

Opioid Side Effects and Treatment

Side Effect	Treatment	Comments
Constipation	Oral laxatives (i.e. docusate, lactulose, pediatric enema, polyethylene glycol, senna); lifestyle modifications (increase fluids, fiber supplementation, exercise); oral opioid antagonist therapy; acupuncture	Treat prophylactically; tolerance does not develop
Nausea/vomiting	Antiemetic therapy (i.e. metoclopramide, ondansetron); slower titration of opioid; opioid rotation	Side effect increases with age; tolerance to the emetic effect usually develops quickly; may be beneficial to initiate prophylaxis in children beyond infancy
Pruritus	Antihistamine (i.e. diphenhydramine, hydroxyzine), not usually very effective; low-dose naloxone or other partial agonist-antagonist; opioid rotation; ondansetron or other non-antihistamine antiemetic	Very common side effect; main reason for opioid rotation in children
Urinary retention	Reassurance; bladder massage; sensory stimulation (e.g. running water, placing child in bathtub, place child's hands in water); intermittent catheterization	Frequent side effect
Respiratory Depression	In opioid-naïve child: very close monitoring with first dose, hold or decrease subsequent doses; partial agonist-antagonist or pure antagonist	Largest barrier to pain management; rarely occurs if medications are administered properly; tolerance develops rapidly; rare with sustained opioid therapy
Somnolence	Psychostimulants (i.e. methylphenidate)	Rapid tolerance develops; dose psychostimulants in morning and noon to prevent sleep disturbances
Confusion	Observe; reassure; opioid rotation; neuroleptic treatment if develops delirium (i.e. Haldol)	Will improve with time
Myoclonus	Hydration; dose reduction and opioid rotation; anxiolytics; benzodiazepines	Medical emergency; may progress to seizures; results from accumulation of opioids and metabolites in the CNS (particularly meperidine and methadone); occurs with dehydration, concomitant high doses and prolonged administration