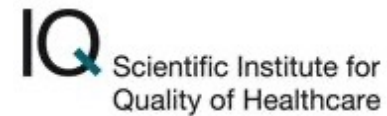

Developing the University of Tartu to a well-networked **PATient SAFETY** research center in Estonia (**PATSAFE**)



The PATSAFE project: Research and educational perspectives

Dr. Carola Orrego, Anne van Tuijl, MSc

Introductions

- **MENTIMETER LINK**

- During this presentation we invite you several times for interaction through Mentimeter.
- Please go to www.menti.com and use the code 46903151.
- To start with: a 1st question about the participants characteristics in this session:
 - In which position do you (mainly) work?
 - Answering options are academic staff, early-stage researcher, clinician, nurse, policy officer or other

Background

- Patient safety represents a global public health problem which affects countries at all levels of development
- Nonetheless, there is a scarcity of research evidence on how to tackle this global health priority.
- According to the WHO, more knowledge is essential for understanding the extent and causes of patient harm, and for developing solutions that can be used in different contexts.
- A key strategy is developing competencies to promote research including not only the magnitude of the problem but also how translate the evidence into the clinical practice

Background, continued

- In this context and based on the previous experiences and published knowledge, we developed the PATSAFE training program
- The program was developed based on training needs analysis and addressed to academic staff, early stage researchers, clinicians and managers interested in patient safety
- Combination between patient safety topics and research skills

Objectives

- Aim of PATSAFE

Improve and strengthen research excellence of the ICM-UT in the field of patient safety research among the early-stage researchers (ESRs) and staff with a special focus on the improvement of knowledge and skills in methods, techniques and experience for patient safety research.

- Aim of this presentation

To describe the education and research activities developed in PATSAFE and sharing main outputs, lessons learnt and further opportunities for sustainability.

The PATSAFE training program

MODULE 1

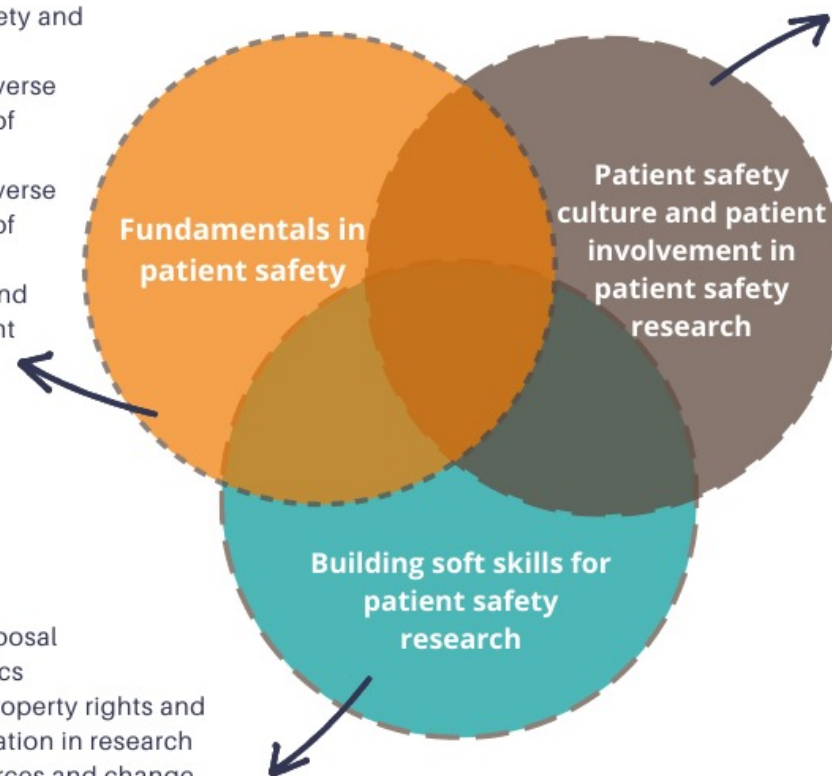
1. The science of patient safety and burden of unsafe care
2. Methods of analysis of adverse events and improvement of patient safety (I)
3. Methods of analysis of adverse events and improvement of patient safety (II)
4. Implementation science and patient safety improvement

MODULE 3

1. Research proposal
2. Research ethics
3. Intellectual property rights and commercialization in research
4. Human resources and change management in clinical settings
5. An introduction to qualitative research

MODULE 2

1. Patient safety culture
2. Patient involvement in patient safety and patient safety research
3. Validation techniques of measurement tools to study patient safety culture in healthcare settings in Estonia
4. Literature review techniques directed at identifying interventions to improve patient safety culture

