

Postoperative Management of the Neonate

Receiving Epidural Anesthesia

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Background: Use of continuous epidural anesthesia in the newborn undergoing major thoracic and abdominal surgery offers the advantage of good perioperative analgesia while reducing neurotoxic risks associated with systemic analgesia. Additional benefits include improvement in respiratory function leading to early extubation, early return of bowel function, attenuation of the post-operative stress response, reduction in postoperative apnea, and reduction of general anesthesia-related postoperative complications. Epidural analgesia may be used as a mono-therapy or combined with a continuous intravenous opiate.

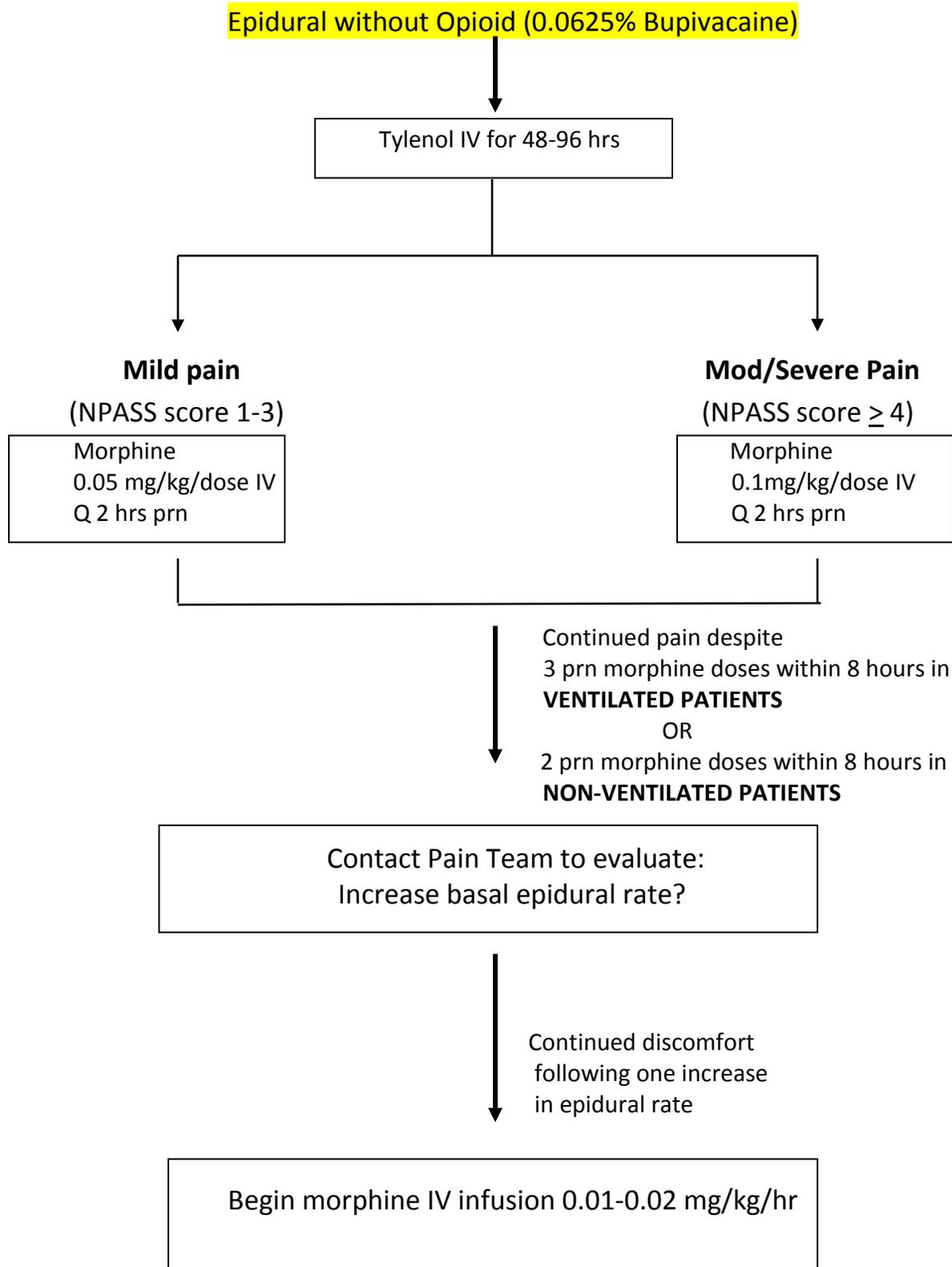
Patient selection:

- > 2kg weight
- Larger incision spanning only a few dermatomes
- Thoracic or abdominal surgeries

Potential complications:

The active fraction of anesthetics is greater in neonates and poses a greater risk of toxicity and respiratory depression, which may be reduced by using a very dilute solution. At BCHO, a standardized dilution of bupivacaine (.0625%) will be used at a maximum infusion rate of 0.4ml/kg/hr. Rare complications may occur and include infection, anesthetic toxicity, change in catheter position, bleeding/hematoma with compression, or direct nerve injury. Infection risks may be reduced by removal of the catheter by 72 hours. Local anesthetic toxicity may manifest as seizures or very rarely, malignant cardiac ventricular dysrhythmias.

BCHO NICU POSTOPERATIVE PAIN GUIDELINE FOR PATIENTS WITH EPIDURAL INFUSIONS WITHOUT OPIOID



BCHO NICU POSTOPERATIVE PAIN GUIDELINE FOR PATIENTS WITH EPIDURAL INFUSIONS WITH OPIOID

