

EPIDURAL INJECTION SAFETY – 16 SEPTEMBER 2011

Recent and continuing articles in the media about epidural safety have prompted the Royal College of Anaesthetists (RCoA) to provide the following statement. As epidurals are used widely across the UK for adults and children, we have prepared this statement in partnership with a key contributor to patient safety in this area - the Association of Paediatric Anaesthetists of Great Britain and Ireland (APAGBI).

(A useful reference for information about epidurals is at - <http://www.rcoa.ac.uk/index.asp?PageID=1499>.)

At the outset we would wish to stress that any incidence of patient harm is a tragedy which clearly distresses patients and their families, and we would highlight that such events also impact heavily on healthcare workers whose primary desire is always to ease suffering and help patients.

Epidural analgesia is used to provide pain relief after surgery and has been shown to be very effective. Overall the risks associated with their use in children appear to be very low and the incidence of critical events is broadly similar to that of techniques with intravenous opioids (morphine like drugs) (Ref: Morton NS Errera A. APA national audit of pediatric opioid infusions. *Pediatric Anesthesia* 2010; 20: 119-25). To quantify the risks associated with epidural analgesia in children, and to provide patients with better information on the procedure, a national study of 10,000 patients in children's hospitals was conducted over a 5 year period (reporting in 2007) - <http://onlinelibrary.wiley.com/doi/10.1111/j.1460-9592.2007.02230.x/pdf>. This is in line with other European surveillance studies in children. In addition, the largest ever prospective study into the major complications of epidurals and spinal anaesthetics was published by the Royal College of Anaesthetists in January 2009; the study was widely publicised and known as National Audit Project number 3 (NAP3). It concluded that previous studies over-estimated the risks of severe complications of these procedures and that the estimated risk of permanent harm (lasting more than 12 months) following a spinal anaesthetic or epidural is lower than 1 in 20,000 and in many circumstances the estimated risk is considerably lower. It is important that the results of NAP3 are taken in context and the executive summary provides the appropriate reference - http://www.rcoa.ac.uk/docs/NAP3_Exec-summary.pdf.

The projects showed that in the vast majority of cases epidural injections delivered in the UK are both appropriate and safe for the management of pain. However, the safe delivery of epidural analgesia is a complex process, requiring not only expert administration but dedicated management by medical and nursing staff with appropriate training in the immediate period after insertion and throughout the time an epidural is in place (which may be several days following major surgery). This care and vigilance is essential for epidurals to provide safe and effective pain control for patients of all ages and national guidance has been updated for this - <http://www.rcoa.ac.uk/docs/EpiduralAnalgesia2010.pdf>.

Both the children's and adult projects on regional anaesthesia demonstrated the advantages of collaborative working across hospitals and this has prompted many healthcare organisations and professional bodies to review local protocols and guidance for safe epidural delivery. Where necessary, they have been updated and re-issued.

We acknowledge epidural injections are a specialised procedure and not without risk; an RCoA patient information leaflet explains this - http://www.rcoa.ac.uk/docs/Risk_11nerve-spinal.pdf. However, although NAP3 showed epidural incidents are very rare and reducing, we are not complacent. Healthcare professionals, together with patient representatives, will continue to seek safety improvements in the administration of epidural injections to reduce this figure still further.

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