

PT. NAME	_____
MR #	_____
ROOM #	_____

## Guidelines for Adult Patients Intravenous PCA Orders

**Loading Dose:** PCA should be initiated after an initial bolus dose of morphine 5 – 20 mg (2-3 mg every 5 minutes up to 20 mg) to attain adequate plasma morphine concentrations. Doses should be reduced in patients over 70 years, and in patients with severely compromised physical status.

**PCA Dosing:** Morphine is the drug of choice. Meperidine is the last drug of choice. Avoid Meperidine in elderly, renal insufficiency patients or concurrent use of MAO inhibitor therapy.

Drug	Concentration	Patient Controlled Dose	Lockout	4 Hour Limit
Morphine	5 mg / ml (150 mg in 30 ml)	1 – 3 mg	8 – 15 minutes	30 – 70 mg
Fentanyl	50 mcg / ml (1500 mcg in 30 ml)	10 – 25 mcg	8 – 15 minutes	400 – 800 mcg
Hydromorphone	0.2 mg / ml (4 mg in 20 ml)	0.1 – 0.6 mg	8 – 15 minutes	2.4 mg – 4.8 mg
Meperidine	10 mg / ml (300 mg in 30 ml)	10 – 30 mg	8 – 15 minutes	80 – 300 mg

Use the patient’s verbal analog pain scale (VAS) of 0 (no pain) to 10 (worst pain ever) to monitor effectiveness. Establish VAS score to define comfort zone.

These doses must be adjusted upwards in opioid tolerant patients, and in young adults with upper abdominal or thoracic operations. For elderly patients over 70 years old and severely compromised patients, decrease the initial bolus and infusion rate by 25-30%.

- For severe pain and opioid tolerant patients, do not use 4 hour limit.

**Basal/Continuous Infusion Rate:** This may be necessary for severe pain, opioid tolerant patients, or those patients who are unable to activate the PCA button. Usual starting infusion rate would be morphine 1 –2 mg/hr, Fentanyl 10-25 mcg/hr, Hydromorphone 0.1 – 0.3 mg/hr, Meperidine 10 mg/hr. The 4 hr limit includes both the continuous (basal) infusion and patient boluses.

**Pediatric Patients:** For pediatric patients, consult the Acute Pain Service or a Pediatric Anesthesiologist.

**Morphine “Allergic” Patients:** Fentanyl or Hydromorphone can be used in morphine “allergic” patients. Question patient to determine if true allergy or drug sensitivity/adverse effects.

**REMEMBER: ORDER BOWEL PROGRAM**