

The WFSA SAFE-T Summit: overview and commentary

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On launching the SAFE-T (Safe Anaesthesia for Everyone – Today) campaign at the World Congress of Anaesthesiologists in Hong Kong in September 2016, the World Federation of Societies of Anaesthesiologists (WFSA) President and Board of Directors championed the concept of developing a series of SAFE-T Summits that could advance the global patient safety agenda. As the co-conveners of this first SAFE-T Summit we are pleased to provide a brief overview and commentary.

The objectives for the Summit were to update the discussion following the *Lancet* Commission on Global Surgery (2015) (<http://www.lancetglobalsurgery.org/>), with a focus on:

- indicators and metrics of surgical and anaesthesia capacity and safety;
- safety standards for equipment and medications;
- gaining perspectives on the global safety situation from a broad range of stakeholders including anaesthesiologists, surgeons, obstetricians, nurses, governments, the World Health Organization (WHO), industry, patient safety societies and other interested organisations and individuals.

This first SAFE-T Summit was jointly hosted by the WFSA and the Anaesthesia Section of the Royal Society of Medicine at its headquarters in London on Friday, 13 April 2018. There were over 250 participants. Here is our brief report on the entire proceedings.

In his opening keynote lecture, ‘The Global Challenge for Patient Safety’, **Dr Tore Laerdal** reminded us that there will be 80 million deaths by the year 2030, and that every second one of these will be avoidable. He discussed the relative roles of science, education and implementation in generating change. In practice, education and implementation are critical if the benefits of science are to be realised. Tore emphasised the importance of keeping things simple. The Helping Babies Breathe programme and bystander resuscitation (begun by Dr Peter Safar) provided great examples of this, with the graphic comment that ‘the community is the ultimate coronary care unit because the majority of heart attacks occur outside hospital’. In both cases,

the benefit of effective training of people with minimal or no prior qualifications has substantially outweighed any potential for harm. Importantly, in Tanzania, this training was provided under the auspices of, but not necessarily to, or even by, anaesthesiologists.

Dr Andy Leather turned to the messages of the *Lancet* Commission and progress since its report. The poorest one-third of the world’s population receive only 6.3% of its surgical procedures. If global inequity in surgical and anaesthetic care is to be addressed, clinicians will need to embrace the language of public (or population) health and the principles of health economics. Conditions amenable to surgical care contribute to one-third of the global burden of disease. Failures in access to this care, or in the safety of the care once accessed, have substantial, and indeed impoverishing, negative consequences at both individual and national levels. The *Lancet* Commission introduced the notion of three bellwether procedures (surgery for caesarean delivery, laparotomy and open fracture management) as an indicator of the overall capability of a hospital. Importantly, these procedures are the very ones for which safe care is most needed, often urgently, by the patients who currently cannot get it. These procedures can also be very difficult to perform safely, which makes the challenge of providing an adequately trained workforce very imposing.

Professor Justine Davies turned the discussion to the importance of data and why they matter. She asked ‘Whose data are they anyway?’, saying that their impact on the end user was critical. A key objective of measurement is influence, through making problems visible. Professor Davies illustrated this while at the same time introducing the important theme of gender equity, describing the surprising finding that female surgeons are more adversely affected by an unexpected patient death whereas male surgeons receive more benefit from an unexpectedly good result. She discussed the potential for unintended consequences of the use of metrics, using performance-based pay as an example, and introduced the graphic phrase ‘Weapons of math destruction’. The goal should be not so much hitting the target, as hitting the needs of our patients.

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Characteristics of useful data would include:

- availability;
- comparability;
- utility;
- feasibility.

A review of the availability of the core metrics from the *Lancet* Commission was somewhat sobering. The metrics for affordability are not available from any country and the metric for perioperative mortality is available only for 31 countries. Clearly, more work is needed.

Dr John Meara continued this theme, but with a strong emphasis on the positive. In particular, the World Bank now publishes data on surgery and anaesthesia for the first time. This is a breakthrough of the highest importance, but is vulnerable as a reversal of this decision could readily occur. It is essential that the appropriate data are provided to the World Bank on a regular basis if this is to continue.

Dr Meara introduced three words to capture the process of using data:

- acquire;
- curate;
- disseminate.

Clearly it will be difficult for any one group to manage these processes for all of the data relevant to surgery anaesthesia and obstetrics; hence, organisations will need to work together to this end.

Dr Meara also described the National Surgical, Obstetric and Anaesthesia Plan (NSOAP) of Tanzania, which he estimated has a cost of US\$1.70 per capita per year, representing astonishingly good value for money.

