Risk management is the mainstay of anaesthesia and critical care.

Anaesthesia has its risks much more than many other specialties in medicine. If we go back in history when ether or chloroform was used as a sole anaesthetic drug, patients were taken through the stages of anaesthesia which were classified by Guedel as stage 1 to 4. The anaesthetic plane was considered to be stage 3 plane 3 where as death was classified as stage 4. This shows how close to death these patients were taken during anaesthesia. Today the situation is very different with the introduction of balanced anaesthesia. With the advent of intravenous induction agents, inhalational agents and the use of muscle relaxants and analgesics we now achieve sedation, analgesia and muscle relaxation in anaesthesia by the use of a multitude of drugs with specific actions having wide therapeutic ratios.

In intensive care the patient is already in system failure. We use the same principles of anaesthesia to keep these patients alive by system support using artificial means to do so, whether it is a multitude of drugs or instruments. The risks to the patient’s life are measured daily and treatment changed accordingly thereby minimizing the risks and ensuring patient safety and recovery.

With all these developments anaesthesia and intensive care have been made very safe. The result is more and more patients with varying degrees of systemic illnesses are undergoing anaesthesia. This is also true when extremes of life are considered, as we now not only anaesthetize septuagenarians but also the foetus in utero. As a result risk stratification and optimal management is of utmost importance if we are to avoid morbidity and mortality associated with anaesthesia and intensive care. Ensuring safety is good clinical governance and this can only be achieved with education, adequate training, formulating guidelines (health sector development project of Sri Lanka), monitoring critical incidents and assisting the health ministry with drug and equipment procuring. Availability of well trained manpower in hospitals that have both operative and intensive care facilities should be our goal towards achieving clinical excellence.

Risk management should start from risk awareness. When a patient is admitted to hospital prior to surgery or for intensive care we must be aware of the risks the patient faces. The infrastructure itself plays a vital role. We must ensure that proper facilities are available for operative delivery and intensive care. If not we are subjecting patients to danger which they are not aware of.

It is the duty of the anaesthetist to ensure that the patient is assessed before surgery, risks identified, appropriate action taken to minimize such risks and that facilities are available to safely take the patient through the anaesthetic. In intensive care the problems need to be identified, system failures detected and system support provided with the minimum of risks. Once the patient is seen in the ward before surgery or in a preoperative clinic as in the case of day case surgery, it is important to communicate with the surgeon and the relatives if there are risks and while trying to minimize such by adequate preparation should also make them aware of their clinical condition and the implications.

We need to tailor our anaesthetic techniques according to the patient’s ASA status and the surgery. Our aim in doing so is to minimize the risks identified at the pre operative evaluation as much as possible. Such preparation is necessary even in intensive care. We need to weigh the
benefits and risks of system support, invasive monitoring, and prior planning when transferring patients to other units in hospital such as radiology, operating theatre and dialysis unit.

Preventing injury during anaesthesia and intensive care is another aspect that we need to keep in mind during treatment. In both intensive care and anaesthesia we face such situations all the time. During positioning of patients injuries to the nerves, ligaments and muscles can occur, while intubating patients there can be injuries to the mouth, lips, dentition, and tongue. Unless we are aware of these injuries and take utmost care to avoid them the safety of the patient cannot be guaranteed.

Another important aspect of risk management is evaluation of outcome. This is important for two reasons one is where an unpredicted risk arises to the patient’s life and we safely take the patient through it without morbidity or mortality. Second is where the risk is predicted and measures are taken to reduce the risk to a minimum so that patient recovers completely. Such cases need to be reported and analysed as teaching material for the formulation of safer systems. The hospital morbidity and mortality meetings are a good way of dissipating such information to the local community. Publications in medical journals and the use of the electronic media are two ways in which such knowledge can reach all corners of the island.

References

Shirani Hapuarachchi*  
Consultant Anaesthetist, Neuro Surgical Department, The National Hospital of Sri Lanka  
Corresponding author. E – mail: hapu@sltnet.lk