

# SimPatie - Work Package 4

## Vocabulary - Indicators

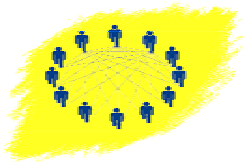
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# SimPatIE WP4

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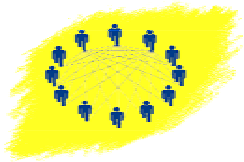
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# Vocabulary of Patient Safety



'When I use a word,' Humpty Dumpty said, in rather a scornful tone, 'it means just what I choose it to mean - neither more nor less.'

'The question is,' said Alice, 'whether you can make words mean so many different things.'

'The question is,' said Humpty Dumpty, 'which is to be master - that's all.'

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# Objectives on common European Patient Safety Indicators

A set of definitions of patient safety terms is available for use of professionals, e.g. risk managers, administrators, project managers and others working with patient safety. The vocabulary is aiming to:

- Define basic terms and concepts related to patient safety
- Ease communication and understanding across Europe
- Take cross cultural European aspects into account

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# Used background sources and literature

Information of the following organisation was reviewed:

- ~ Australian Commission for Safety and Quality in Health Care (ACSQHC)
- ~ Agency for Healthcare Research and Quality (AHRQ)
- ~ Act on Patient safety in the Danish Health Care System (APSDHCS)
- ~ Council of Europe (COE)
- ~ Institute of Medicine (IOM)
- ~ Information Security Group (ISG)
- ~ International Organization for Standardization (ISO)
- ~ Dutch Consensus Group with participants of (semi)government and different professional groups (JPSG)
- ~ Joint Commission on accreditation in Health Care (JCAHO)
- ~ Joint Commission International (JCI)
- ~ National Patient Safety Agency (NPSA)
- ~ The Danish Society for Patient Safety (DSPS)
- ~ The Quality Interagency Coordination Task Force (QuIC)
- ~ Socialstyrelsens Författningssamling, Sweden (SF)
- ~ The National Board of Health, Denmark (SST)
- ~ Veterans Affairs (VA)
- ~ World Health Organization (WHO)

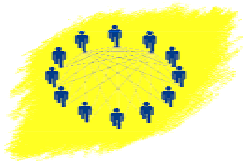
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# Approach Taken

- Identification by frequency
- Selection by Expert Consensus
- Selection by ambiguity of definition
- Categorising the Terms
  
- Identification of Core terms
  
- Final Definitions

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# Vocabulary on Patient Safety Terms (cont.)

DETECTION OF RISKS		ANALYSIS OF RISKS		RESULTING ACTIONS	
No	Term	No	Term	No	Term
1.	Patient safety	11.	Harm	17.	Risk management
2.	Adverse event	12.	Adverse outcome	18.	Error management
3.	Actual event	13.	Risk	19.	Action Plan
4.	Near miss	14.	Calculated risk	20.	Culture of safety
5.	Complication	15.	Barrier	21.	Human factor
6.	Sentinel event	16.	<b>Situational Awareness</b>		
7.	Critical incident				
8.	Complaint				
9.	Reporting system				
10.	Professional standard				

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# Vocabulary on Patient Safety Terms (cont.)

FAILURE MODE	
No	Term
22.	Negligence
23.	Situational factor
24	Error

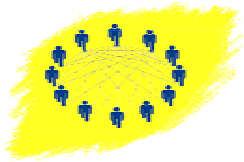
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# Definitions of the 24 terms of the vocabulary

1	<b>Patient safety</b>	The continuous identification, analysis and management of patient-related risks and incidents in order to make patient care safer and minimising harm to patients. Safety emerges from interaction of the components of the system. Improving safety depends on learning how safety emerges form such interactions.
2	<b>Adverse event</b>	An unintended and undesired occurrence in the healthcare process because of the performance or lack of it of a healthcare provider and/or the healthcare system. In this vocabulary adverse events are considered as preventable (Please see Diagram 1) although realising, that the clinical distinction between preventable and non preventable events is rather academic.