A lasting image from Dr Meara's lecture was that of an elephant: to move the elephant it is necessary to direct the rider, motivate the elephant and shape the path.

Dr Tom Weiser opened with a reminder of the Second Global Challenge of the WHO: 'Safe Surgery Saves Lives'. One of the outputs from this challenge is the definition of five metrics for the measurement of surgery and anaesthesia globally. One of the objectives in developing these metrics is to avoid unintended consequences. Dr Weiser presented a map of surgical volumes that, amongst other things, illustrated an extraordinary range for the highest density areas, from 12,000 to 36,000 operations per 100,000 population. This illustrates the point well that the world faces not only overutilisation of healthcare but also underutilisation. Should the available resource be distributed more equitably, everybody could benefit from the redistribution.

Professor Adrian Gelb defined 'capacity' (which also raises the question of the closely related concept of 'capability') and stressed

that capacity without safety is of little value, adding the often used quotation that 'Safety is not expensive, it is priceless'.

Professor Gelb introduced the third edition of the WHO–WFSA *International Standards for a Safe Practice of Anaesthesia*, which for the first time has been endorsed jointly by both the WHO and the WFSA [Gelb AW, Morriss WW, Johnson W, Merry AF, Abayadeera A, Belil N *et al.* World Health Organization–World Federation of Societies of Anaesthesiologists (WHO-WFSA) International Standards for a Safe Practice of Anaesthesia [published online ahead of print 7 May 2018]. *Can J Anesth* 2018. doi: 10.1007/s12630-018-1111-5].

He also introduced the associated Anaesthesia Facility Assessment Tool, which has been developed by the WFSA and his team at the University of California San Francisco (available at <https://www.wfsahq.org/resources/anaesthesia-facility-assessment-tool>).

Discussion in the subsequent panel included the notions that we are 'bombarded with information', that we need to 'keep it simple', that we should 'target the finance ministers of the world' and that it is essential that data are sent to the World Bank to ensure that this institution will continue including information on anaesthesia and surgery in its databases.

Dr Atul Gawande provided 'A Surgeon's Public Health Perspective'. He started by reviewing classic studies showing that at least half of adverse outcomes in surgery are preventable. The evidence indicates that the most effective approaches to improving surgical and anaesthesia safety lie less in training programmes or regulations than in measures systematising care. A prime example of this is the WHO Safe Surgery Checklist (http://www.who.int/patientsafety/safesurgery/ss_checklist/en/) (also an output from the WHO's Second Global Challenge). This is a process tool 'to get people on the same page'. However, its effectiveness in state and national populations depends on how it is implemented. Top-down mandates alone have been ineffective; when even modest bottom-up organisation and support of implementation teams has been provided, large reductions in mortality have been demonstrated.

Dr Gawande discussed the next generation of system interventions for safer surgery and anaesthesia care, including team training, coaching and the nation-wide simulation-based programme for training entire surgical teams currently being rolled out across New Zealand. Another is the incorporation of patient-reported outcome measures that ensure that the primary outcomes of surgery are actually achieved. For elective surgical patients, 'it is not a sign of success that you didn't die!' Finally, he pointed out a still undeveloped need: interventions to reduce unnecessary surgical interventions. He drew attention to the problem of inappropriate variation in healthcare, noting that rates of the most common operation in the world, caesarean section, vary across the world from 2% to 80% of deliveries, with the optimal rate for the safety of mothers and their babies measured at about 19%. The most unsafe operation is the one that should not have been done at all, he pointed out.

This theme was continued by **Professor Lesley Reagan**. There are 213 million pregnancies a year worldwide, 75 million of which are unplanned, and 303,000 maternal deaths, many of adolescent girls. The ability of a young woman to control whether or not she becomes pregnant impacts her lifetime risk of dying and her chance of secondary school education, amongst many other things. In Chad, where there is little or no ability to do this, the lifetime chance of dying during pregnancy is one in eight. Professor Reagan pointed out that you can't put your pregnancy on hold because your country is having a civil war, noting Iraq as an example. In effect, the determinants of maternal mortality are a matter of political will, and in the words of Professor Mahmoud Fathalla, Secretary General of the United Nations (referring to Millennium Development Goal 5), 'women are dying because societies have yet to make the decision that their lives are worth saving'. The image of elephants returned in the form of the elephants in the room, namely the global lack of access to effective contraception and safe, legal abortion. These are amongst the most important root causes of maternal deaths resulting from the complications of unwanted pregnancy. Gender equity is a precondition to end poverty. The Leading Safe Choices Programme (<https://www.rcog.org.uk/leadingsafechoices>) is a direct response to these challenges.

