

## **Transforming surgical and anaesthesia capacity and safety – the path to success: the European Society of Anaesthesiologists' perspective**

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Following the production of international standards for safe practice of anaesthesia by the World Federation of Societies of Anaesthesiologists (WFSA) in 1992, which were revised in 2008 and 2010,<sup>1</sup> the European Society of Anaesthesiologists (ESA) and European Board of Anaesthesiology (EBA) launched the Helsinki Declaration on Patient Safety in Anaesthesiology (<https://www.esahq.org/patient-safety/patient-safety/helsinki-declaration/full-declaration>).<sup>2</sup> This declaration emphasises the role of anaesthesiology in promoting safe perioperative care and underscores the fact that perioperative patient safety is a core topic of interest for the society. The ESA promotes this by providing access via the website to the Patient Safety Starter Kit ([https://www.esahq.org/patient-safety/patient-safety-starter-kit](https://www.esahq.org/patient-safety/patient-safety/patient-safety-starter-kit)). The ESA Patient Safety and Quality Committee is very active in organising European Patient Safety and Quality Courses and Masterclasses and in promoting the Patient Safety Expert Network. The interest of patient safety extends far beyond Europe as can be observed on the Helsinki Declaration map (<https://www.esahq.org/-/media/ESA/Files/Downloads/Resources-PatientSafety-MapHelsinkiDeclaration/Resources-PatientSafety-Map%20Helsinki%20Declaration.ashx>). Many countries all over the world have signed this Declaration. For instance, Australia and New Zealand have supported the Declaration since 2010; Canada and the USA since 2010 and 2014, respectively; Latin America since 2012; and China and Japan since 2015. Many other countries have followed. In other words, there is a worldwide major interest in the problem of perioperative patient safety.

However, signing a declaration is one thing; another issue is to really implement the principles of that declaration in our daily clinical practice. In 2012, the ESA launched a survey among its council members and national anaesthesiology societies interrogating how three main aspects of the Helsinki Declaration were implemented in their national daily practices. The response rate was impressive, with more than 90% of the member countries providing feedback.

Interestingly, monitoring standards seemed to have been very well implemented in the majority of countries; however, the World Health Organization (WHO) guidelines and organisation of patient safety teaching and training facilities were significantly less well implemented in the various national practices. These data indicated that there is still a huge amount of work to be done to get all different aspects of perioperative patient safety implemented in our daily clinical practice.<sup>3-5</sup>

What are the main challenges for Europe in organising similar efficient and effective high-level standards for patient safety in all of its member countries? Although many problems will be similar to those in other places worldwide, Europe faces a major challenge because of its specific political composition of a conglomerate of individual nations with specific languages and healthcare system organisation. Indeed, the European Union consists of 28 member countries in which 24 different languages are spoken. As a mirror of this, the ESA, with its approximately 9000 active members and more than 35,000 associate members, encompasses more than 40 different nationalities.

A 2012 report from the European Commission investigated the topic of Europeans and their languages ([http://ec.europa.eu/commfrontoffice/publicopinion/archives/ebs/ebs\\_386\\_en.pdf](http://ec.europa.eu/commfrontoffice/publicopinion/archives/ebs/ebs_386_en.pdf)). Some interesting observations were made. First, in accordance with the population, the most widely spoken mother tongue seems to be German (16%), followed by Italian and English (13% each), French (12%) and then Spanish and Polish (8% each). Interestingly, at a national level English is the most widely spoken foreign language in 19 of the 25 Member States where it is not the official language. The five most widely spoken foreign languages are English (38%), French (12%), German (11%), Spanish (7%) and Russian (5%). It is to be underscored that just over half of Europeans (54%) are able to hold a conversation in at least one additional language, one-quarter (25%) are able to speak at least two additional languages and only one in 10 (10%) are conversant in at least three languages. It is obvious that

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the issue of diversity of language creates a huge challenge in terms of implementing common European initiatives such as patient safety directives in individual national daily practices.

