

Regional Nerve Block

Use of long-acting local anesthetic (bupivacaine or ropivacaine) injected into nerves to block pain at site

Provides prolonged analgesia postoperatively, such as after inguinal herniorrhaphy

May be used to provide local anesthesia for surgery, such as dorsal penile nerve block for circumcision or for reduction of fractures

Inhalation

Use of anesthetics, such as nitrous oxide, to produce partial or complete analgesia for painful procedures

Side effects (e.g., headache) possible from occupational exposure to high levels of nitrous oxide

Epidural or Intrathecal

Involves catheter placed into epidural, caudal, or intrathecal space for continuous infusion or single or intermittent administration of opioid with or without a long-acting local anesthetic (e.g., bupivacaine, ropivacaine)

Analgesia primarily from drug's direct effect on opioid receptors in spinal cord

Respiratory depression rare but may have slow and delayed onset; can be prevented by checking level of sedation and respiratory rate and depth hourly for initial 24 hours and decreasing dose when excessive sedation is detected

Nausea, itching, and urinary retention common dose-related side effects from the epidural opioid

Mild hypotension, urinary retention, and temporary motor or sensory deficits common unwanted effects of epidural local