

## Paediatric anaesthesia: a risky business?

The definition of risk is “the chance or possibility of danger, loss or injury”.<sup>1</sup> Assessing risk in paediatric anaesthesia depends on the angle from which the problem is approached: the patients and their parents, doctors, hospital managers, policy makers or insurance companies. For the child (the patient), the risks involve a variety of factors, including the medication choices that the anaesthetist makes, the potential for neurodegeneration (high on the risk list for neonates and infants), whether the anaesthetist is satisfactorily qualified and experienced to provide adequate perioperative care so that the infant wakes up safely, and monitoring of the operation in accordance with local and international safety standards of care.

Parents will have signed consent for the operation and anaesthetic and will hope that they have correctly understood what is involved, or conversely they may not have an adequate idea of what is entailed. They are entrusting their baby to the care of someone who they may have only just met, and face the risk that this individual may not be as competent or caring as they would like.

From the anaesthetist's perspective, *in loco parentis* is a considerable responsibility that not all are able to assume. Providing anaesthesia care to neonates, infants and children in both ideal and difficult circumstances requires an obsessive-compulsive approach to the patients, the perioperative management of each patient and the preparation of medications. All aspects of paediatric anaesthesia are unforgiving of errors. This is evident by the emphasis in the literature over the past year on critical adverse events and on safety in the profession. Incorrect drug dosages and dilutions, inadequate oxygenation, lack of knowledge of congenital anomalies and syndromes, as well as insufficient teaching and training, are all risk factors for anaesthetists and their patients. Does having one's own children impact positively or negatively on one's work? Knowing the risk profiles in paediatric anaesthesia is a starting point for the reduction of risk.<sup>1</sup>

Coping with a death on the table when the patient is a child presents an emotional challenge that requires a departmental and institutional policy. Mortality is not increased in operations that are performed by teams after a death on the table, but survivors have longer stays in intensive care and

hospitals.<sup>2</sup> There are no local or international guidelines or consensus on what should happen at a time like this, but Bacon et al provide us with a very useful approach to this devastating incident.<sup>3</sup>

From the aviation and Formula One motor racing industries, medicine in general, and anaesthesia in particular, has learned a considerable amount about risk and safety, and about factors which contribute to morbidity and mortality in the perioperative setting.<sup>4</sup> Despite this information, the safety records that these two bodies have achieved have not yet been achieved by anaesthetists. Perhaps things would change if anaesthetists were injured or died with their patients.

However, the need to measure quality of care and perioperative safety is essential for good patient outcome. Over the past few years, the international literature on this subject<sup>1,4-7</sup> has borne testimony to the need for the paediatric anaesthesia community in South Africa to audit, monitor and then change its practices accordingly, and to do this as a national and united professional group. What is the size of the problem of perioperative morbidity and mortality in children in South Africa? Developing a culture of safety is crucial in order for patient safety programmes to work.<sup>5</sup> Anaesthetists are ideally positioned to lead in the theatre environment. With 2012 being the Year of Safety in Paediatric Anaesthesia, paediatric anaesthetists in Europe held a meeting as the First International Assembly for Pediatric Anesthesia, when “Safety knows no barriers” was the theme. “Patient safety requires a commitment by practitioners of all kinds working cooperatively with hospital leaders, funders, governments, researchers, specialty societies and most importantly, the public, to create environments where patients can be certain that the care that they, their family member or child receives will not be a source of harm”.<sup>5</sup>

I challenge us all to address this problem in our country!

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*Note:* The entire issue of Paediatric Anaesthesia 2012;22 is highly recommended.