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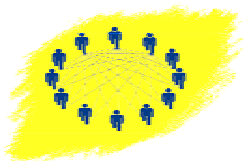
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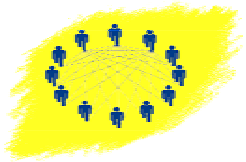
# Diagram 1: Overview of relations of the core terms of the vocabulary



Process	Actual event*		Near miss* (sub-event)		
	Non preventable event	Preventable event (Adverse event*)			
Outcome	Harm: Adverse outcome*		No Harm*		
Examples of events as illuminated in the analysis					
	<p>Example 1. A patient does not report any intolerance of penicillin. The penicillin is given and the patient develops an anaphylactic shock. In the analysis the reaction was found to be related to the disease of the patient.</p>	<p>Example 2. A patient reports <i>not</i> to be able to tolerate penicillin. The patient receives the penicillin, and develops an anaphylactic shock.</p>	<p>Example 3. A patient reports <i>not</i> to be able to tolerate penicillin. The patient receives the penicillin. The patient does not develop any allergic reaction worth mentioning.</p>	<p>Example 4. A patient does not report any intolerance of penicillin. Before the penicillin is injected a relative, who just arrived points out, that the patient does not tolerate penicillin. The event is prevented.</p>	<p>Example 5. A patient reports <i>not</i> to be able to tolerate penicillin, and it is documented in the electronic patient file. As the doctor is about to prescribe penicillin in the electronic patient file, a pop-up alert warns about the allergy. The prescription is altered accordingly.</p>

\* Terms in bold are defined in the vocabulary

Example 6.  
A patient is not clear in reporting tolerance to penicillin. The doctor calculates the risk according to the available information. Some patients in this situation will get the penicillin. Some of these patients might react to the penicillin while others will tolerate it.



# Development of a set of Patient Safety Indicators – Outcome Measures

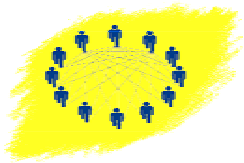
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# Objectives of PSI

- **Surveillance and monitoring of the impact of patient safety activities – e.g. monitoring effects of interventions by reduced harm.**
- ~ - Diagnose "unsafe" systems or organisations
- ~ - **Monitor consequences for patient safety of changes in processes and/or structures**
- For External (system level) and Internal (organisation level) use

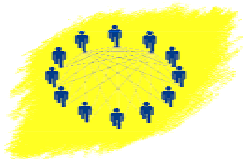
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# Methods

- Extensive documentation of existing indicators
- Development of a framework specifically targeted to identify, characterize and evaluate PSI
- Recommendation on a state of the art set of PSI (Formalized expert consensus)

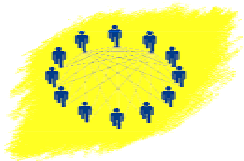
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# Review of existing indicators

Indicators or indicator programmes of the organisations mentioned below were reviewed to determine whether they were found suitable for characterisation and evaluation according to the Indicator framework

- ~ - Australian Council for Safety and Quality in Health Care (ACSQHC)
- ~ - Agency for Healthcare Research and Quality (AHRQ)
- ~ - The Good Medical Department, Denmark (DGMA)
- ~ - International Compendium of Health Indicators (WHO, OECD, Eurostat and ECHI)
- ~ - Institute of Healthcare Improvements (IHI)
- ~ - Joint Commission on accreditation in Health Care (JCAHO)
- ~ - Nordic Indicators (NI)
- ~ - Performance Assessment Tool for Quality improvement in Hospitals (PATH)
- ~ - The Danish National Indicator Project (NIP)
- ~ - Performance Indicators on Patient Safety and effectiveness for Dutch Hospitals

The literature search identifying the following methods/themes suitable for basing indicators upon:

- ~ - Standardised Mortality Rates
- ~ - Low Mortality DRGs
- ~ - Hospital Acquired-Infection Registration

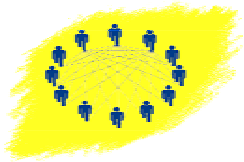
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# Framework for Stepwise Selection and Assessment of Patient Safety Indicators