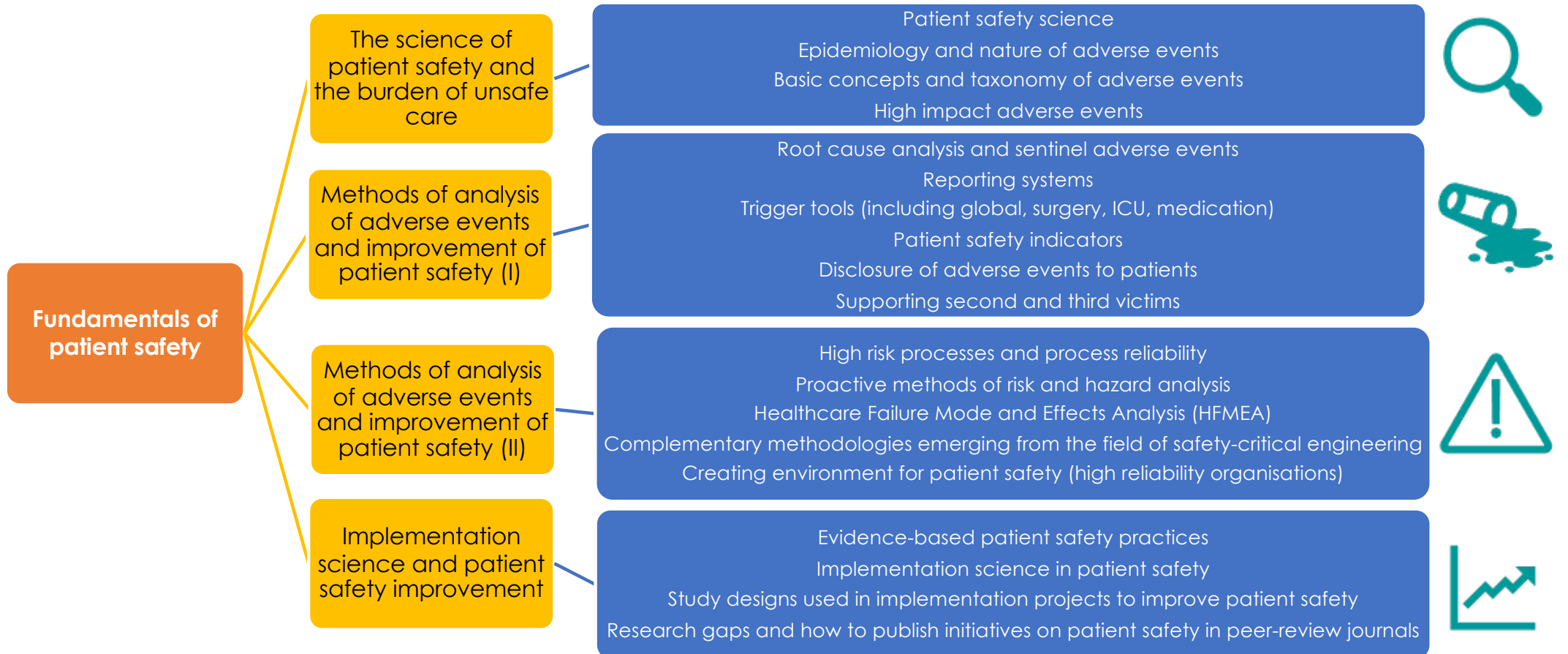


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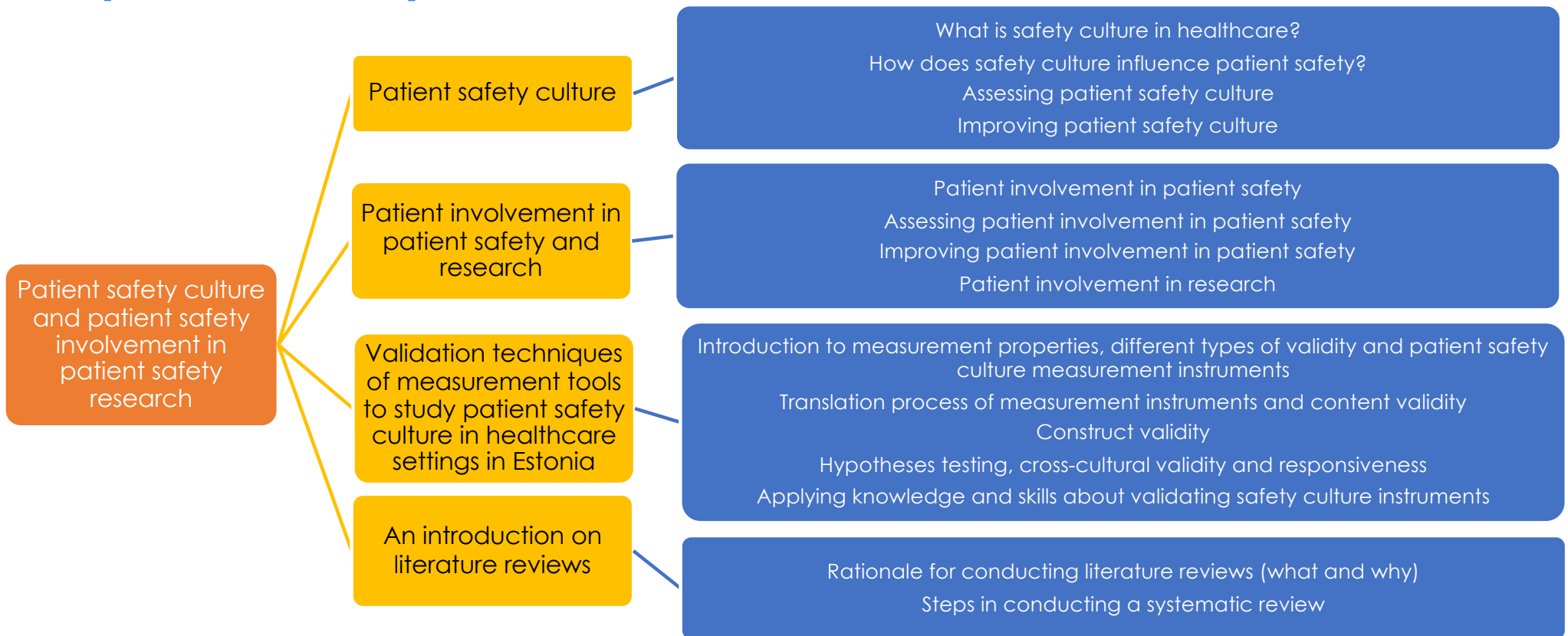
www.menti.com; code 46903151
and answer this question:

Which area do you think you need more training in?