Other problems are related to the differences in financial and human resources in the various European countries and the different organisation of the healthcare systems, all of which can influence standard of care. In 2012, the European Surgical Outcomes Study (EuSOS) group published the results of 7-day mortality after surgery in Europe.<sup>6</sup> Astonishingly, a mean of 4% 7-day mortality was observed, ranging from 1.2% to as much as 21.5% depending on the country. This excess mortality seemed to be related to what the authors referred to as 'failure to rescue'. In other words, patients died because of lack of identification and prompt treatment of adverse perioperative events. This failure to rescue seemed to be related to a lack of adequate resources, suggesting a direct relationship between improved patient outcome, patient safety and available human and financial resources.

This problem deserves further attention. One of the basic principles of the European Union is free movement of students, patients and doctors across borders. If one takes a closer look at the monthly salaries for board-certified anaesthesiologists in Europe, a greater than 10-fold difference can be observed between low-income and high-income countries.<sup>7</sup> The result is a brain drain of board-certified anaesthesiologists from low-income (mainly Eastern and Southern Europe) to high-income countries (North-western Europe).<sup>8</sup> The consequence is a lack of trained and skilled professionals in those areas suffering from the brain drain.<sup>9</sup>

How is the ESA dealing with all of these challenges? Several projects are ongoing. Yearly, two or three guidelines are produced on various topics in anaesthesiology and intensive care, critical emergency medicine, pain and perioperative medicine. These guidelines are meant to provide recommendations for standard of care, which should help to bring practices all over Europe to the same level. In addition, they may help local care providers convince hospital administrations and healthcare officials about the specific needs to achieve these European standards of care.

The European Diploma in Anaesthesiology and Intensive Care (EDAIC) undoubtedly contributes to setting a universal high standard with regard to the knowledge and skills of anaesthesiologists worldwide. Programmes such as 'mentor/mentee' and 'train abroad-return home' aim to allow professionals in low-income countries to develop their skills with the help of foreign colleagues/centres with specific expertise.

In line with the Helsinki Declaration Heads of Agreement 7 (need for research), ESA-supported research contributes to provide necessary data to update the situation on current perioperative morbidity and mortality issues and identify potential areas of improvement (e.g. EuSOS, ETPOS, APRICOT, NECTARINE, LAS VEGAS, PROBESE, POPULAR, METREPAIR).

The Helsinki Declaration calls for routine measurement of safety in all anaesthesia departments. Because no generally accepted and sufficiently evidence-based set of anaesthesia quality/safety indicators exists,<sup>10,11</sup> the ESA Patient Safety and Quality Committee has started the ESA Quality Indicators Project (EQUIP). EQUIP is surveying national anaesthesia societies to establish an overview of anaesthesia quality indices used in Europe. This approach is complementing formal research about quality indices by describing commonly and successfully used indices, the suitability of quality indices in routine practice of different countries in Europe and common obstacles to and requirements needed for implementation of quality indices.

A major challenge is consistent implementation of the Helsinki Declaration principles such as patient safety programmes across Europe. To meet this challenge, the ESA has started the Helsinki Declaration Follow Up (HD-FU) Project. This research project is designed to better understand the local and regional/national differences in anaesthesia departments that help or hinder implementation of the Helsinki Declaration requirements. Based on the results, strategies will be developed that improve implementation and adaptation nationwide.

Patient safety is a concern of every person and society dealing with patient care. The ESA is committed to close cooperation with all anaesthesiology and other specialist societies involved in perioperative patient care. A good example of such cooperation is the International Forum on Perioperative Safety and Quality. This is a meeting jointly organised by the ESA and the American Society of Anaesthesiologists at their yearly scientific meeting. After a successful meeting in Boston last autumn, we organised a new edition of this symposium in Copenhagen on 1 June in conjunction with Euroanaesthesia 2018, which took place on 2–4 June. The Keynote Lecture, delivered by Professor Charles Vincent (Oxford, UK), was entitled 'Safer healthcare: strategies for the real world'. By attending meetings such as this, anaesthesiologists can take the opportunity to meet colleagues and gain new knowledge about fatigue risk management and about the role of simulation for improving patient outcomes.

Finally, caregivers are not the only stakeholders when thinking about perioperative patient safety. Our industry partners and the different patient societies and movements are also important key players. In the end, major advances in patient safety can be achieved only when all stakeholders work together to achieve a safer patient environment.

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