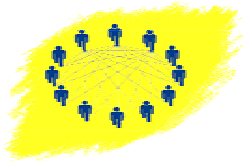
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# (1.) Selection

## Does the Indicator address Patient Safety Issues

**Patient safety indicators are measures that directly or indirectly monitor preventable adverse events**

<b>Processes</b>	Actual event		Near miss (sub-event)
	Non preventable event	Preventable event (Adverse event)	
<b>Outcome</b>	Harm: Adverse	outcome	No Harm

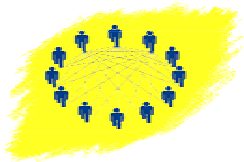
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## (2) Characterization

### 20 Dimensions

- Technical Dimensions
- Evidence for Clinical Use/ Validation
- Category in terms of Patient Safety areas : Organisation  
Situation  
Patient group
- Assess Risk Reduction/ Harm

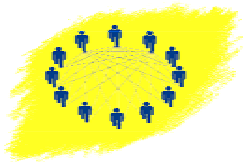
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# Development of PSI (cont.)

## Situations:

- Nosocomial infections
- Surgical Adverse Events
- Medication errors

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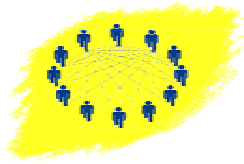
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# (3) Evaluation of Indicators

## Expert Consensus



INDICATOR SCORING MATRIX		
Dimension	Definition	Score
<b>Relevance and appropriateness</b>	Does the indicator cover areas of significance (severity and frequency) in terms of patient safety within its specified domain (population and/or organization)?	1-3 Low degree of relevance 4-6 Medium degree of relevance 7-9 High degree of relevance
<b>Validity and reliability</b>	Is the indicator satisfactory in terms of: <ul style="list-style-type: none"> <li>- construct validity (evidence based)</li> <li>- Internal consistency</li> <li>- Exhaustiveness/exclusiveness</li> <li>- Reliability</li> </ul>	1-3 Low degree of validity 4-6 Medium degree of validity 7-9 High degree of validity
<b>Feasibility</b>	Availability of data – the burden of data collection	1-3 Low degree of feasibility 4-6 Medium degree of feasibility 7-9 High degree of feasibility

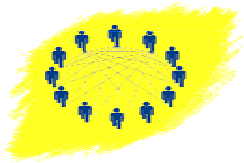
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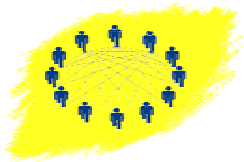
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## Development of PSI (cont.)

### Indicators reflecting harm reduction: ("Outcome Indicators")

- Risk adjusted hospital mortality rates (Brian Jarman)
- Rate of adverse events (Trigger Tool , Medical Record abstraction)
- Nosocomial infection rates



# Development of PSI (cont.)

## Indicators reflecting harm reduction: ("Outcome Indicators")

- Probability indicators : DK-infection control
- Probability indicators : 'electronic' trigger tool

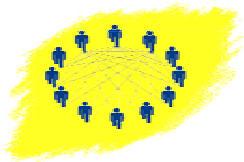
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# Development of PSI (cont.)

## Indicators reflecting risk reduction: ("Structure and Process Indicators")

- Assessment of safety culture
- Consumption of alcohol – for hand washing
- Proportion of schizophrenic patients assessed for suicidal risks

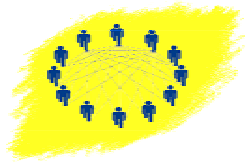
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# Finally - Recommendation

- Immediately workable
- Workable in parts of European Healthcare
- Recommende for Future Implementation

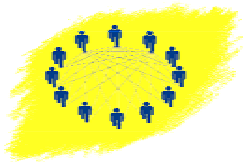
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# Where are we now

- Vocabulary available
- Selection/Characterization Framework for PSI Available (Pilot tested with 4 indicators)
- Indicators Selected for evaluation

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