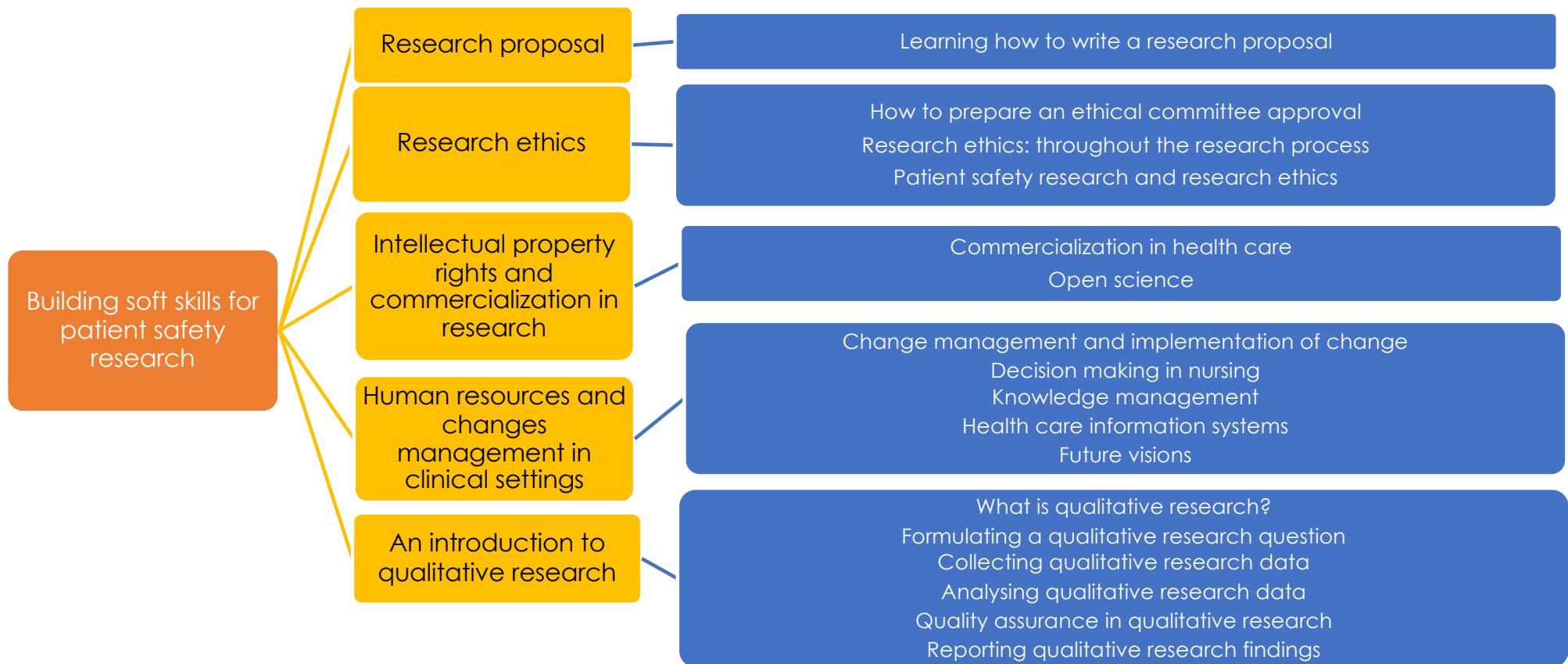
Module 1: Fundamentals of patient safety



Module 2: Patient safety culture and patient safety involvement in patient safety research



Module 3: Building soft skills for patient safety research



Methodology

- Workshops & preparatory activities for the workshops
- Video-lectures
- Forum exchange
- Activities: e.g. short questionnaires and quizzes, case analysis, personal reflections, articles critical discussions, writing a research plan, interactive activities
- Reading relevant papers
- Webinars with experts
- Self-study and final test or assignment

• Basic and advanced versions

Chapter 2: Patient involvement in patient safety

This chapter is about the **learning goal**: Explain to your colleagues why patient involvement in patient safety is important

Aim of the chapter:

- Participants can define the concept of patient involvement in healthcare practice
- Participants can address the relevance involving patients in patient safety

Additional aim for **advanced version** students:

- Participants can provide examples of patient involvement in patient safety on different levels in their own workplace on 1) direct patient care and 2) the organization

In this chapter we have **three paragraphs**:

- 2.1 The concept of patient involvement
- 2.2 Levels of patient involvement
- 2.3 Patient involvement in patient safety

Chapter 2: What is safety culture in healthcare

This chapter is about the **learning goal**: Explain to your colleagues why safety culture is important for patient safety and how culture can affect patient safety

Aim of the chapter:

