery model(s) chosen should be transparent
- The curriculum should ideally build on the internal experience and expertise of members of staff to allow for effective coaching /mentoring in the workplace
- Emphasis should be placed on learning from past experiences within the organisation
- Delivery model selected needs to be adaptable to take into account future scale – either greater or smaller – as the organisation alters scope and focus

3. KNOWLEDGE SHARING: A FRAMEWORK FOR SELF ASSESSMENT OF LEARNING INTERVENTIONS

This collaborative effort is based on the premise that materials produced transparently and according to mutually accepted criteria, may become common resources of a structured network such as EUNetPaS and as such they may be used and exploited by other members. In this way, European collaboration on Patient Safety will add value to national work by exploiting the Network's consolidated knowledge and - where feasible – add to the consolidated resources by pooling and profiting from national initiatives, knowledge and resources.

Nevertheless, sharing information and knowledge requires amongst other things an appreciation of the value of the knowledge and educational resources that are offered for sharing. Confidence in this shared information can be increased across national contexts by, in addition, building in a process of reflexivity to ensure that maximum benefit is achieved by the transfer. Localised, self-assessment, can be achieved as follows:

1. A learning intervention, to be shared, should be accompanied by a Self Assessment (Value) Statement.
2. This statement should provide structured information as to the degree to which these interventions meet the broad criteria described in section2. 6.
3. This statement should draw information from the internal /external evaluation of the learning intervention which is expected to be an integral part of the planning and implementation of the intervention in the national environment and, where relevant, the international environment.
4. This Self Assessment Statement should be structured, and its content should be specified, to guarantee a uniform interpretation amongst the members of the Network that are are involved in sharing this knowledge and resources. As such it should be agreed and accepted at this level.
5. Similarly, it is not the intention to validate such learning activities but rather to validate the concept that such activities can in fact be produced in close collaboration between healthcare organisations and teaching institutions, according to mutually accepted EUNetPaS guidance.

4. CHALLENGES AND FUTURE DIRECTIONS FOR CO-OPERATION ON PATIENT SAFETY EDUCATION AND TRAINING

These guidelines are a snapshot of what is considered current good practice. Practice is continually evolving in the course of absorbing and assimilating innovative ideas and methods, new knowledge and new technologies. Cultures also evolve and so does Patient Safety culture in Europe and in each of its members states.

How can an EU general guide of education and training on patient for patient safety stay current in such a dynamic landscape?

As a first step, the concept that *knowledge produced in one setting transparently and according to mutually accepted criteria may become resource of the Network and as such may be used and exploited by the whole Network membership* will need to be validated over a considerable length of time. Therefore we view this document as part of a dynamic process of evolution, and recommend that its content be evaluated and updated regularly, as experience form its application emerges and is analysed.

At the same time, it is important that we move from paper to action, by engaging into support activities offered and received on a voluntary basis that will facilitate the application of these guidelines in practice. Such activities may be peer review of national strategies for patient safety education and training; staff exchanges; on site visits and peer reviews of national processes for PS education and training and support of delivery of courses by e.g. exchange of teaching staff. This would require that our current EU collaboration approach will evolve in a similar direction.

ANNEX A Evidence Base

Adverse events in healthcare – how big is the problem?

Key words: harm; systems failures; blame; patient-centredness;

In 1991 the Harvard Medical Practice study[10] was published. It was an early investigation into the number of adverse events in healthcare showing that 3.7 % of hospitalised patients in New York had experienced an adverse event and 13.6% of these had died as a consequence. In 1995 another study in Australia[11] showed that 16.6 % of patients in Australian hospitals had experienced an adverse event. Since then a number of industrialised countries have carried out their own investigations about the size of the problem (e.g UK 2001[12]; Denmark 2001[13]; Canada 2004[14], Spain[15]). Depending on the method used most of these investigations have shown that about 10% of patients are harmed while they are hospitalised. The majority of surveys have been conducted in the acute sector and there is little knowledge about the size of the problem in primary care; however the APEAS study[15] (Spanish prevalence study of adverse events in primary care settings) performed in 2008 involving 96,047 patients from 45 health centres around Spain, showed a prevalence of adverse events of 11.18‰ (IC95%: 10.52-11.85). Of these, 54.7% (n=606) were categorised as slight adverse events; 38% of them (n=421) were classed as moderate and 7.3% of them (n = 81) were classed as severe.

