

Nasogastric Tube Placement Bundle Using Anxiolysis and Multimodal Analgesia

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Introduction: Insertion of a Nasogastric tube (NGT) is a requirement for numerous pediatric hospital admissions. Placement of a NGT is listed amongst the most painful and most uncomfortable procedures routinely performed on conscious pediatric patients. The North Carolina Children's Hospital NGT bundle combines age and weight appropriate anxiolysis, with topical analgesia, for an improved procedural experience.

Discussion:

The Pediatric Pain Sedation and Consult service (PSC) operates in a 150-bed children's hospital within a large academic center. After requests to the PSC service for a General Anesthesia or Moderate Sedation for the placement of NGTs, a thorough review of current practice was performed. Small doses of benzodiazepines (lorazepam) or opioids (morphine) were given with no local analgesia (lidocaine). Pediatric patients were often held down without proper preparation. The standard practice was often non-uniform and traumatic to both the parent, patient, and care provider.

Local analgesia for NGT placement is used in adults as a standard practice. The concern for lidocaine in pediatrics is lidocaine toxicity that may present as cardiac arrhythmias, dizziness, or seizures. We discuss the appropriate non-toxic dose of lidocaine based on weight. Local analgesia is achieved through premedication with atomized lidocaine to each nare. Analgesia is achieved through the use of viscous lidocaine jelly as lubrication of the NGT inserted into the nasopharynx prior to administration. The use of atomized lidocaine reduces noxious stimuli to the nares as the lidocaine viscous jelly reduces gag reflex by the nasopharynx. Anxiolysis is achieved with midazolam by mouth, intravenous, or intranasal route. For an improved experience the NGT bundle requests Child Life Specialists to be present for preparation of the procedure, medical play, and distraction. Since implementation in November 2017, the NGT bundle yields promising improvement for a previously uncomfortable and anxiety provoking procedure.

References:

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