- Participants are informed about the concept of culture in healthcare and know what safety culture is
- Participants know the elements of safety culture in healthcare

In this chapter we have **three paragraphs**:

- 2.1 Organizational culture in healthcare
- 2.2 Culture or climate?
- 2.3 Safety culture in healthcare

Workshop 1: the what and why on literature reviews and the first steps in performing a systematic review

Aim of workshop 1

After following workshop 1 you will:

- know what literature reviews are
- understand the importance of literature reviews
- have an overview of different forms of literature reviews and their differences
- understand the first steps in performing a literature review: identify a research question, selecting databases and developing the search strategy

Workshop overview

1. Preparatory activities
2. Watching recorded videos

All the recorded videos are essential to watch and listen since they provide you with the knowledge necessary to accomplish the learning goals related to this course.

If you have any questions related to the lectures, please put them on the question forum and we will answer them as soon as possible.



TREATMENT OF ELDERLY IS PRONE TO ERRORS!

Population-based review of medical records in 1992 HOSPITALS IN US STATES OF UTAH AND COLORADO

Learning methods:

QUIZ PUZZLE
RELIABILITY SCIENCE
AND PATIENT SAFETY

START

SOUTH ESTONIAN HOSPITAL - FUTURE HIGH RELIABILITY ORGANIZATION?

A high reliability organization (HRO) is characterized as one in which accidents rarely occur despite the error-prone nature of work. This infographic describes what characteristics of HRO a general hospital South Estonian Hospital (SEH) has and what it lacks.

- 1 PREOCCUPATION WITH FAILURE**
 - Feedback and suggestions form exists
 - Culture allows to give verbal feedback to leaders
 - No system to report safety incidents and near misses
 - Anonymous feedback is not processed
- 2 RELUCTANCE TO SIMPLIFY INTERPRETATIONS**
 - There are many outside experts that work in both SEH and other hospitals
 - As far as I know, safety incidents and errors are not systematically analyzed
- 3 SENSITIVITY TO OPERATIONS**
 - Treatment manager is also an active hospitalist, seeing many problems first-hand
 - There are various possibilities to participate in trainings, including obligatory trainings
 - Daily hospital-wide briefings
 - Weekly, more in-depth briefings
 - Management doesn't actively look for unsafe behaviors/places in the hospital
 - The culture doesn't allow correcting colleagues' unsafe behaviors

Active error
 An error that occurs at the level of the frontline operator and whose effects are felt almost immediately.

Active errors are generally readily apparent (e.g., pushing an incorrect button, ignoring a warning sign, etc.) (Patient Safety Network).

Patient Safety Network: <https://psnet.ahrq.gov/glossary>

▶ Comments (0)

Adverse Event
Definition: An injury that was caused by medical management or complication instead of the underlying disease.
Example: Hip fracture due a fall in the hospital

COPIES

Contrary to a simplistic view, organizational theory indicates that organizations are very complex, non-linear, dynamic systems.

Examples of the activities and learning methods: Module 2

Question 3

Not yet answered

Marked out of 1.00

Flag question

Edit question

What is the 'I' (intervention in PICO) in this research question "What is the effect of 'patient safety leadership walk rounds' on patient safety culture in the hospital setting?"

- Patient safety leadership walk rounds
- Hospital setting
- Patient safety culture

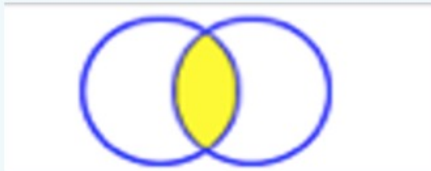
Question 4

Not yet answered

Marked out of 1.00

Flag question

Edit question



Select one:

- True
- False

Question 5

Not yet answered

Marked out of 1.00

Flag question

Edit question

Which database focuses on references from the nursing and allied health disciplines:

- PubMed
- Web of Science
- Embase
- CINAHL

Examples of the activities and learning methods: Module 3


Pe
Se

Question 4
Not yet answered
Marked out of 1.00
Flag question
Edit question

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3. If possib
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UNIVERSITY OF TARTU
Institute of Clinical Medicine



AVEDIS
DONABEDIAN
ACREDITED

IQ Scientific Center for Quality of Healthcare

Optional course module 2.1 An introduction to qualitative research



Gijs Hesselink
Postdoctoral research fellow IQ Healthcare
Radboud university medical center

assignment is 17.06.2022. You will receive an individual feedback from course coordinator Mari Kangasniemi.

CO

Interaction - What are your thoughts about the following patient safety research topics?

- Go to **www.menti.com** and use the **code 46903151**
 - An ideal Patient Safety Incidents Reporting System should: ...
 - Select one answer
 - A positive patient safety culture means to me: ...
 - Insert short answers
 - To what extent do you agree with the following statements on patient involvement: ...
 - Agree, neutral, or disagree
 - The first thoughts that come to mind regarding research ethics in health care are: ...
 - Submit one answer, including one or more thoughts

Research stay in Barcelona (April dates, 2022)

- Addressed to early stage researchers
- Tailor the educational program to specific research interest
- In depth discussions with experts, focus time to writing papers, receiving feedback about own research, hospital visit.
- Main topics of discussion:
 - Measurement of adverse events
 - Implementation science
 - Systematic reviews and evidence maps of the literature
 - Trigger tools
 - Success factors of a Quality Improvement PhD

Participating partners

Strategic partnership with Avedis Donabedian Foundation (FAD) from Spain and IQ healthcare (IQ HC) from the Netherlands. Both international leaders in patient safety research, enables developing a long-lasting knowledge exchange alliance allowing ICM-UT to capitalise on its current achievements and to overcome gaps in scientific excellence in the field of patient safety research.



