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TITLE PAGE

Title: ESPA Pain Management Ladder: Caudal Clonidine and Cost/Benefit Considerations

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Sir,

We read with interest the work by Vittinghoff and colleagues(1) on the creation of guidelines for postoperative pain management in children which aims to “guide best practice” through expert consensus. The creation of a framework for improvement is laudable and may prove useful to lower-resource institutions as they seek to maximize the patient benefit obtained from any increase in funding. Improving patient outcomes is the essence of medicine. However, analgesia, while important, must always be weighed against patient safety. We (Drs. Galante and Haydar) have previously reported severe adverse events with the use of epidural clonidine in young infants in this very journal. The safety of caudal clonidine in infants remains unproven(2). Vittinghoff et al recommend its routine use in pyloromyotomy, a disease of infancy that itself may carry apnea risks due to metabolic alkalosis. Upon re-review of the literature, we were unable to find retrospective or prospective data supporting epidural clonidine in infants < 6 months old. With multiple reports of harm and no proposed benefit apart from prolonged analgesia, we feel that caudal clonidine is inappropriate in patients under 6 months of age and especially for those at risk for apnea. For over a decade these risks have been raised repeatedly, and the burden of proof is on those who recommend it to demonstrate its safety prior to its recommendation for widespread use. These guidelines should therefore be immediately amended, along with the removal of the recommendation for routine intraoperative opioid use.

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Similarly, these guidelines propose a ladder whereby more expensive medications and technologies, such as intravenous acetaminophen or ultrasound-guided regional anesthesia, are assigned to higher rungs thus suggesting better outcomes. However, for many of the examples given, available data do not support improved analgesic efficacy with higher rungs compared to lower rungs. For example, for pyloromyotomy, we are not aware of any data demonstrating improved outcomes with rectus sheath block as compared to caudal analgesia. Similarly, for circumcision, recent data published in this very journal show no difference in outcome with ultrasound-guided penile block as compared to a landmark-based approach. In addition, while clonidine increases the duration of epidural analgesia, its efficacy in peripheral nerve blocks has not yet been well demonstrated.⁽³⁾ All elements on this ladder should aspire to elevate patients to higher levels of analgesia and safety. As it currently stands, several of the regional anesthetic recommendations in this ladder are not evidence-based, occasionally indicate increased complexity and cost without benefit to the patient, and ignore the suggestion that earlier use of ultrasound, if available, may be beneficial in the pediatric population given the evidence that use of ultrasound increases block success and duration while decreasing the risk of vascular puncture and local anesthetic systemic toxicity for certain regional blocks in adults.⁽⁴⁾ We therefore propose that the level of evidence for each recommendation should be added to this manuscript.

In closing, we would also caution against promoting the description of pain as “The Fifth Vital Sign”. In the United States, experts suggest that this campaign may have unintentionally directly contributed to the current opioid epidemic by promoting administration of opioids in hospitals and prescription of opioids after discharge, and thus, this designation is no longer supported by the American Medical Association, the American College of Surgeons, the American Academy of Family Physicians, The Joint Commission, and the Centers for Medicare and Medicaid.⁽⁵⁾

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