



Improving **quality** and **patient safety** in surgical care through **standardisation and harmonisation** of perioperative care in Europe

Between 8% and 12% of patients admitted to hospitals in the EU suffer adverse events. Of these, surgical adverse events are among the most common.

When considering surgical safety, one must consider the entire surgical pathway. In fact, several studies have shown that most surgical errors occur outside the operating room, before and after surgery.

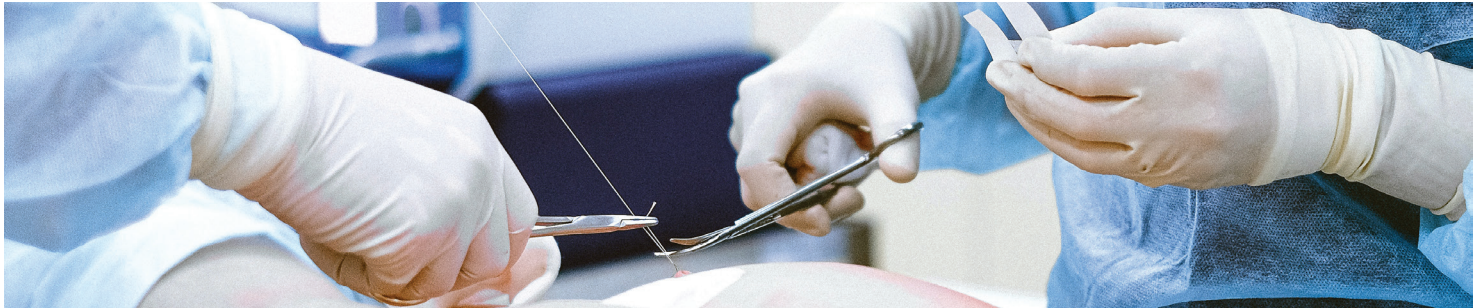
In addition to the damage caused in terms of loss of life, the economic burden for the EU public

health sector is significant: direct costs related to patient safety represent around 21 billion EUR (1.5% of healthcare expenditure).

SAFEST's ambition is to play a decisive role in improving patient safety in perioperative care, through the definition, implementation and evaluation of evidenced-based standardised practices developed by SAFEST in 10 hospitals in 5 EU countries.

SAFEST overall objective

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 the intervention.



SAFEST specific objectives

To develop **patient-centred and evidence-based standardised patient safety practices** in perioperative care.

To develop a **proof-of-concept** for the impact of the implementation of the evidence-based standardised practices in **10 selected hospitals** and their continuum of care networks in **5 EU member states**, through a European Perioperative Quality Improvement Learning Collaborative involving clinicians, patients, and caregivers.

To ensure **sustainability and exploitation** of SAFEST results beyond the lifespan of the project.

To carry out a **self-evaluation and compare uptake of evidence-based standardised patient safety practices** in perioperative care in European hospitals and beyond.

To **identify micro, meso- and macro-level contextual barriers and facilitators** to harmonising care through standardised practices.

To involve **patients (and caregivers) as partners** in the evaluation and improvement of perioperative safety/care through the entire patient journey.

To establish priorities and action plans for patient safety in perioperative care in **10 implementing hospitals** and their continuum of care networks in **5 EU member states**.

To **evaluate and compare the effectiveness of the SAFEST strategy** to improve the adherence to standardised perioperative practices and reduce surgical complications.

To **raise awareness** for patient safety in perioperative care and achieve broad outreach of the project results.

