

## 1 Normal Parameters for Pediatric Anesthesia

**Table 1.14** Patient controlled analgesia

	Morphine	Fentanyl	Hydromorphone
<b>Loading dose</b>	0.1 mg/kg	0.5–1 mcg/kg (max 25 mcg)	5–15 mcg/kg
<b>Continuous infusion</b>	0.01–0.03 mg/kg/h	0.1 mcg/kg/h	1.5 mcg/kg/h
<b>Bolus dose (PCA)</b>	0.015–0.025 mg/kg	0.14–0.28 mcg/kg	3–5 mcg/kg
<b>Lockout interval</b>	6–12 minutes	6–10 minutes	6–15 minutes
<b>4-hour max dose</b>	0.25–0.35 mg/kg	2.8 mcg/kg	50–60 mcg/kg

Suggestions for opioid naïve patients

Bolus dosing should be adjusted for degree of pain reduction with bolus

Lockout interval should be adjusted for duration of pain control following bolus

**Nalbuphine: 10–20 mcg/kg IV every 6 hrs for opioid induced pruritus**

**Naloxone infusion: for opioid induced pruritus 0.1–0.25 mcg/kg/h; consider switching opioid**

**Naloxone bolus: for respiratory depression 0.01 mg/kg – stop opioid infusion – continuous SpO<sub>2</sub> monitoring.**