



## **“Issues in the Delivery of Safe Anesthesia”**

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Anesthesia safety has come a long way in the US and other developed countries. Thirty years ago, undergoing an anesthetic was often considered more dangerous than the surgical procedure itself. In the mid 1980s, anesthesia leaders put together a system of improved anesthesia care based on lessons learned from aviation, nuclear power and other potentially high-risk organizations. Over a period of ten years, the death rate attributed to general anesthesia in developed countries dropped from a reported one in 5,000 to approximately one in 200,000.

Unfortunately, anesthesia safety remains a significant problem in developing countries, a problem which is growing as the surgical case load increases world wide. The anesthesia-associated death rate is estimated as 100 to 1,000 times that of developed countries and has been reported as high as one in 150 in one sub-Saharan country in Africa. The mortality associated with anesthesia in developing countries is often due to mishandled airway and breathing problems and inadequate resuscitation with intravenous fluid and blood products. Approximately 50 percent of these deaths occur in obstetric patients, which compounds the tragedy through the loss of a mother to any surviving children.

What has led to the unacceptably high rate of avoidable anesthetic related deaths in developing countries? A lack of functioning anesthesia equipment, monitors and drug supplies is certainly an important part of the problem and will only be corrected if recognized as something that needs to be funded. A significant part of the problem is due to the severe shortage of adequately trained and supported anesthesia personnel in developing countries.

In many countries in Africa and Asia only a handful of trained physician anesthesiologists exist. They are often responsible for the clinical, administrative,

and teaching functions of the hospital while working under demoralizing conditions of poor financial and professional support. It is easy to understand that they have little time for training and supervising the non-physicians who give most of the anesthetics in these countries. This is where organizations such as Health Volunteers Overseas can make a significant contribution to the safety of patients. Volunteer anesthesiologists and nurse anesthetists can help through direct teaching of students, design of anesthesia teaching programs and contributions of teaching materials. Volunteers often help relieve the burden of teaching from the local providers, as well as raise the morale of health care workers. The introduction of country-appropriate standards and protocols can also make a lasting contribution.

The tragedy of a patient dying as a result of lack of oxygen or bleeding to death due to an inadequately trained or equipped anesthesia provider must be prevented in the future. HVO's volunteers donate their time and energy every year for this crucial and worthwhile goal.

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