Location

The program activities will be developed at:
Avedis Donabedian Research Institute
[Provenza 293, Pral. 08037](#)
Barcelona

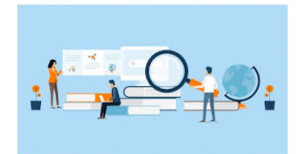


PATSAFE

Developing the University of Tartu to a well-networked PATient SAFETY research center in Estonia (PATSAFE)

Early stage researchers program Barcelona

4th-8th of April, 2022



The early stage researchers program is part of the training programme on patient safety research (PATSAFE project). PATSAFE has received funding from the European Union's Horizon 2020, Coordination and Support Action programme, under grant agreement n° 857359.

Research stay in Nijmegen (May 18-20, 2022)

- Welcome to IQ healthcare, introduction & tour
- Time for discussion, writing, (peer) feedback about own research
- Meetings with experts in Radboudumc on:
 - Implementation research & quality improvement, obstetrics and gynaecology department
 - Patient involvement in practice and research (including the perspectives of a patient representative)
 - Incident reporting and analysis, prospective risk analysis (direct observation), patient safety policy and research, tour, Operating Theatre department
 - Patient safety culture in Radboudumc
 - Literature review, medical library

3. Implementation research & quality improvement in the obstetrics and gynaecology department
16.00-17.00 h.
Mallory Wojski, MD, PhD, Obstetrician, Obstetrics & Gynaecology department Radboudumc (Geert Grooteplein 10, route 791)

3. Incident reporting and analysis, prospective risk analysis (direct observation), patient safety policy and research, tour Operating Rooms department
13.30-16.30 h.
Anita Heideveld-Chevalking, RN, PhD, coordinator patient safety, Operating Rooms department (Geert Grooteplein 10, route 738)

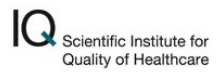


Thursday, 19 May

By bike to IQ healthcare, Radboudumc

1. Patient involvement in practice and research
9.00-10.30 h.
René Tabak, patient representative, chair Patient Advisory Board, Radboudumc Health Academy
IQ healthcare

RESULTS – number and experiences of students



Participants in each course

Module 1	Module 2	Module 3
<p>The science of patient safety and the burden of unsafe care</p> <p>70 students registered 25 certificates provided (10 advanced, 15 basic) 30 students active but haven't finished yet</p>	<p>Patient safety culture</p> <p>52 students registered 13 certificates provided (9 advanced, 4 basic) 14 students active but haven't finished yet</p>	<p>Research proposal</p> <p>13 students registered 13 certificates provided</p>
<p>Methods of analysis of adverse events and improvement of patient safety (I)</p> <p>28 students registered 8 certificates provided (4 advanced, 4 basic) 10 students active but haven't finished yet</p>	<p>Patient safety involvement in patient safety research</p> <p>28 students registered 6 certificates provided (5 advanced, 1 basic) 6 students active but haven't finished yet</p>	<p>Research ethics</p> <p>10 students registered 8 certificates provided</p>
<p>Methods of analysis of adverse events and improvement of patient safety (II)</p> <p>7 students registered. 3 certificates provided (2 advanced, 1 basic) 3 students active but haven't finished yet</p>	<p>Validation techniques of measurement tools to study safety culture in Estonia</p> <p>32 students registered. 11 certificates provided (5 advanced, 6 basic) 14 students active but haven't finished yet</p>	<p>Intellectual property rights and commercialization in research</p> <p>15 students registered 5 certificates provided 8 students active but haven't finished yet</p>
<p>Implementation science and patient safety improvement</p> <p>6 students registered to the online course 4 students active but haven't finished yet</p>	<p>An introduction on literature reviews</p> <p>24 students registered. 11 certificates provided (8 advanced, 3 basic) 3 students active but haven't finished yet</p>	<p>Human resources and change management in clinical settings</p> <p>65 students registered 30 certificates provided 32 students active but haven't finished yet</p>
		<p>Qualitative research methods</p> <p>42 students registered. 12 certificates provided 12 students active but haven't finished yet</p>

Satisfaction with the courses

- In each course, we included a 'Course assessment' questionnaire
- Mean grades range from 8 to 10 (Mean all courses: 8.7)

Module 1	Module 2	Module 3
The science of patient safety and the burden of unsafe care Mean grade (0-10): 8.1	Patient safety culture Mean grade (0-10): 8.3	Research proposal Mean grade (0-10): 8
Methods of analysis of adverse events and improvement of patient safety (I) Mean grade (0-10): 9.3	Patient safety involvement in patient safety research Mean grade (0-10): 8.4	Research ethics Mean grade (0-10): 9
Methods of analysis of adverse events and improvement of patient safety (II) Mean grade (0-10): 10	Validation techniques of measurement tools to study safety culture in Estonia Mean grade (0-10): 9	Intellectual property rights and commercialization in research Mean grade (0-10): 9.9
Implementation science and patient safety improvement Mean grade (0-10): 8.4	An introduction on literature reviews Mean grade (0-10): 8.7	Human resources and change management in clinical settings Mean grade (0-10): 8.7
		Qualitative research methods Mean grade (0-10): 8.6