The ensuing panel discussion included the (much-needed) progress that has been made towards gender equity in medical graduates in high-income countries, but also the continuing dearth of women in senior leadership roles in healthcare and the related need to change long-held hierarchical values in order to embrace the effective use of the Safe Surgery Checklist. In some low-income countries, the Safe Surgery Checklist has opened the way for anaesthesia providers to have the confidence to discuss concerns about patients with surgeons.

Dr Philippe Mavoungou provided a thought-provoking discussion of equipment for use in low-income countries and the need for standards that ensure that such equipment is fit for purpose. Standards for low- and middle-income countries need to be enhanced, not reduced, in comparison with those for high-income countries.

Dr David Whitaker discussed the WHO's Third Global Challenge for Patient Safety, 'Medication Without Harm'. The primary themes of this challenge are:

- high-risk medications;
- polypharmacy;
- transitions of care.

Clearly, medication safety is a central concern in anaesthesia. The importance of labelling, and the concept of 'the Rainbow TrayTM' were noted. A story of the persistent efforts to inject a medication intravenously, when it is intended for oral use, provided a graphic illustration of the point that fools can be both persistent and very ingenious in executing unsafe medication administration.

'The WHO Perspective' was the title of the presentation by **Dr Walter Johnson**, a neurosurgeon who leads the Global Initiative for

Emergency and Essential Surgical Care (GIEESC) at the WHO. Dr Johnson pointed out that all of the WHO Sustainable Development Goals are linked to access to safe surgery and anaesthesia, reiterating that he knew he was 'preaching to the choir' that there is a substantial challenge in getting the message beyond the converted to those who have the capability of changing priorities for investment into global health priorities. Addressing the challenges identified by the *Lancet* Commission will depend on capturing the hearts and minds of those capable of the required investment.

Mona Guckian Fisher, President-Elect of the International Federation of Perioperative Nurses (IFPN), followed with a timely reminder of the importance of registered nurses as part of the team in the care of surgical patients in the operating room and on the wards. She noted that teamwork is key and that the Safe Surgery Checklist had been influential in helping nurses speak up when necessary. Mona highlighted the paradox that, although training and learning often occur in silos, we need to work in teams to ensure patient safety. She finished by noting that nursing is a noble profession and has a key role to play in addressing the challenges identified by the *Lancet* Commission.

Dr Mark Warner, President of the Anesthesia Patient Safety Foundation (APSF), began with the original mission statement of that organisation: that 'no patient shall be harmed from anaesthesia'. Inspirational initiatives by the APSF include a new focus on global health, including the translation of its newsletter (which is distributed to over 150,000 readers) into eight languages, and a proposed grant initiative to develop new patient safety scientists in and beyond the USA.

Professor Alan Merry gave the final presentation of the conference, returning to the point that, in this context, the role of collecting data is to drive improvement in outcomes for patients, globally. He argued that the six core metrics identified by the *Lancet* Commission should form the cornerstone of a wider framework of indicators. Substantial progress on measuring the professional workforce has been made with the WFSA's World Anaesthesiology Workforce Map (<https://www.wfsahq.org/workforce-map>), which has the capacity to support such a framework.

Returning to the ultimate objectives of surgery, he suggested including high-level indicators of outcome, such as life expectancy and patient-reported outcome measures, at the top of the framework to make the ultimate purpose of other indicators explicit. In relation to the 'three delays' identified by the *Lancet* Commission, he showed some measures of access that could potentially be modified to reflect the impact of these delays. Donabedian's triad of structure, process and outcome could be applied across a modification of the Institute for Healthcare Improvement's Triple Aim, such as that adopted in New Zealand, to emphasise equity and also value for money rather than the reduction of expenditure on healthcare. Returning to the core message of inappropriate variation in healthcare, he emphasised the importance of doing 'the right things' in the first place (i.e. treatments that are evidence-based and valued by patients) and then

of 'doing them right' (i.e. safely). He drew attention to the corrosive influence of corruption and advocated including measurements of this into the framework, in effect to shine a light on this important contributor to inequity in health outcomes.

Professors Alan Merry and Berend Mets closed the conference with a summary, concluding remarks and a heartfelt thank you to the Royal Society of Medicine and its anaesthesia section, the WFSA Secretariat, industry sponsors and the speakers and participants for contributing to the first ever WFSA SAFE-T Summit and expressed a commitment to plan for another Summit the following year.