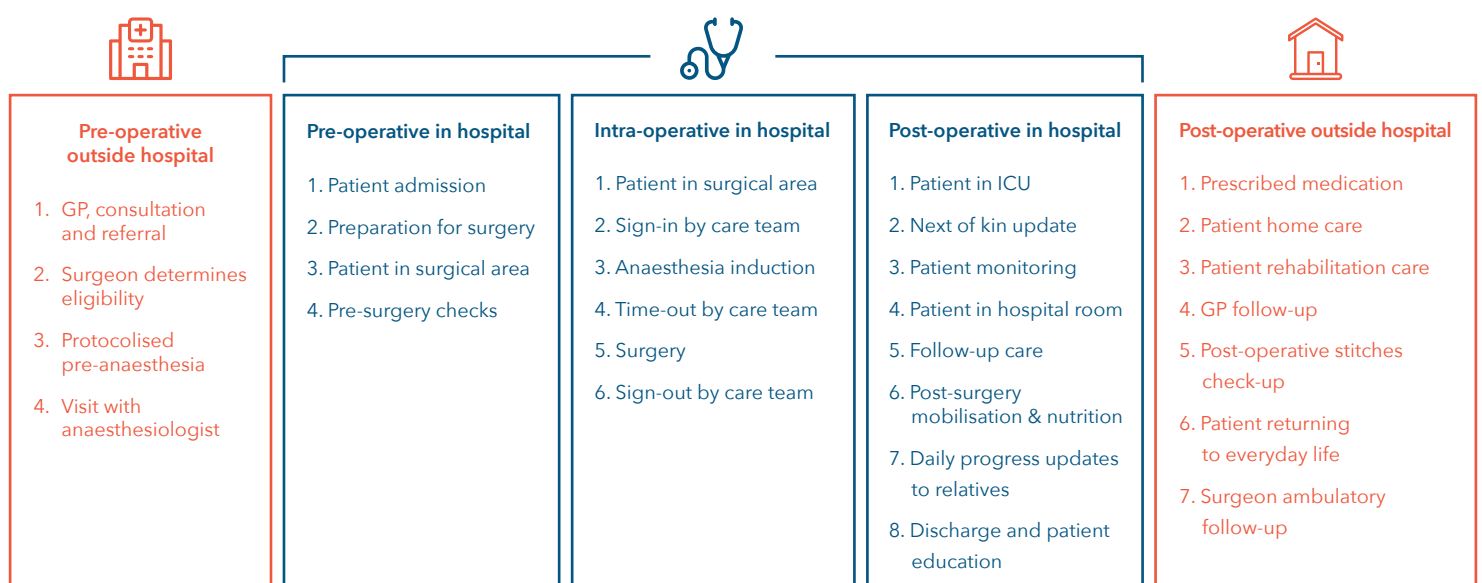


Figure 1. Perioperative journey in the SAFEST project



Target population



Patients, patient
representatives and caregivers



Health care providers
and managers



Scientific societies
and associations



Health care safety and quality
accreditation organizations



Health policy makers
and decision makers



Scientific community



Project fundings

This project is funded by the European Union under the Horizon Europe Research and Innovation Programme with grant agreement N° 101057825

Project timeline

1st of June 2022 to 30th of May 2026



Ethical approval

The SAFEST project has been assessed and approved by the local Clinical Research Ethics Committee (Comitè Ètic d'Investigació Clínica de l'IDIAP Jordi Gol) and it was granted on the 26th of July 2022 (22/146-P.)



SAFEST project phases

The project will consist of 6 main phases addressed in 9 WPs. Figure 2 below represents SAFEST overall approach and project's results.



Phase 1. Development of the SAFEST standardised practices for perioperative safety care

Based on a systematic review methodology, we will produce a first draft of existing standardised practices that will be evaluated by experts and stakeholders (including patients) through a modified 2 round Delphi technique and a consensus conference. A final version of the SAFEST standardised practices will be produced after the evaluation process in implementation hospitals.



Phase 2. Guided self-evaluation of the SAFEST standardised practices in 10 hospitals across 5 countries and beyond

The participating hospitals we will participate in training activities to conduct a guided self-evaluation to assess the degree of implementation of the SAFEST standardised practices. The tool for the self-evaluation will be interactive and it will be incorporated in an online platform that we will develop. Finally, we will launch a call for participation to extend the self-evaluation of the SAFEST standardised practices in more than 100 hospitals from the 27 Member States and potentially outside the EU.



Phase 3. Identification of priorities and actions plans

Based on an umbrella review methodology, we will identify effective evidence-based interventions to improve patient safety in the perioperative care process. We will then conduct webinars and interviews with multi-professional implementation teams, including hospital representatives, to discuss and identify priority improvement areas at hospital and country level. Based on the results, the multi-professional implementation teams will develop a driver diagram and an action plan for the selected improvement priorities at the participating hospital level.



Phase 4. Setting up of Perioperative Quality Improvement Learning Collaborative (PQILC)

A Perioperative Quality Improvement Learning Collaborative (PQILC) will be established to facilitate the implementation of the SAFEST standardised practices and to ensure that the SAFEST standardised practices are implemented in an equitable, effective, and affordable way. Based on the action plans developed in step 3, we will develop the PQILC curriculum for the hospital implementation teams to support the implementation of SAFEST practices.