Qualitative inputs: strenghts and improvement areas



- Professional and good quality video-lectures with experts
- Good course structure and coherence
- Good materials
- Reflection and practical tasks are well appreciated
- Cases and forum discussions



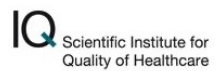
- Time consuming /demanding courses
- Too many courses at the same time
- Language issues
- More qualitative evaluation is needed (than quantitative approach)

Lessons learnt

- Training needs vary among participants → more tailored approaches are needed
- Limited time
- All topics are relevant
- Early-stage researchers more interested in applied, local research
- Big opportunities for collaboration and cross learning among partners
- Twinning approach as excellent opportunity for making educational and research synergies



IMPACT – products, publications & abstracts, grant SAFEST and proposal Erasmus+



Products

- Tools, e.g.
 - a guide to perform root cause analysis
 - a framework for hospital safety culture
 - a guideline for preparing a research proposalSee toolbox on this website: [PATSAFE | Välisveeb \(ut.ee\)](#) including 14 tools
- Translated and validated questionnaires to assess patient safety culture:
 - Two questionnaires from the healthcare staff perspective:
 - the Hospital Survey on Patient Safety Culture (HSOPS)
 - the Safety Attitudes Questionnaire (SAQ)
 - One questionnaire from the patient perspective:
 - the OECD patient-reported incident measures (PRIMs) questionnaire

Publications

- Publications submitted:
 - PATSAFE: a Twinning project to strengthen patient safety research and training capability in Estonia
 - Identifying patient safety research priorities in Estonia—results of a Delphi consensus study
- Publications in progress:
 - Factors that facilitate and impede successful implementation of an educational program on patient safety research developed by a multinational and multicentered team
 - Students' experiences in learning about patient safety research
 - Development of a national patient safety strategy in Estonia
 - International Delphi study on research priorities in patient safety
 - Validation of the instruments to measure the safety culture in Estonian hospitals: questionnaires for patients and staff in two languages (Estonian and Russian)
 - Literature review: use of trigger tool in care of older patients



Abstracts in conferences

International Forum on Quality and Safety in Healthcare, 2021

PATSAFE: working together for patient safety improvement in Estonia

Kaja Põlluste*, Hilje Calsbeek**, Mari Kangasniemi*, Margus Lember*, Carola Orrego***, Joel Starkopf*
*University of Tartu, Estonia; **IQ healthcare, The Netherlands; ***Avedis Donabedian Foundation, Spain

Developing the University of Tartu to a well-networked PATient SAFETY research centre in Estonia:
Twinning partnership with Avedis Donabedian Foundation from Spain and IQ healthcare from The Netherlands

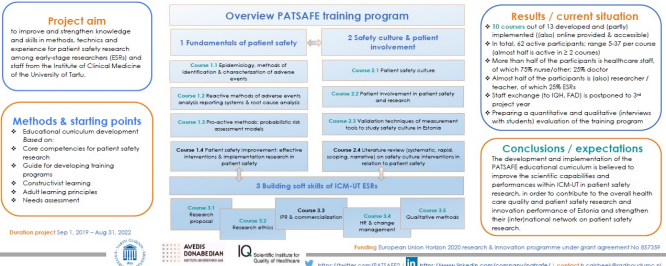


PATSAFE, a multi-country project to develop and implement a curriculum to improve research on patient safety in Estonia

Abstract no. 941

Hilje Calsbeek¹, Kaja Põlluste², Anne van Tuijl³, Carola Orrego⁴

¹ IQ healthcare (IQH), Raboud Institute for Health Sciences, Raboud University Medical Center, the International Institute of Clinical Studies, University of Twente, Enschede, The Netherlands; ² Avedis Donabedian Foundation (ADF), Barcelona, Spain



ISQua, 2021

PATSAFE conference, 2022

ID Abstract: 1255

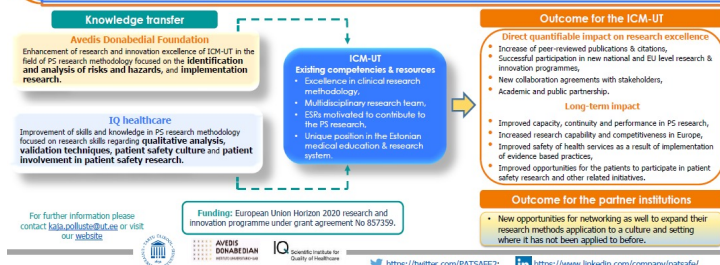
PATSAFE: a twinning project to strengthen patient safety research and training capability in Estonia

Kaja Põlluste*, Hilje Calsbeek**, Mari Kangasniemi*, Carola Orrego***
*University of Tartu, Estonia; **IQ healthcare, The Netherlands; ***Avedis Donabedian Foundation, Spain

Objective: to improve academic skills to perform quality research and providing training on the patient safety (PS) training and research among the staff and early stage researchers (ESRs) at the Institute of Clinical Medicine at the University of Tartu (ICM-UT).

