Update in
Anaesthesia

Editorial

The WHO Surgical Safety Checklist

Errors in the operating theatre cost lives; a patient is given adrenaline instead of atropine and suffers a fatal cardiac arrest; severe haemorrhage complicates a hysterectomy – no blood has been ordered; the surgeon and anaesthetist leave a pack in the airway of a child – no checks were made, the child dies. Similar events have occurred in hospitals in every country in the world.

Around 230 million people undergo surgery every year. Of these, 10 million are for pregnancy related conditions and 60 million follow trauma.[1] Conditions for surgical and anaesthetic perioperative care vary greatly throughout the world, and mortality rates following surgery range between 0.4% and 10% in different settings. Direct deaths due to anaesthesia alone vary from around 1:185,000 in countries with well developed training systems and optimum facilities, but they may be as high as 1:150 in parts of the world where it has not been possible to achieve these standards.[2,3] Major morbidity following surgery occurs in 3 – 25% of patients being treated in a hospital setting, and results in unnecessary suffering, expense and possibly long term disability. It is recognised that many deaths and injuries are avoidable.

Many episodes that harm patients are caused by identifiable problems such as poor communication, drug errors and technical issues. The majority of these lapses in care are not intentional or due to carelessness, but result from human error. These problems will always occur, and we need to have robust systems in place to protect our patients.

How can we make surgery and anaesthesia safer? Good communication and theatre teamwork are vital. Checklists, protocols and other aide memoires can reduce the incidence of errors significantly, and at the same time improve the communication and team working between colleagues.[4,5,6] Teams that work well together and focus on the patient have better outcomes. Unfortunately, in many places hierarchies have been created and maintained that allow little opportunity for different professions to feel comfortable working with each other. Juniors are not often invited to challenge seniors; non-physicians find it difficult to question physicians, even if things are going wrong.

The WHO, through its initiative Safe Surgery Saves Lives, has developed guidelines for safe surgery that were launched in Washington on 25th June 2008. As a part of this initiative, the WHO has produced a Surgical Safety Checklist, reproduced in this issue of *Update*, along with the instruction manual for its use. Further information can be found on the WHO website, www.who.int, including the supporting evidence for the recommendations. The Checklist addresses key points in the patient's journey through theatre and is the result of a collaboration of more than 200 agencies, professional organisations and ministries of health involved in surgical care around the world. The WHO also recognises that there is very little published about outcomes from surgery in the developing world, and encourages hospitals to collect this data.

The Checklist is simple in its concept and describes checks in the perioperative pathway at three stages, prior to anaesthesia – the **Sign In**, prior to skin incision – the **Time Out**, and following surgery before leaving theatre – the **Sign Out**.

During **Sign In** the team checks that they have the correct patient, the consent is correct and the surgical site is marked. An anaesthesia safety check is performed to confirm details about the patient such as starvation and airway assessment, and that appropriate drugs and equipment are available and functioning for the anaesthesia required. In particular, a pulse oximeter is highly recommended for every anaesthetic and should be applied before induction of anaesthesia. This simple technology has the potential to save many lives.

The **Time Out** phase ensures the theatre team know each other by name and role, checks that all equipment is available and confirms the correct patient for the correct surgery. At this point both surgeon and anaesthetist describe any particular concerns about the patient or the proposed intervention. Any relevant imaging is checked, also whether antibiotics are required and have been administered.

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During **Sign Out** the final swab count, instruments and samples are checked, along with a discussion about the postoperative plan for the patient. The WHO believes, as do many healthcare organisations around the world, that use of the Checklist will improve surgical safety and encourage a systematic approach to perioperative care. During development many experts considered factors most crucial to patient safety and these have been included. Introducing change into the workplace is not always straightforward and it is advised that the checklist should be adapted to local circumstances. However, just a few minutes to use the Checklist for each patient will make a difference.

Anaesthetists from more than 100 countries read *Update in Anaesthesia*, many of whom work in the most difficult of circumstances, but the Checklist still has much to offer. The Checklist encourages a culture of team working and will challenge hospital managers to support anaesthesia, particularly in the provision of pulse oximetry.

In 2010, the football stars that play best as a team will win the World Cup in South Africa. Technical skills combined with effective communication, mutual respect and organisation will be key. Perhaps the greatest success of the WHO initiative will be if surgeons, anaesthetists and nurses can adopt the same approach, with safe surgery for each and every of one of our patients as our goal.

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News from the WFSA

A big 'thank you' to the editor of *Update*, for offering space to write about the WFSA. First of all I would like to congratulate the editorial team on the new look of *Update* and wish them well in their quest for indexing. This will be a very important step forward in the life of *Update* as a journal. Besides producing *Update*, the Publications committee has developed *Anaesthesia Tutorial of the Week* that is accessed via the World Anaesthesia Society website (www.worldanaesthesia.org) and will soon be available on the WFSA website (www.anaesthesiologists.org).

It is hard to condense the activities and role of the WFSA into a few lines so I will just touch on some highlights of our work. The WFSA is a society of societies, so if you are a member of your national anaesthesia organization, then you are automatically a member of the WFSA. There are now 122 member societies. Ethiopia, Georgia, Laos, Libya and Rwanda were admitted at the World Congress in Cape Town in March 2008.

The objectives of the WFSA are to make available the highest standards of anaesthesia, pain treatment, trauma management and resuscitation to all peoples of the world. These goals are achieved through the work of the WFSA standing committees – Education, Publications, Safety and Quality – all of whose reports are available on the website. The education committee supports training of young anaesthesiologists in WFSA programmes in Chile, Colombia, India, Israel, Romania, Thailand, Tunisia and South Africa. Rotations are available in cardiac, general, obstetric and paediatric anaesthesia, in intensive care and in pain management. In addition, teachers are available for regional and national congresses and workshops.

The Safety committee has produced guidelines to the practice of anaesthesia. It is recognized that, for some, these will be challenging goals to achieve. The Global Oximetry Project is well underway and we hope to be able to expand this with support from the World Health Organization (WHO). Trials of pulse oximeters are ongoing in India, the Philippines, Uganda and Vietnam. Besides introducing the oximeter, all the appropriate education is provided to ensure that the end users are comfortable with the equipment and knowledgeable about the implications of its findings.

Anaesthesia has been an important participant with the WHO in the launch of its Safer Surgery Saves Lives initiative. It is recognized that without safe anaesthesia there will be no safe surgery. The WFSA will be working closely with the WHO to improve anaesthesia safety everywhere.

Over the course of the next four years, the WFSA will take the opportunity provided by this forum to highlight some of our activities in detail. For further information, please look through our website and feel free to contact us at wfsahq@anaesthesiologists.org.

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