Systems thinking - learning from errors

Key words: complexity; systems; human factors; reliability

In 1999 the Institute of Medicine in the USA published an important report named *"To err is human: building a safer health system".* [16] This report put patient safety on the agenda in the USA by looking at the American data for adverse events and by focusing on taking a system based approach. A year after this, James Reason introduced his "Swiss cheese model" [17]as a way to understand why adverse events take place. Since then a vast number of national reports, books and articles about patient safety has been published (e.g Dept of Health UK

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10 Brennan TA, Leape LL, Laird NM et al ***(1991) Incidence of adverse events and negligence in hospitalised patients. Results of the Harvard Medical Practice Study I*** *New England Journal of Medicine 324 (6):370-6.*

[11] *Wilson RM, Runciman WB, Gibberd RW, Harrison BT, Newby L, Hamilton JD* ***(1995) The Quality in Australian Health Care Study.****. Medical Journal of Australia 163:458-71.*

12 Vincent C, Neale G, Woloshynowych M. (2001) Adverse events in British hospitals: preliminary retrospective record review. British Medical Journal 322:517-9

13 Schiøler T, Lipzak H, Pedersen BL et al. Ugeskr Læger (2001) Forekomsten af utilsigtede hændelser på sygehuse. En retrospektiv gennemgang af journaler.); 163 (39): 5370-8. (in Danish with English summary)

14 Ross Baker G, Norton PG, Flintoft V et al. (2004) AThe Canadian Adverse Events Study: the incidence of adverse events among hospital patients in Canada. Journal American Medical Care 170(11):1678-86

[15] *Jesus Ma Aranaz-Andrés, C. Aibar-Remón, J. Vitaller-Burillo, J. Requena-Puche, E. Terol-García, E. Kelley, M.T. Gea-Velazquez de Castro, and the ENEAS work group (2009) Impact and preventability of adverse events in Spanish public hospitals: results of the Spanish National Study of Adverse Events (ENEAS).International Journal for Quality in Health Care 2009 21(6):408-414;*

16 Kohn L, Corrigan J, Donaldson M, eds. (1999) To err is human: building a safer health system.

[17] *Reason J. (2000);Human error: Models and management. British Medical Journal 320:768-70.*

2000[18]; Cohen 2000[19]; AHRQ 2001[20]). They focus on how to avoid mistakes and adverse events by focusing on improving the systems that underpin practice. Consideration of the systems failures that may result in patient harm also recognises that there are human factors involved. The relationship being the system and the human operating it, and the manner in which they interact is a significant element of the patient safety domain. Methods to be used in monitoring patient safety include root cause analysis, PDSA; continual improvement; cause and effect models; ergonomics etc.

Patient Safety Culture

Key words: teamwork; values; roles and responsibilities; leadership; communication

Speaking openly about medical errors and adverse events in healthcare as well as reacting to them requires a new approach. A patient safety culture needs to be established where it is possible to speak about adverse events from a system perspective without any individual blame being ascribed. Some recommendations have been made about how to react towards patients as well as health personnel when they have been involved in an adverse event (Banja, Jones & Bartlett 2005[21]; Harvard Hospitals 2006[22])

The European Society for Quality in Health Care defines safety culture as *'An integrated pattern of individual and organisational behaviour, based upon shared beliefs and values that continuously seeks to minimise patient harm, which may result from the processes of care delivery.'* This definition has been adopted by the EUNetPaS Project group. The imperative for creating a culture of safety is considered so important that a specific sub-group tasked with raising awareness about the cultural imperatives of patient safety forms part of EUNetPaS.

Reporting systems

Key words: error; near miss; hindsight bias; clinical risk; risk assessment; monitoring

To measure errors and adverse events in health care different kinds of reporting systems have been set up either at the hospital level, at a regional level or at the national level (Weissman, Annas, Epstein. (2005)[23]). Only a few countries have established national reporting systems, among them the UK and Denmark. Over the years much experience has been gained concerning the effectiveness of reporting systems; for example it has been recognised that merely counting the number of adverse events does not automatically lead

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18 Department of Health (2000). An Organisation with a Memory: Report of an Expert Group on Learning from Adverse Events in the NHS Chaired by the Chief Medical Officer. Donaldson L. London, England: The Stationery Office;

19 Cohen MR (ed.) (2000). Medication Errors. Causes, Prevention, and Risk Management. Jones and Bartlett Publishers

20 AHRQ (2001). Making Health Care Safer: A Critical Analysis of Patient Safety Practices. Evidence Report 43. Publication No. 01-E057

21 Banja J D (2005) Medical Errors and Medical Narcissism. Jones and Bartlett Publishers

22 Harvard Hospitals Marts When Things go wrong. Responding to adverse events. A Consensus Statement of the Harvard Hospitals Marts (2006).