Methods: SWOT analysis to identify the gaps in the scientific excellence in PS research methodology at ICM-UT and plan the activities necessary for increasing it.

Results: a twinning partnership between the University of Tartu and two internationally leading institutions in PS research – Avedis Donabedian Institute in Spain and IQ healthcare in The Netherlands – PATSAFE Project (Sep. 1st, 2019 – Aug. 31st, 2022).

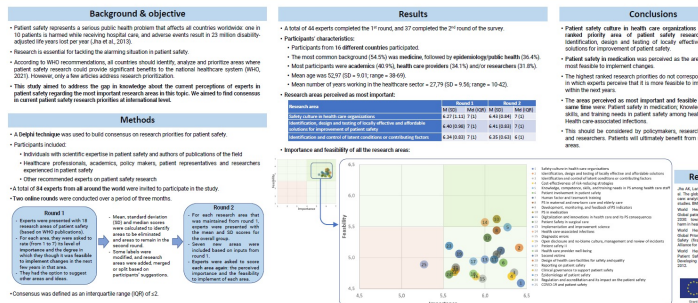


ISQua, 2021

International Forum on Quality and Safety in Healthcare, 2022; PATSAFE conference, 2022

International priorities in patient safety research: A Delphi study

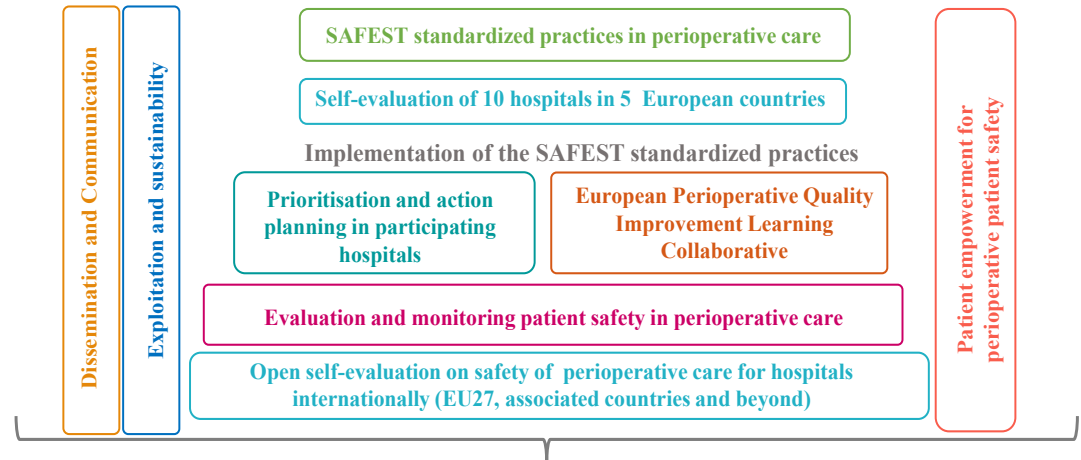
Helena Vall-Roque^{1,2,3,4}, Kaja Põlluste⁵, Tina Freimant⁶, Hilje Calsbeek⁷, Anne van Tuijl⁸, Carola Orrego^{1,2,3,4}
¹Avedis Donabedian Institute (ADI), Spain; ²International Institute of Clinical Studies, Barcelona, Spain; ³Health Service Research Network on Chronic Diseases (REDISCC), Spain; ⁴Research for Research on Diversity, Priority Care, and Health Promotion (RDPCRH), Spain; ⁵University of Tartu, Estonia; ⁶IQ Healthcare, The Netherlands; ⁷IQ Healthcare, The Netherlands; ⁸IQ Healthcare, The Netherlands



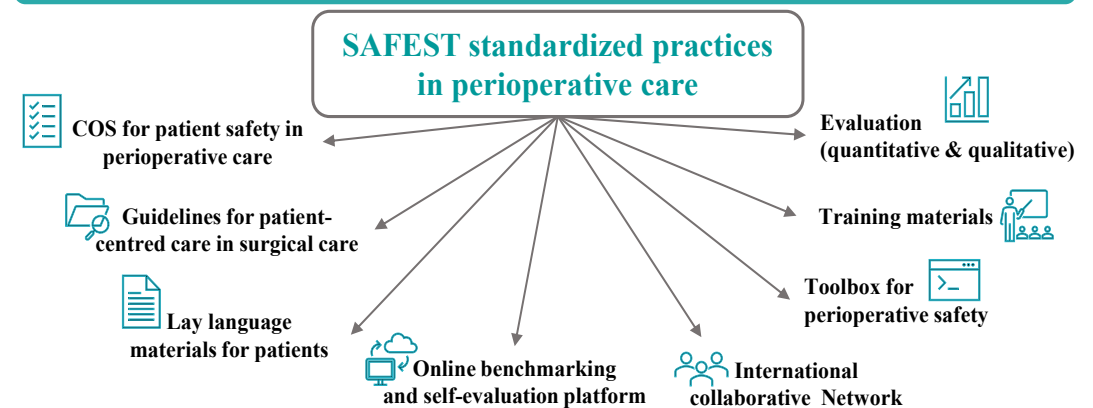
Grant SAFEST

- Aim:** To improve the adherence to evidence-based standardised patient safety practices in perioperative care by 15% and reduce the frequency of surgical complications by 8% after 18 months of a multicomponent intervention.
- Based on the broad support of European stakeholders, through a Perioperative Quality Improvement Learning Collaborative (PQILC), we will determine contextual factors (at macro-, meso- and micro-levels) that inhibit or promote the adoption of evidence-based practices and develop recommendations and lessons learnt to reduce knowledge-practice gaps.

