

	Dextroamphetamine: 2.5-5 mg PO in AM and early afternoon Methylphenidate: 2.5-5 mg PO in AM and early afternoon Consider opioid switch if sedation persists	(e.g., Mountain Dew, cola drinks)
Nausea, vomiting	Promethazine: 0.5 mg/kg q 4-6 h; maximum: 25 mg/dose Ondansetron: 0.1-0.15 mg/kg IV or PO q 4 h; maximum: 8 mg/dose Granisetron: 10-40 mcg/kg q 2-4 h; maximum: 1 mg/dose Droperidol: 0.05-0.06 mg/kg IV q 4-6 h; can be very sedating	Imagery, relaxation Deep, slow breathing
Pruritus	Diphenhydramine: 1 mg/kg IV or PO q 4-6 h prn; maximum: 25 mg/dose Hydroxyzine: 0.6 mg/kg/dose PO q 6 h; maximum: 50 mg/dose Naloxone: 0.5 mcg/kg q 2 min until pruritus improves (diluted in solution of 0.1 mg of naloxone per 10 ml of saline) Butorphanol: 0.3-0.5 mg/kg IV (use cautiously in opioid-tolerant children; may cause withdrawal symptoms); maximum: 2 mg/dose because mixed agonist-antagonist	Oatmeal baths, good hygiene Exclude other causes of itching Change opioids
Respiratory depression—mild to moderate	Hold dose of opioid Reduce subsequent doses by 25%	Arouse gently, give oxygen, encourage to deep breathe
Respiratory depression—severe	Naloxone During disease pain management: 0.5 mcg/kg in 2 min increments until breathing improves (Pasero and McCaffrey, 2011) Reduce opioid dose if possible Consider opioid switch During sedation for procedures: 5-10 mcg/kg until breathing improves Reduce opioid dose if possible Consider opioid switch	Oxygen, bag and mask if indicated
Dysphoria, confusion, hallucinations	Evaluate medications, eliminate adjuvant medications with central nervous system effects as symptoms allow Consider opioid switch if possible Haloperidol (Haldol): 0.05-0.15 mg/kg/day divided in two to three doses; maximum: 2-4 mg/day	Rule out other physiologic causes
Urinary retention	Evaluate medications, eliminate adjuvant medications with anticholinergic effects (e.g., antihistamines, tricyclic antidepressants) Occurs more frequently with spinal analgesia than with systemic opioid use Oxybutynin 1 year old: 1 mg tid 1 to 2 years old: 2 mg tid 2 to 3 years old: 3 mg tid 4 to 5 years old: 4 mg tid >5 years old: 5 mg tid	Rule out other physiologic causes In/out or indwelling urinary catheter

hs, At bedtime; *IV*, intravenous; *PO*, by mouth; *PR*, by rectum; *prn*, as needed; *q*, every; *tid*, three times a day.

Choosing the Pain Medication Dose

Children (except infants younger than 3 to 6 months old)