23 Weissman JS, Annas CL, Epstein AM, et al. (2005) Error reporting and disclosure systems: views from hospital leaders. Journal of American Medical Association. 293:1359-1366.

to better patient safety (Pronovost et al 2006[24]). It has been demonstrated that effectiveness depends on having competent people and an organisation that can act on the lessons from adverse events to improve patient safety.

Policy Papers and recommendations on Patient Safety

Key words: collaboration; priorities; patient mobility; patient rights; networking

Similar types of healthcare intervention-related adverse events happen in all healthcare systems, despite differences in the way these systems are organised or financed. It is therefore largely a problem that we can tackle better and more effectively together. As such, it has emerged as a top priority area for international collaboration as reflected in the escalation of international activity on patient safety policy and policy support initiatives over the last 5 years.

At EU level, patient safety was one of the priority areas addressed by the High Level Group on Health Services and Medical Care and was explored in depth within its Patient Safety Working Group. The group worked closely with the Commission services for the preparation of the Council Recommendation on Patient Safety and the prevention and control of healthcare associated infections[25] which was adopted on June 9th 2009 by the EPSCO Council. These two recommendations have provided the impetus for the EUNetPas European Network on Patient Safety.

Seen in the light of patient mobility and the renewed social agenda, such collaboration on patient safety is also necessary for the exercise of patient rights to cross-border healthcare. The draft Directive on the application of patients' rights[26] adopted by the European Commission in July 2008, provides a Community framework for safe, high quality and efficient cross-border healthcare and foresees a duty of cooperation for member states to help realize it.

At international level, the World Health Organisation (WHO) launched in 2004 the World Alliance for Patient Safety which aims to coordinate, disseminate and accelerate improvements in patient quality and safety worldwide and brings together WHO, Member States, technical experts, and patients' representatives, as well as health professionals and industry groups. Each year, the Alliance delivers a number of programmes covering systemic and technical aspects to improve the quality of patient safety around the world. The World Health Organisation has also published some guidelines and recommendations about how safer practices are developed and implemented in healthcare (WHO 2005; WHO Europe 2008).

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[24] *Pronovost PJ, Thompson DA, Holzmueller CG, et al. (2006)Toward learning from patient safety reporting systems. Journal of Critical Care. 21:305-315.*

25 Council Recommendation on Patient Safety, including the prevention and control of healthcare associated infection, COM (2008)837 final/2

26 Draft Directive on the application of patients' rights in to cross-border healthcare (COM 2008/414 final) http://ec.europa.eu/health/ph_overview/co_operation/healthcare/cross-border_healthcare_en.htm

Education and training in patient safety – challenges, learning theories and professional development

Key words: curriculum; performance; informal learning; multi-disciplinary teams; mental models

Over the past century we have witnessed major scientific and technological advancements which have resulted in significant progress in practically all areas of medical diagnosis and treatment At the same time however such advances have introduced an increased complexity which has changed radically the way care is provided. Making the shift to collaborative, multidisciplinary and multifunctional care teams has been the response for dealing with the accelerated production of knowledge and over-specialisation.

On the other hand, the globalization of healthcare delivery has required educators to recognize the challenges of preparing medical and nursing students who are able to work in their country or in other healthcare systems. The mobility of health professionals – both students and teachers - in Europe and globally - has produced many opportunities for enhancing education with consolidation of best practices in what concerns curriculum development, instructional methods and assessment, and localisation to local academic and clinical environments.

ANNEX B: Glossary

For consistency with EC policy papers, many of the terms in this glossary are taken from the EC Recommendation on Patient Safety and where these do not exist in this source they are taken from the WHO *Patient Safety Curriculum Guide for Medical Schools* (2009). We acknowledge the value of this.