SAFEST project and results

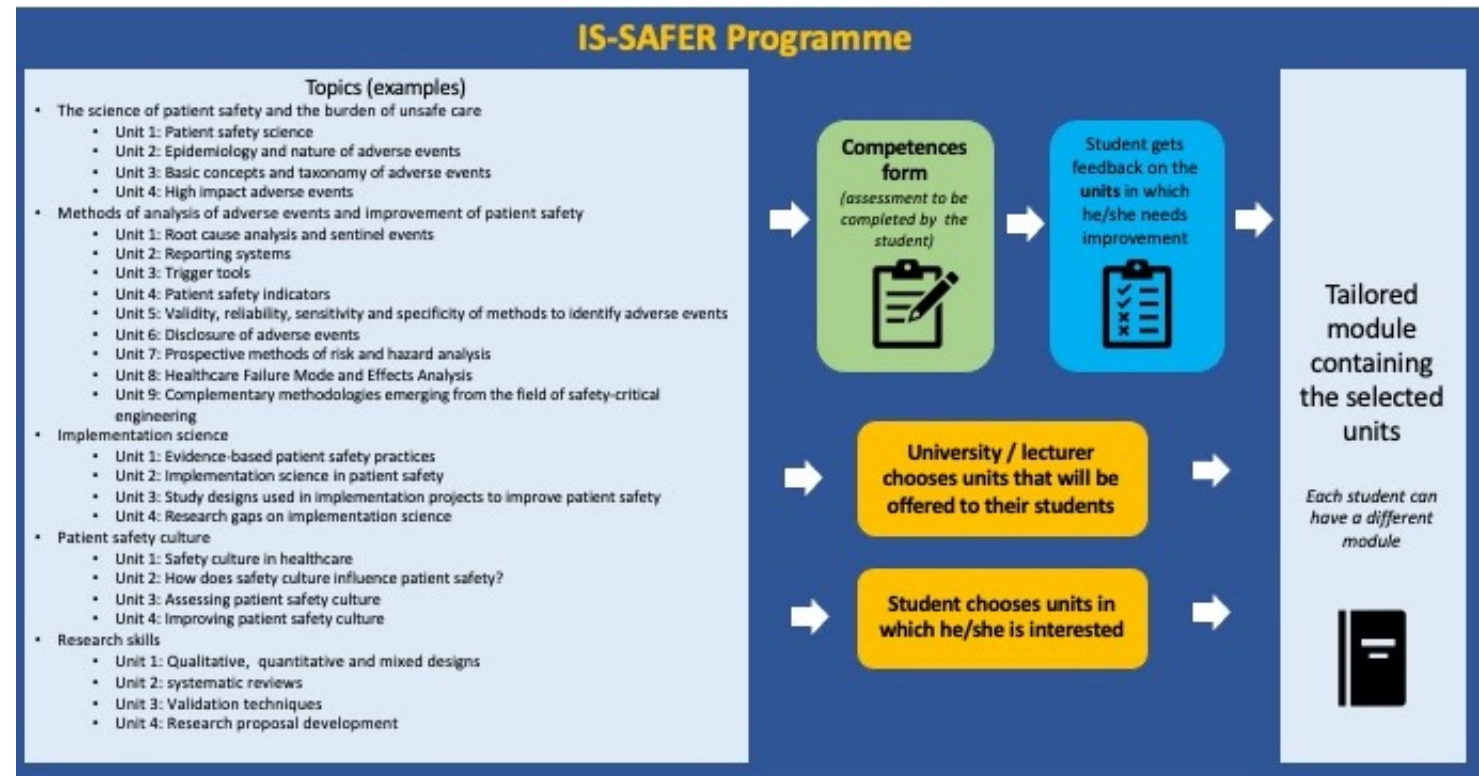


SAFEST results



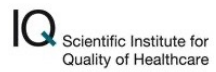
Proposal Erasmus+

- International **S**chool on patient **SAFETY** **R**esearch
- To create an online multilingual training programme in methods and techniques for patient safety research
- Intended as complementary modules for existing bachelor and master programmes in health sciences, quality management, etc.
- Accessible for also participants with chronic conditions or physical disabilities





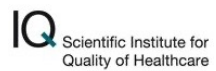
DISCUSSION: sustainability & plans for the future



Sustainability & plans for the future

- Integration of some courses in existing curricula:
 - The course 'HR and change management in clinical setting' has been integrated twice (in two semesters) in the Nursing Sciences Master program
 - There is also interest in the Validation course, the Implementation Science course, and the Literature Review course
 - Some students and teachers from the same department have participated in the courses on Validation techniques, Qualitative Research, Literature Review, Ethics, etc.)
- Develop business case for future use of the courses
- Network of partner institutions, continue working together
- Learning from the PATSAFE educational development and open it to a wider audience
- Erasmus+ proposal: develop smaller learning units based on the PATSAFE courses in English, Estonian, Spanish and Dutch for use in several existing bachelor and master curricula

PATSAFE COURSES STILL OPEN UNTIL AUGUST 2022!



Thank you

