



**PHYSICIAN'S ORDER SHEET
 STANDING ORDERS FOR:
 INTENSIVE CARE UNIT**

Check here if STAT
 medications ordered

ANOTHER BRAND OF GENERICALLY EQUIVALENT PRODUCT, APPROVED BY THE PHARMACY AND THERAPEUTICS COMMITTEE, MAY BE ADMINISTERED UNLESS (SPECIFIC) IS WRITTEN AFTER THE MEDICATION ORDER.

CONFIDENTIAL INFORMATION

PCA ANALGESIA PHYSICIAN ORDER – FOR ICU USE ONLY

Morphine is first line medication

Fentanyl is the medication of choice for patients that are:

- ▶ Hemodynamically unstable
- ▶ Allergic to morphine
- ▶ Renal failure

- ▶ Use IV Med. for breakthrough pain, avoid IM
- ▶ Use caution with other CNS depressants

Hydromorphone is an alternative medication for use in PCA

NOTE: Patients may require increased opioid doses if on chronic opioid therapy.

Select one of the following

MORPHINE DOSING ORDER (1 mg./ml)

1. **Loading dose** ____ mg. IVP
(recommended starting dose 0.03 - 0.05 mg./Kg.)
2. **Continuous rate** ____mg. (optional, starting dose of 0.5 - 1 mg./hr for opioid naïve patients)
3. **Demand dose** ____ mg. (starting dose 0.5 - 1 mg.)
4. **Lock out interval** ____ minutes (range 5 - 10 minutes)
5. **Nursing Bolus** _____ mg. IV q 30 min. prn.
Nurse will follow Dosing Titration Protocol (see reverse side for Titration Protocol)

FENTANYL DOSING ORDER (25 mcg./ml)

1. **Loading dose** ____ mcg. IVP
(recommended starting dose 1 - 2 mcg./Kg.)
2. **Continuous rate** ____ mcg. (optional, starting dose of 1 - 2 mcg./Kg./hr for opioid naïve patients)
3. **Demand dose** ____ mcg. (starting dose 5 - 25 mcg.)
4. **Lock out interval** ____ minutes (range 5 - 8 minutes)
5. **Nursing Bolus** _____ mcg. IV q 30 min. prn.
Nurse will follow Dosing Titration Protocol (see reverse side for Titration Protocol)

HYDROMORPHONE DOSING ORDER (1 mg./ml)

1. **Loading dose** ____mg. IVP
(recommended starting dose 0.3 - 0.5 mg.)
2. **Continuous rate** ____ mg. (optional, starting dose of 0.1 - 0.3 mg./hr for opioid naïve patients)
3. **Demand dose** ____ mg. (starting dose 0.1 - 0.4 mg.)
4. **Lock out interval** ____ minutes (range 5 - 10 minutes)
5. **Nursing Bolus** _____ mg. IV q 30 min. prn.
Nurse will follow Dosing Titration Protocol (see reverse side for Titration Protocol)

CONFIDENTIAL INFORMATION

Reversal Agents - Narcan 0.1 mg. IV (dilute 0.4 mg. in 9 ml of NS). May repeat q 2 min. for:

- Respiratory rate 8 or less if patient not ventilated
- Sedation level of 4 unless patient is ventilated

DOSING TITRATION

Nurse may increase continuous infusion rate by 10% per hour if the following criteria are met:

- ▶ Has not reached comfort goal
- ▶ Sedation level of 2 or less
- ▶ Respiratory rate greater than 10
- ▶ Not experiencing side effects

Nurse may decrease continuous infusion rate by 50% for:

- ▶ Sedation level of 3
- ▶ Respiratory rate of < or = to 8
- ▶ Increase in mental confusion
- ▶ Presence of unrelieved nausea/vomiting

Nurse will stop continuous infusion and contact physician if:

- ▶ Respiratory rate is < or = to 6
- ▶ Narcan is given
- ▶ Sedation level of 4 if not mechanically ventilated



PAIN ASSESSMENT (ICU PROTOCOL)

→ Pain assessment q 2 hours for the first 24 hours postoperative, then every 4 hours, and with reports of pain.

- Pain rating
- Sedation level
- Respiratory Rate
- PCA History (injections / attempts)

→ Reassessment of pain after interventions.

- IV analgesic 30 minutes
- PCA adjustment 60 minutes

→ Any reports of pain.

Medications

Morphine is first line medication

Hydromorphone is an alternative medication for use in PCA

Fentanyl is the medication of choice for patients that are:

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- Allergic to morphine
- Renal Failure

- Use IV medications for breakthrough pain, avoid IM
- Use caution with other CNS depressants



NURSING GUIDELINES AND INFORMATION FOR PCA ANALGESIA

Goals for PCA Protocol

1. Worst pain rating on movement of ≤ 5 on a 0 - 10 scale.
2. Elimination of IM pain medications for pain control.
3. Elimination of Meperidine as analgesic choice.
4. Decrease postoperative complications and provide for shorter length of stay in the Critical Care Unit.
5. Decrease potential for the development of chronic pain conditions such as post thoracotomy pain syndrome.

General Principles of Pain Management

1. Patient's subjective report is the best indicator of the intensity and location of pain.
2. When the patient is unable to verbalize complaints of pain, and the patient has a condition that would indicate pain, objective signs of pain would be used in the assessment. Indicators such as facial grimacing, withdrawal from stimulus, or changes in the patient's baseline vital signs should be used.
3. Patients should be educated concerning pain assessment prior to any procedure that may induce pain or result in pain post procedure.
4. Pain assessment should occur at frequent intervals, such as q 2 hours while the patient is awake.
 - Reassessment must occur at designated time intervals after interventions;
 - Parental interventions - 30 minutes
 - Oral interventions - 60 minutes
5. Oral route is the preferred route. When it is not available, due to patient condition, IV would be the proper route with PCA being the preferred IV route.
6. **IM injections should be avoided as absorption rate is unreliable and fear of injections may deter patients from reporting pain.**
7. Analgesia should be given round the clock, until such time as the patient indicates that their pain has diminished.
8. Activities that would increase the patient's pain should be anticipated and the patient medicated prior to those activities.
9. The analgesic requirements vary from patient to patient and must be individualized to meet patient needs.
10. **Never promise a patient that they will experience NO pain. This is a goal that may NOT be obtainable, and will be a set up for patient dissatisfaction.**

Patient Education

1. When possible, patient education concerning PCA should be done preoperatively.
2. Reinforce with patient that bolusing prior to movement will decrease the pain.

Triggers for Evaluation

1. Pain rating greater than comfort goal of 3 on 0 - 10 pain scale for more than 2 assessments.
2. Sedation rate greater than 2 or sedation rate greater than 3 while patient on ventilator.
3. Use of more than 2 breakthrough dose in 4 hour period.
4. Uncontrolled side-effects.

Dosing Titration

Nurse may increase continuous infusion rate by 10% per hour if the following criteria are met:

- Has not reached comfort goal
- Sedation level of 2 or less
- Respiratory rate greater than 10
- Not experiencing side effects

Nurse may decrease continuous infusion rate by 50% for:

- Sedation level of 3
- Respiratory rate of $< \text{ or } = 8$
- Increase in mental confusion
- Presence of unrelieved nausea / vomiting

Nurse will stop continuous infusion and contact physician if:

- Respiratory rate is $< \text{ or } = 6$
- Narcan is given
- Sedation level of 4 if not mechanically ventilated