HOT TOPIC

Pre-assessment clinics; Should every child have access to a consultant anaesthetist?

SUMMARY OF KEY POINTS:

- Perioperative medicine to improve surgical care is a key vision of the RCOA
- The RCOA has recommended guidelines for paediatric pre-assessment services
- Consultant led paediatric pre-assessment can be cost effective, reduce cancellation rates and improve patient and parent satisfaction

REVIEW OF EVIDENCE

The Royal College of Anaesthetists has recently produced a vision document related to perioperative medicine being the pathway to better surgical care (1). Although the emphasis is towards elderly, higher risk patients, this is equally pertinent to higher risk patients at the younger end of the spectrum; and relevant for optimal care and enhanced recovery for all.

Perioperative care starts in pre-assessment, and the pre-assessment process in children is important for a variety of reasons. Although the majority of children we anaesthetise are ASA 1 and 2, we are now caring for an increasing complex population related to neonatal and paediatric medical and surgical advances. In addition, the consent process requires consideration to ensure shared decision making between families and healthcare professionals, and management of perioperative anxiety and its consequences.

The primary reason for pre-assessment is to identify risk, and modifiable factors to mitigate risk prior to surgery. This is as relevant to children as adults. Many children have medical complexities that require thought and investigation prior to 'the day of anaesthesia', including ex-prematurity, metabolic, neuromuscular, genetic syndromes, repaired/palliated cardiac defects, obesity and OSA. The pre-assessment process is an opportunity to gather information, seek advice and enable multidisciplinary decision making to optimise existing conditions (2). The decision to refer the patient to another centre, to modify the surgical procedure, to ensure an experienced paediatric consultant anaesthetist is available, to have the patient first on the list or modify medications; are all important management decisions that cannot be made on the day of surgery and may help to optimise care and avoid cancellation.

In addition to medical issues, there are many behavioural considerations. With an increasingly acknowledged body of interventions that can assist in the psychological preparation of children for anaesthesia and surgery, pre-assessment is well placed to stratify children and families towards pre-admission interventions and/or management plans for the day that may be beneficial, particularly for children with more complex behavioural needs.

Pre-assessment has a role in conveying information to the patient, and in the case of children, additionally their parent/s or guardian. Many small interventional studies looking at information leaflets, videos, nurse and anaesthetic pre-assessment have shown increased satisfaction in a service. However, discussion of risk is an additional important process. Although we consider morbidity and mortality in relation to anaesthesia and associated procedures as relatively low, when incidents do occur, they are by nature often life threatening or altering. The APRICOT study recently demonstrated severe critical incidents in the paediatric population in Europe as 5.2%, with risk related to age, medical history, physical condition and years of experience of anaesthetic provider (3). The consent process for anaesthesia requires documented discussion on risks and benefits (4) but we do not have a written consent process, in contrast surgical consent. Current surgical practice is to undergo the consent process on multiple occasions prior to 'the day of surgery', often with the consent form completed in advance and re-signed on the day. This disparity arguably becomes more pertinent when in certain

scenarios the anaesthetic is riskier than the surgery (or procedure) being undertaken, not uncommon in paediatric practice. Current anaesthetic guidelines on consent state that information should be given about anaesthesia and its associated risks as early as possible (although this may be in written information format), and that consent is an ongoing process that may require repeated discussion (4). We should be providing evidence-based information about options, outcomes and uncertainties and enabling shared decision making for families in a timely fashion (2). This becomes even more difficult when there are communication issues such as language barriers to consider, without adequate 'on the day' translation services.

Guidelines for the Provision of Anaesthetic Services state that children should ideally attend a pre-op clinic staffed by nurses experienced in pre-assessing children. This service should be supported by an anaesthetist and have a nominated medical lead. There are minimum physician staffing recommendations per 1000 patients including one dedicated consultant session and one high risk clinic (5). It is anticipated that there is a wide range of variation in practice throughout centres in the country, many of which may not meet these requirements currently. Different centres from district general hospitals, to tertiary referral centres will have different requirements from a pre-assessment service, however in a political climate of centralising some paediatric services, pre-assessment in many ways becomes increasingly key. In combination with increasing volumes of complex paediatric pathology, influenced by many factors including advancing paediatric, neonatal and surgical care, it is not always possible to treat all patients in tertiary referral centres. Thus, the pre-assessment stratification process becomes increasingly pertinent, and many cases may present opportunities for centres to collaborate in thoughts and discussion and perioperative plans. Although in many cases elective ASA III patients should be referred to a tertiary paediatric centre (5), it needs to be borne in mind that complex children present to local hospitals, and so a degree of experience and competence needs to be maintained (5). Improving anaesthetic communication between networks through pre-assessment could be a key way to enable this.

We need to be cautious about resource management within the NHS, and concerns may be raised as to the cost efficiency of paediatric pre-assessment services. Birmingham Children's Hospital recently conducted a cost benefit analysis of a pilot project which set up a consultant anaesthetist supported paediatric pre-assessment process (6). They demonstrated savings to the trust, as despite the cost of setting up and running the service, there was a dramatic reduction of cancellation rates from 26% to 0.5%. In addition, the patient/family impact both emotionally and financially for a cancelled procedure cannot be underestimated, and savings in this regard can only improve the overall patient experience and improve patient care (6).

Conclusions

Hospitals should invest in a robust and all-inclusive pre-operative assessment process for paediatric patients that is clinician led. This is supported in best practice guidelines from the Royal College's and is increasingly being supported from a heath economics perspective. It is unlikely to be possible, or indeed necessary, for all patients to be seen before the 'day of anaesthesia' by a consultant anaesthetist, however appropriate referral pathways and access should be available for all.

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