

**PHYSICIAN'S ORDERS
ADULT INTRAVENOUS
PATIENT-CONTROLLED ANALGESIA (PCA)**

Page 1 of 4

Height Inches _____ Cm. _____	Weight Lbs. _____ Kg. _____
ALLERGIES: <input type="checkbox"/> YES (LIST BELOW) OR <input type="checkbox"/> LISTED PREVIOUSLY <input type="checkbox"/> NONE KNOWN	

NAME: _____
 BIRTHDATE/AGE: _____ SEX: _____
 MEDICAL RECORD NUMBER: _____
 ECD / ACCOUNT NUMBER: _____

PRINT CLEARLY IN INK OR IMPRINT WITH PATIENT'S CARD

3

PROVIDER TO SIGN AND PLACE PAGER NUMBER LEGIBLY UNDER EACH ORDER SET
 INDICATE CHOICE OF ORDER OPTIONS BY USING IN CHECK BOXES

Attending/Change Attending To: _____ (First) _____ (Last) **Pager:** _____

Resident: _____ **Pager:** _____ **Overnight coverage:** _____ **Pager:** _____

Intern/NP/PA (First Call): _____ **Pager:** _____ **House Staff Coverage:** Yes No (uncovered)

ALL OTHER ORDERS	DATE	TIME	MEDICATION ORDERS ONLY
1. Assess pain and sedation level as per hospital policy, using appropriate tools (e.g. POSS, RASS).			<input checked="" type="checkbox"/> Discontinue all previous opioids and benzodiazepines; additional opioids and benzodiazepines must be re-ordered with initiation of PCA
2. Obtain vital signs, pain, and sedation levels prior to initiation or change in PCA. Then monitor vital signs, pain, and sedation levels every 15 min x 4, every hour x 4, then every 4 hours.			1. Choose drug, dosing category, PCA dose* (CHOOSE ONLY ONE DOSE CATEGORY):
3. <input type="checkbox"/> Monitor continuous pulse oximetry for first 24 hrs. Page PCA ordering team thereafter to continue monitoring as needed.			Standard Dose :
4. Call MD/LIP for:			<input type="checkbox"/> Morphine 1 mg/mL PCA dose: _____ mg (usual dose 1mg, range 0.5 - 5mg)
• Respiratory rate < 10 or SpO2 < 93%			<input type="checkbox"/> HYDROmorphone 0.2 mg/mL PCA dose: _____ mg (usual dose 0.2mg, range 0.1 - 1.4mg)
• Unsatisfactory analgesia > 1 hour from previous adjustment			<input type="checkbox"/> FentaNYL 20 mcg/mL PCA dose: _____ mcg (usual dose 10 mcg, range 10 - 50mcg)
• Increasing sedation (POSS score ≥ 3 or RASS < 0)			Lockout Interval: _____ (usual 6 min; range 6-30min)
• Unsatisfactorily treated nausea/vomiting or pruritus			High Dose (only for opioid-tolerant patients):
5. If no other IV ordered, use NS at 30mL/hr to maintain IV access for PCA			<input type="checkbox"/> Morphine 5 mg/mL PCA dose: _____ mg (range 0.5 - 10 mg)
6. Educate the patient and family on the proper use of the PCA pump			<input type="checkbox"/> HYDROmorphone 1 mg/mL PCA dose: _____ mg (range 0.1 - 2 mg)
*Note: Morphine is the initial drug of choice if the patient has normal renal function.			<input type="checkbox"/> FentaNYL 20 mcg/mL PCA dose: _____ mcg (range 10 - 100 mcg)
			Lockout Interval: _____ (usual 10 min; range 6-30min)
			Intractable Pain Dose (use requires palliative care or pain anesthesia approval if not in ICU; only for opioid-tolerant patients):
			<input type="checkbox"/> Morphine 5 mg/mL PCA dose: _____ mg (no range)
			<input type="checkbox"/> HYDROmorphone 1 mg/mL PCA dose: _____ mg (no range)
			<input type="checkbox"/> FentaNYL 20 mcg/mL PCA dose: _____ mcg (no range)
			Lockout Interval: _____ (usual 10 min; range 6-30min)
			2. One hr limit: _____ (includes max PCA doses + continuous doses total in 1 hour)
*Note: Hard ranges for **continuous infusion in Alaris pump (doses above the following require ordering the intractable pain dosing library. Please order as a separate infusion.):			3. PCA **continuous infusion (Only for opioid-tolerant patients. Strongly recommend input from anesthesia or palliative care if not in ICU)
Pump Rate Limits			<input type="checkbox"/> _____ / hour
Standard Dose			<input type="checkbox"/> 23:00PM - 7:00AM, _____ / hour
High Dose			(For orders PRN respiratory depression, see page 3)
Morphine	1mg/hr	5mg/hr	
HYDROmorphone	0.2mg/hr	2mg/hr	
FentaNYL	10mcg/hr	50mcg/hr	
Signature of MD/DO/NP/PA: _____	Printed Name: _____		Pager: _____
Signature of RN: _____	Printed Name: _____	Date: _____	Time: _____