Phase 5. Evaluation of the SAFEST strategy effectiveness and monitoring for patient safety improvement

Based on an umbrella review methodology, we will identify outcomes to assess patient safety in perioperative care. We will collect data at hospital and patient level to assess the impact of the SAFEST strategy, including patient-reported outcome measures (PROMs) and patient-reported experience measures (PREMs), that will be prioritised by experts and stakeholders (including patients) through an eDelphi technique and consensus conference. This data will be interpreted in light of the contextual factors (facilitators and barriers), enabling a realistic approach to effectiveness assessment.



Phase 6. Patient empowerment for patient safety

A group of expert patients will be recruited to supervise the different activities of the project and participate throughout the entire span of the project. Patients' involvement will ensure that their perspective is included at each phase of the development of the project.

SAFEST overall approach



SAFEST results

SAFEST standardised practices in perioperative care

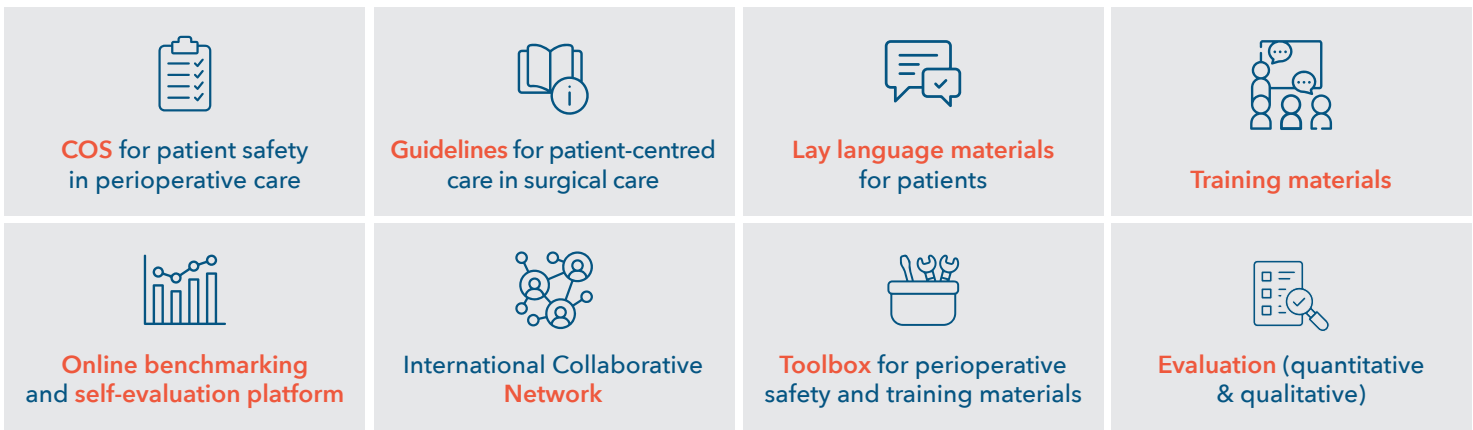


Figure 2. SAFEST approach and results

SAFEST is based on 9 work packages (WP)



Participating partners

Fundación Avedis Donabedian para la mejora de la calidad asistencial (COORDINATOR) - <i>Spain</i>	FAD
Netherlands Institute for Health Services Research - <i>The Netherlands</i>	Nivel
NOVA University Lisbon - <i>Portugal</i>	NSPH-NUL
Radboud university medical center - <i>The Netherlands</i>	Radboudumc
Sistema Español de Notificación en Seguridad en Anestesia y Reanimación - <i>Spain</i>	SENSAR
University of Tartu - <i>Estonia</i>	UTARTU
OptiMedis AG - <i>Germany</i>	OM
European Hospital and Healthcare Federation - <i>Belgium</i>	HOPE
European Society of Anesthesiology and Intensive Care - <i>Belgium</i>	ESAIC
Spojená akreditační komise - <i>Czech Republic</i>	SAK

Participating Hospitals

Participating hospitals will contribute to the project by implementing several activities across different WPs. Hospital staff will facilitate the implementation of the following activities:

- WP3** Self-evaluation of the degree of implementation of the defined safety standards.
- WP4** Participation in the prioritisation process and action planning.
- WP5** Implementation of the improvement actions.
- WP6** Participation in the evaluation activities (data collection from administrative data and health records review).
- WP7** Recruiting professionals and/or patients for interviews or discussion groups.



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