Adverse event

Harm implies impairment of structure or function of the body and/or any deleterious effect which arises from that [Council Recommendation on PS]

Adverse reaction

Unexpected harm resulting from a justified action where the correct process was followed for the context in which the event occurred

Disability

Any type of impairment of body structure or function, activity limitation and/or restriction of participation in society, associated with past or present harm

Error

Failure to carry out a planned action as intended or application of an incorrect plan

Event

Something that happens to or involves a patient

Harm

Impairment of structure of function of the body and/or any deleterious effect arising therefrom

Hazard

A circumstance, agent or action that can lead to or increase risk

Health

A state of complete physical, mental and social well-being and not merely the absence of disease or infirmity

Healthcare

Services received by individuals or communities to promote, maintain, monitor or restore health

Healthcare associated harm

Harm arising or associated with plans or actions taken during the provision of healthcare rather than an underlying disease or injury

Health professional

A professional whose job involves providing healthcare services and who is registered with the appropriate Member State competent authority [Council Recommendation on PS].

Healthcare institution

An institution where healthcare workers provide secondary or tertiary care[Council Recommendation on PS] .

Healthcare worker

All staff involved in the direct delivery of healthcare [Council Recommendation on PS].

Incident characteristics

Selected attributes of an incident

Incident type

A descriptive term for a category made up of incidents of a common nature grouped because of shared, agreed features

Injury

Damage to tissues caused by an agent or circumstance

Mitigating factor

An action or circumstance that prevents or moderates the progression of an incident towards harming a patient

Near miss

An incident that did not cause harm

Patient

A person who is a recipient of healthcare

Patient- centred healthcare

A system that is designed and delivered to address directly the healthcare needs and preferences of patients, in a cost effective manner. To achieve patient-centred healthcare, the focus must be on the following five principles: respect; choice; empowerment; patient involvement in health policy; access and support; information (source IAPO)

Patient characteristics

Selected attributes of a patient

Patient safety

Freedom, for a patient, from unnecessary harm or potential harm associated with healthcare

Patient safety incident

An event or circumstance which could have resulted in, or did result in, unnecessary harm to a patient

Preventable

Accepted by the community as avoidable in the particular set of circumstances

Programme

A broad framework of goals to be achieved, serving as a basis to define and plan specific projects [Council Recommendation on PS].

Risk

The probability that an incident will occur

Safety

Freedom from Hazard

Side-effect

A known effect, other than that primarily related to the pharmacological properties of a medication

Suffering

The experience of anything subjectively unpleasant

Violation

Deliberate deviation from an operating procedure, standard or rules

Terms associated with education & training

Education

A systematic course of instruction designed to provide intellectual or moral support, knowledge and understanding.

Training

Assistance to support the development and/or enhancement of skills to a desired standard of efficiency.

Continual Professional Development (CPD)

A process of ongoing learning for all individuals and teams which enables professionals to expand and fulfill their potential and which also meets the needs of patients and delivers the health and health care priorities of the national health system.

Teamwork[27]

A dynamic process involving two or more healthcare professionals with complementary backgrounds and skills sharing common health goals and exercising concerted physical and mental effort in assessing, planning or evaluating patient care

Competences

"Competences" describes a set of descriptors encompassing the skills, knowledge and behaviours [attitudes] needed by those concerned with patient safety.

Learning organisation

An organisation which places a high priority on enabling individual learning, in matters which will directly benefit the organisation. Learning and sharing of new knowledge is typically encouraged among all employees, on the assumption that active participation will result in the development of a more responsive workforce.

Learning context

The interplay of all the values, beliefs, relationships, frameworks and external structures that operate within a given learning environment.

Formal learning

Generally has a prescribed learning framework within a period of time, and is conducted in the presence or under the direction of a designated trainer or teacher. Formal learning involves the external specification of outcomes and may lead to the award of a qualification or credit.

Informal learning

Is continuous, incidental, lifelong, personal and based on experience, and is not bounded by formal parameters.

Occupational knowledge

Practical knowledge and understanding mostly gained through experience within a job or occupation

[27] *Xyrichis Rearn (2008) Teamwork: a Concept Analysis JAN 61(2): 232-241*

Reflection

Thinking about past experiences in a structured way such that future actions are informed and enabled.

Workplace learning

Workplace learning happens as an integral component of working. This is the kind of learning that occurs as we think about what we are doing, and how we might do it better. It has been called “reflection-in-action” and it is also classified as “informal” learning - see above.

For work

Learning outside the workplace intended as preparatory or complementary to the work role. Typically conducted at the beginning of a career, it also spans learning activities throughout the working life, eg through contact with professional bodies, interest groups and external boards and committees of all kinds.

At work

Learning opportunities offered by an employer or as a consequence of employment, which require work to be set aside in favour of activities that stimulate or simulate (but do not replicate) work tasks.

Through work

Learning that occurs through direct work experience, individually or within teams or other collective groupings