

Analgesia, Sedation, and Paralysis				
Analgesics				
Agent	Onset	Duration	Bolus Dose	Notes
Morphine	20 mins	3-5 hours	IV: 0.05-0.1 mg/kg/dose q1-2h	Can be associated w/ histamine release leading to hypotension, pruritus, flushing
Hydromorphone (Dilaudid)	15 mins	5 hours	IV: 0.015 mg/kg/dose q3h	
Fentanyl	Immediate	30-60 minutes	IV: 1-2 mcg/kg/dose q1h	Minimal hemodynamic instability w/ bolus doses. Large/rapid bolus doses can lead to muscle rigidity, interfering w/ ventilation - administer NMB or naloxone, support breathing
Sedatives				
Agent	Onset	Duration	Dose	Notes
Midazolam (Versed)	1-5 min	2-6 hours	IV: 0.05-0.1 mg/kg/dose q1-2h	Dose dependent hypotension and respiratory depression
Lorazepam (Ativan)	15-30 min	8-12 hours	IV: 0.05 mg/kg/dose q4h-q12h	Same adverse effects as midazolam, longer duration of action
Ketamine	30 sec	5-10 minutes	<u>Intubation Dosing:</u> IV: 1-2 mg/kg/dose (load) + 0.5 mg/kg/dose q5min PRN <u>Conscious Sedation:</u> IV: 0.2 - 1.0 mg/kg (load) + 0.5 mg/kg q10min PRN	Dissociative (causes trance-like state associated w/ amnesia - but patients still move). Myocardial depressant but also increases catecholamine release. Mild analgesic. Bronchodilator.
Dexmedetomidine	5 min	1-2 hours	0.2-2 mcg/kg/hr	Dose dependent bradycardia is common. Can also cause hypertension or hypotension
Propofol	30 sec	5-10 minutes	25-150 mcg/kg/min, bolus 1-2 mg/kg Only credentialed ICU/ anesthesiologist in non-intubated patients. Attending can bolus (or fellow under direct supervision). Infusion not to last longer than 12 hours in children.	Dose dependent hypotension (vasodilation and myocardial depression). Prolonged/high dose infusions increase risk of propofol infusion syndrome (cardiac failure, arrhythmias, rhabdo, lactic acidosis, among other problems). Children at higher risk
Paralytics				
Agent	Onset	Duration	Dose	Notes
Rocuronium	60-90 sec (high dose); 2-3 minutes	30-60 min	IV: 0.6-1.2mg/kg/dose	High dose (1.2mg/kg) has more rapid onset but also longer duration, should be used for rapid sequence intubation
Vecuronium	1-2 min	20-60 min	IV: 0.1 mg/kg/dose or infusion of 0.1mg/kg/hr	