

Safety Issue in Anesthesia in Bangladesh

Introduction: There is widespread agreement that the medical profession has much to learn about safety and addressing adverse events in clinical practice. In UK and others take initiative such as medical audit, clinical governance & the National Reporting and Learning System have failed to transform the management of iatrogenic adverse events. Anesthesiology is a high-risk specialty as compared with other specialties in medicine. Anesthesiologists are responsible for patient safety during operations. The safety in anaesthesia is based on several factors. In spite of all facilities during anesthesia and surgery there are about death in about 1 per 10,000 anesthesia and many other patients suffer serious and costly nonfatal injuries such as permanent neurologic damage. In Bangladesh, reports of anesthetic accidents are not generally published for lack of any forum that could discuss it or lack of legal protection or otherwise, it becomes public knowledge. There is no database, no useful feedback from the Govt. commissions that investigate such accidents. Anesthesia seems to be an area where outcome is only minimally affected by medical knowledge but greatly affected by factors such as attention, concentration, organization and ability to function as a team.

Anesthetic workload in Bangladesh: Bangladesh has a huge population (about 160 million) with limited area and resources. Bangladesh has made great progress in addressing the issue of prevention of communicable diseases, reduced the maternal and infant mortality rate and life expectancy has risen steadily. Among the non-communicable disease surgical patient is dramatically increased in both urban and rural areas. Surgical treatment starts from Upazila health complex (primary health care centre) to tertiary level hospital. Bangladesh health system has 30 – 50 bedded Upazila health complex (N=460), 100 – 250 bed District or sador hospital (n=64), Medical college hospital (N= Govt. 32, Non

Govt.76), specialised hospital (cardiovascular, neuroscience, thoracic, ophthalmic, orthopaedic, paediatric, cancer, kidney and urological etc), more than 2000 private clinics and 10 corporate hospital. Most of normal obstetric cases, some of trauma and general surgery were done in the primary and secondary level hospital. Near about 5000 routine and emergency operations have been performed every day. Now in the whole country a substantial number of General and Regional anesthesia are being administered by anesthesiologists either under supervision or independently. But growing number of procedures are being performed in extremely ill equipped operating rooms still now. Number of trained, qualified and skilled anesthesiologists are limited in Bangladesh which is essential component for safe anesthesia. Work load of anesthesiologist is very high with a limited remuneration. There are other many factors threatening patient safety in the operation rooms like system failure, human error and patient's physical factors.

Why safety is more important in anesthesia?: Safe surgery is not possible until some amount of safety regarding patient's insensitiveness during the procedures are being assured. In Bangladesh, anaesthesia has had its twists and turns, but safety, nevertheless was discussed and sought previously by the people. Increased health awareness and expectation of cure by surgical treatment may lead to increasing demand of safe anaesthesia by both patient and surgeon. Other important point is medico legal aspect.

Action plan for safe anesthesia in Bangladesh: Bangladesh Government, different local and international organization take an important role for providing safe anesthesia in Bangladesh.

Role of BSA: Bangladesh society of anesthesiologist is working from its beginning to maintain "Patient safety must remain the highest priority".

- * Encourage policy change that will increase access to safe anaesthesia, including the provision of vital equipment and trained staff, that will ultimately save lives.
- * Limit the anesthesia providers within physicians
- * Continue scientific seminar and training program for safe and quality anesthesia
- * Theme of many conferences were related to safe and quality of anesthesia
- * Encourage young doctor to do post graduation in anesthesia
- * Diversity of anaesthesia practice
- * Insist the government to create more post and arrange extra remuneration and provide more facilities because anesthetist provides a more stressful job.
- * As this year's World Anaesthesia Day the Bangladesh Society of Anaesthesiologists (BSA) has partnered with WFSA, the European Society of Anaesthesiology (ESA), Nigerian Society of Anaesthetists (NSA), South African Society of Anaesthesiologists (SASA), international NGO Lifebox Foundation, and the G4 Alliance, to send the SAFETY Campaign 'Toolkit' to many thousands of anesthesia providers and medical professionals around the world.

Role of WFSA: International standards for safe anesthesia had been advocated.

- International Standards for a Safe Practice of Anaesthesia 2010 developed by the *International Task Force on Anaesthesia Safety* and adopted by the *World Federation of Societies of Anaesthesiologists (WFSA)*

HIGHLY RECOMMENDED

- Minimum standard that would be expected in all anesthesia care for elective surgical procedures
- "Mandatory" standard has been developed their own protocols by various countries & regional bodies. It is also depends on human resource development, facilities, equipments and supplies, documentation and reporting and audits.
- The SAFETY Advocacy and Campaigning Toolkit has been produced by the WFSA. It is

designed for anesthesiologists and other medical professionals to better understand the global crisis in anesthesia and surgical care and reflect on how they can help support and improve the global drive to avert the crisis.