CLINICAL GUIDE FOR CHANGING OPIOID ANALGESICS

Oral / Rectal (mg)	Analgesic	Parenteral (mg)
200	Codeine	100
300	Tramadol	-
30	Hydrocodone	-
30	Morphine	10
20	Oxycodone	-
6	Hydromorphone	1.5
(-)	Fentanyl	0.1 (100mcg)
	Oxymorphone	

CALCULATING FORMULA

To convert from one opioid or route of administration to another opioid or route of administration:

$$\text{current opioid dose (mg), route} \times \left(\frac{\text{FROM CHART desired opioid}}{\text{current opioid}} \right) = \text{desired opioid dose (mg), route}$$

ADJUSTING FOR INCOMPLETE CROSS TOLERANCE

Based on level of pain control at the time of conversion

Poor pain control	100%
Moderate pain control	75%
Excellent pain control	50%

FENTANYL CONVERSION

(not to be used for acute pain management)

Oral Morphine	50-100mg / 24 hours
	Fentanyl 25 mcg / hour patch

ORAL/TRANSDERMAL AVAILABILITY OF COMMONLY PRESCRIBED OPIOIDS

Tramadol	50mg tablets
Morphine	Immediate-release: 30mg tablets Controlled-release: 15mg, 30mg, 60mg, 100mg tablets Oral solution: 20mg / 10mL, 20mg/mL
Oxycodone	Immediate-release: 5mg tablets Controlled-release: 10mg, 20mg, 40mg tablets Oral solution: 5mg / 5mL, 20mg/mL
Hydromorphone	2mg, 4mg tablets 3mg suppositories
Fentanyl	Transdermal patches: 12mcg, 25mcg, 50mcg, 75mcg, 100mcg

*For specific questions regarding hospital formulary, please contact the main pharmacy.
(Memorial Campus X46356, University Campus X62775)*



PHYSICIAN'S ORDERS
ADULT INTRAVENOUS
PATIENT-CONTROLLED ANALGESIA (PCA)

Page 3 of 4

Height: Inches ___ Cm. ___ Weight: Lbs. ___ Kg. ___
ALLERGIES: [] YES (LIST BELOW) OR [] LISTED PREVIOUSLY
[] NONE KNOWN

NAME:

BIRTHDATE/AGE:

SEX:

MEDICAL RECORD NUMBER:

ECD / ACCOUNT NUMBER:

PRINT CLEARLY IN INK OR IMPRINT WITH PATIENT'S CARD

PROVIDER TO SIGN AND PLACE PAGER NUMBER LEGIBLY UNDER EACH ORDER SET
INDICATE CHOICE OF ORDER OPTIONS BY USING X IN CHECK BOXES [X]

Attending/Change Attending To: _____ (First) _____ (Last) Pager: _____

Resident: _____ Pager: _____ Overnight coverage: _____ Pager: _____

Intern/NP/PA (First Call): _____ Pager: _____ House Staff Coverage: [] Yes [] No (uncovered)

Table with 4 columns: ALL OTHER ORDERS, DATE, TIME, MEDICATION ORDERS ONLY. Rows include 1. Prevention of Constipation, 2. Treatment of Constipation, 3. Treatments PRN Nausea/Vomiting (N/V) (choose one), 4. Treatments PRN Pruritus, 5. Treatments PRN Respiratory Depression.

Signature of MD/DO/NP/PA: _____ Printed Name: _____ Pager: _____

Signature of RN: _____ Printed Name: _____ Date: _____ Time: _____

Prohibited Abbreviations: U, qd, qod, IU, .1 (write 0.1), 1.0 (write 1), MS, MSO4, MgSO4



Suggestions Regarding Treatment of Side Effects:**Constipation:**

The daily regimen should be increased if frequent rescue medication for constipation is necessary.

1. Opioid reduce peristalsis. All patients on opioids need a daily stimulant laxative to prevent constipation, as well as rescue medication if constipation persists.
2. Consider the following protocol:
 - i. Start with senna (max of 8 tabs/day) and docusate
 - ii. Order oral and rectal laxatives PRN and use if no bowel movement in 1-2 days.
 - iii. Titrate daily maintenance regimen as needed.
3. Note: Some patients are not appropriate to receive rectal laxatives or enemas (e.g. patients with neutropenia).

Nausea/Vomiting: tolerance will usually develop to opioid induced nausea/vomiting

1. Constipation may contribute or be the source of nausea so be sure to treat the constipation..
2. Consider pathophysiology of patients' nausea to guide treatment.
3. For opioid-induced nausea, dopamandergic agents can work best.
 - i. Metoclopramide - can also help with poor GI motility (watch for drug induced movement disorders)
 - ii. Haloperidol - non-sedating, 0.5mg IV every 6 hours PRN (watch for drug induced movement disorders)
 - iii. Prochlorperazine (Compazine) 25mg PR every 12 hours PRN nausea/vomiting
 - iv. Ondasetron - can be effective, especially in post-op setting; can cause constipation and headache

Pruritus:

1. Consider opioid rotation
2. Diphenhydramine can decrease the opioid induced histamine release that triggers itching.

