

WFSA Newsletter – January 2011

Update on the Global Oximetry Project

The idea of providing oximeters to those in need first came about at the World Congress in Paris in 2004 when members of the Safety and Quality Committee were discussing ideas around improving patient safety. With the assistance of the Association of Anaesthetists of Great Britain and Ireland (AAGBI) and GE Healthcare, who provided the oximeters, they developed projects in 4 countries – India, Philippines, Uganda and Vietnam. They found that there was a huge need for oximeters, and that significant education was required in how to use them and how to respond to the information provided by them. (Anaesthesia 2009; 64:1051-1060).

At the same time, the WHO was developing its Safe Surgery Saves Lives initiative, led by Dr Atul Gawande of the Harvard School of Public Health and a surgeon at the Brigham and Women's Hospital in Boston. This resulted in the provision of a surgical checklist. Studies showed that using the checklist, no matter what resources were available, resulted in a reduction in surgical morbidity and mortality. (N Engl J Med, Volume 360(5):491-499, January 29, 2009).

The use of a pulse oximeter was included as one of the points on the checklist because of the importance of this form of monitoring to patient safety, but also because it was recognized that a significant portion of the anesthesia world lacked pulse oximeters. In October 2008, WHO gathered together interested parties such as the WFSA, Harvard School of Public Health, procurement experts, industry and others. This group embarked on a project to provide low cost pulse oximeters to anesthesiologists in need of this technology to support the care of their patients. Teams were formed to determine the specifications of a suitable oximeter, to set up a procurement process, to secure financing and to develop educational materials.

All have done their work admirably. The chosen oximeter is ISO and CE certified, with all of the qualities and safeguards required. It comes with extra features, such as long-lasting batteries, which make it suitable for use in austere environments. The successful manufacturer is able to provide this state-of-the-art oximeter at the incredibly low cost of \$250 US. This should enable governments and hospitals in low and middle-income countries to purchase oximeters for a fraction of their usual cost. We also hope groups, organizations and even individuals, will donate them to those in need.


The project has gathered new partners such as AAGBI and Smile Train. As well, many people have donated their expertise in areas required by such a huge undertaking, for example management, branding, law and public relations. These are people outside of the anesthesia, and even the medical, world. They are contributing because they believe in the value of the project to improve patient safety during anesthesia and surgery.

Research done as the project developed shows that about 77,000 operating rooms in the world lack pulse oximetry. This equates with about 35 million patients per year having


anesthetics without an oximeter (Lancet 376 (9746), 1055-1061, Sept 2010). In addition, there is a lack of oximeters in Recovery Rooms, Obstetric Units, Neonatal Units or Intensive Care Units. The potential for improving patient safety with these devices, supported by appropriate education, is enormous.

The education team has created materials for use in self-learning or for teaching. Each pulse oximeter that is distributed will have a CDROM with it which will include materials on the Surgical Safety Checklist and the oximeter. These include a manual describing oxygen transport, use of an oximeter, an algorithm on what to do when the oxygen saturation is falling, two power-point presentations, scenarios for use in teaching, quizzes and a prize-winning video made especially for this project by Dr Rafael Ortega, an anesthesiologist at Boston University. All of the material has been produced by us in six languages – English, French, Spanish, Chinese, Russian and Arabic. It will also be available free of charge from the WHO website. The content and quality of this material makes it relevant to any anesthesia provider – not just those in economically constrained settings.

We are calling on all of our member societies to assist us with the teaching programmes.

We are pleased to announce that this project will shortly be set up as a not-for-profit organization called , with a board led by Dr. Atul Gawande and including representation from WFSA. This will allow us to develop a sustainable structure, generate funds for the donated distribution of oximeters and target on-site education programmes. Importantly, it will allow the WFSA to continue to promote our anaesthesia mission.

We will soon have a website dedicated to this project where, for just \$250 including delivery costs, eligible facilities can purchase oximeters for themselves, and donors can buy on their behalf, specifying the recipient if they wish. In time we will maintain a database of global need, so you can see exactly how we are working to target the oximetry gap, and where donations are needed next.

 aims to distribute 5000 oximeters during 2011, and 12,000 in the first two years, through a combination of sales and donations. If we are to target the 70 000 plus operating rooms worldwide without oximeters, we need your help.

If you would like to donate funds for the supply of oximeters where they are most needed; if you know of sites and anaesthesia providers who are working without pulse oximeters; if you are able to help us with coordinating distribution; if you would like more information about the project please contact lifebox@anaesthesiologists.org.

Please also watch the WFSA website, www.anaesthesiologists.org, for updates of the work and our  website, www.lifebox.org, which will be accessible early in 2011.

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