- Provide post fellowship training for Bangladeshi anesthesiologists
- SAFE obstetric and pediatric course in Bangladesh
- Life box training and distribution pulse oximeter in Bangladesh

Role of WHO : Enrolled the surgical safety check list which is more related to anesthesia safety.

Strengthening emergency and essential surgical care and anesthesia as a component of universal health coverage, WHO Resolution approved at the 68th World Health Assembly on 22nd May 2015.

Role of Bangladesh government : Government is the main authority to ensure the safe and quality of anesthesia. Now Government understands that anesthesia is an essential component for safe surgical treatment. So they try to increase the number of anesthesiologist by shortcut way. But there is no shortcut way to make an anesthesiologist who provide safe and quality anesthesia. Present number of anesthesiologists in Bangladesh are 1250 qualified and about 600 are 6 month to 1 year trained and most of them are posted in rural area where anesthetic facilities are inadequate. So there is always chance of increased mortality and morbidity.

Bangladesh government made a separate wing for quality and safe patient unit in the Ministry of health and family welfare. This wing try to establish WHO surgical check list in every hospital for anesthesia and surgical safety. Government tries to develop infrastructure and provide instrumental support from primary to tertiary level hospital for safe anesthesia. They have a plan to increase the number of qualified anesthesiologists and to provide special remuneration for them.

Post graduate education: Change the post graduate anesthesiology education program is essential for improvement of quantity and quality of anesthesia which is the main point of safe and

quality anesthesia. There is a two years in course training program for Diploma in Anesthesiology, five years in course training for MD residency and four years training for Fellowship.

Obstacle: In spite of all still there are limitations of providing safe anesthesia in Bangladesh. About 25 % people do not have access to safe and affordable anesthesia and surgical care when needed. Factors leading to an anesthesia mishap in Bangladesh are: shortage of skill manpower, absent or improper anesthesia machine and monitor, overload or fatigue, OT environment and lack of vigilance.

Conclusion :

We should try to maintain the international standards for safe anesthesia by exchanging the technology and knowledge within region and abroad. We should aware all about the importance of safety in anesthesia and will be seeking to make it easier for anesthesia providers to raise their voices hard.

(JBSA 2016; 29(2):35-37)

Debabrata Banik

Chairman

Dept. of Anesthesia Analgesia & Intensive Care Medicine, Bangabandhu Sheikh Mujib Medical University
Shahbag, Dhaka

References :

1. Guidelines for safety and quality in anaesthesia practice in the European Union: SECTION and BOARD OF ANAESTHESIOLOGY¹, European Union of Medical Specialists Working Party on Safety and Quality of Care; Mellin Olsen, J.^{*}; O'Sullivan, E.[†]; Balogh, D.[‡]; Drobnik, L.[‡]; Knape, J. T. A.[§]; Petrini, F.[%]; Vimlati, L.^{**} *European Journal of Anaesthesiology*: June 2007 - Volume 24 - Issue 6 - p 479–482 doi: 10.1017/S0265021507000
2. Safety Standards in International Anaesthesia | AAGBI, <https://www.aagbi.org/.../international-standards-anaesthesia>. The World Federation of Societies of Anaesthesiologists (WFSA) adopted the International Standards for the Safe Practice of Anaesthesia in 1992, and revisions...
3. International Standards for a Safe Practice of Anesthesia 2010 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2957572/>. 21 Sep 2010... These standards are recommended for anesthesia professionals throughout the world. They are intended to provide guidance and assistance...
4. Safety in Anaesthesia - The Royal College of Anaesthetists <https://www.rcoa.ac.uk/clinical-standards-quality/safety-anaesthesia>. Guidelines and standards are essential to establish and maintain good anaesthesia practice and high quality service, reflecting the changing UK healthcare...
5. Hossain R *Review Article* : Current status of health sector in Bangladesh. *Bangladesh Med J. 2015 Jan; 44 (1)*
6. Majumder MAA. World Health Statistics 2011: How does Bangladesh compare with other South-East Asian countries? *South East Asia Journal of Public Health. 2011;1(1)*
7. Shakeel Ahmed Ibne Mahmood. Health Systems in Bangladesh. Editorial. *health systems and policy research. 2012;1: 1*
8. Government of the People's Republic of Bangladesh, Ministry of Health and Family welfare. Health related millennium development goals. *Health bulletin, June 2012. Dhaka: management information system, Directorate General of Health System, 2012.*
9. The millennium development goals and beyond 2015. Available at: <http://www.un.org/millenniumgoals/>