Opioid

Over-Sedation Monitoring
Over-Sedation Monitoring

Purpose & Objectives

• Provide safe care for our patients in pain

• Prevent over-sedation and respiratory depression in patients receiving opioids

• Outline over-sedation monitoring for patients receiving opioids for pain management
Why should you monitor your patient receiving opioids?

• To ensure adequate oxygenation, ventilation, and patient safety
• To evaluate response to treatment
  – The first 24 hours is the most crucial time for monitoring:
    • After surgery
    • When existing doses of analgesics are altered
    • When new analgesic modalities are introduced
Why are we doing this? Who decides this is the right thing to do for the patients?

- There have been recent incidents in this hospital and across the country where patients of all ages were provided appropriate and inappropriate doses of opioid analgesics, but suffered respiratory depression.
- Nationally published guidelines and papers written by national experts were reviewed to determine these standards.
- Prior to these guidelines, patients were assessed for pain relief after opioid administration, but not assessed to ensure they were not over-sedated in the process.
Modified Pasero Opioid-induced Sedation Scale (POSS)

• POSS is for monitoring and early detection of unintended sedation with opioid administration

• Sedation usually precedes respiratory depression
Patients at risk for over-sedation

- Obstructive sleep apnea, snoring, obesity, and/or BMI > 35
- Age:
  - Premature infants less than 12 months
  - Infants less than 6 months
  - Patients greater than 65 years old
- End-stage organ failure
- Altered CNS function
- Concurrent use of sedating medications
  - e.g., muscle relaxants, antihistamines, anxiolytics
Patients at risk for over-sedation (cont.)

- Supplemental oxygen use-oximetry may mask hypoventilation
- Patient Controlled Analgesia (especially with a basal rate)
- Caregiver Controlled Analgesia
- Altered airway
  - oral mucositis
  - chronic pulmonary conditions
  - CO$_2$ retention
  - tracheotomy
  - home ventilatory support: CPAP or BiPAP
Monitoring Guidelines

- 2 required components:
  - Respiratory Assessment
    - Respiratory rate
    - Respiratory rhythm/pattern
    - Respiratory effort
    - Respiratory depth
    - Airway characteristics (e.g., presence of snoring)
  - Sedation Assessment
    - POSS scale (see next slide)

*Based on nursing judgment, patients alert, awake and/or participating in activities may not require a full respiratory assessment*
Sedation Level
Modified Pasero Opioid-induced Sedation Scale (POSS)

0 = Sleep and easy to arouse
   \textbf{Acceptable; no action necessary; may increase opioid dose if needed/ordered}

1 = Awake and alert
   \textbf{Acceptable; no action necessary; may increase opioid dose if needed/ordered}

2 = Slightly drowsy, easily aroused
   \textbf{Acceptable; no action necessary; may increase opioid dose if needed/ordered}

3 = Frequently drowsy, arousal, drifts off to sleep during conversation
   \textbf{Unacceptable; Continue to monitor more frequently until return to baseline. Notify LIP and consider calling the Rapid Response Team and giving dilute naloxone.}

4 = Somnolent, minimal or no response to physical stimulation
   \textbf{Unacceptable; stop opioid; Continue to monitor more frequently until return to baseline. Notify LIP and consider calling the Rapid Response Team and giving dilute naloxone.}
Frequency of Assessment

Opioid IV infusions/Drips/PCA/CCA with and without a basal rate, and or long-acting or sustained released opioids

- At initiation
  - The initial re-assessment after opioid administration should consider factors such as:
    - Peak effect of opioid administered
    - Patient Activity
    - Risk Factors for over-sedation
    - Previous exposure to sedation

(Note: if the patient has been on ongoing opioid therapy for more than 24 hours and then is switched over to a long-acting or sustained release opioid, monitoring may proceed at the current frequency; monitoring does not need to start over when a new opioid is started)
Frequency of Assessment

Opioid IV infusions/Drips/PCA/CCA with and without a basal rate, and or long-acting or sustained released opioids (continued)

- Every 1 hour for 12 hours
- Then every 2 hours for 12 hours
- Then every 4 hours for duration if:
  
  POSS Score $\leq 2$, respiratory rate at baseline, absence of respiratory distress, apnea, and snoring

More frequent per nursing discretion if:

POSS Score of 3 or 4, change in respiratory rate, presence of respiratory distress/apnea/snoring, patient unstable, or patient condition warrants

Notify LIP and Consider calling Rapid Response Team and giving dilute Naloxone
Frequency of **Assessment**

Nurse Administered (e.g. prn or scheduled) doses, *any route*-each dose given

– At initiation

– The initial re-assessment after opioid administration should consider factors such as:
  - *Peak* effect of opioid administered
  - Patient Activity
  - Risk Factors for over-sedation
  - Previous exposure to sedation

– After the initial 24 hours, stable* patients receiving around the clock opioid dosing, re-assessment for sedation and pain level may be completed every 4 hours

* **POSS Score < 2**, respiratory rate at baseline, absence of respiratory distress, apnea, and snoring
Frequency of Assessment
Nurse Administered When Frequency Is Similar to PCA or Continuous Infusion

At initiation
- The initial re-assessment after opioid administration should consider factors such as:
  - *Peak* effect of opioid administered
  - Patient Activity
  - Risk Factors for over-sedation
  - Previous exposure to sedation
- Every 1 hour for 12 hours
- Then every 2 hours for 12 hours
- After the initial 24 hours, stable* patients receiving around the clock opioid dosing, re-assessment for sedation and pain level may be completed every 4 hours

* POSS Score \( \leq 2 \), respiratory rate at baseline, absence of respiratory distress, apnea, and snoring
Assessment for Patients who are Asleep

- Respiratory assessment (complete first in a sleeping patient)
- Sedation assessment (e.g. responsiveness to stimuli, such as, patient stirs when the bed is bumped)
  - Document “patient asleep” in the pain assessment section
  - If concerned or patient is snoring, arouse patient more fully to assess level of sedation
How do I know when the “Peak Effect” occurs?

• See opioid analgesic reference card or other pharmacy references

• Common opioid peak times:
  – Hydrocodone (Lortab): 2 hrs
  – Codeine (Tylenol with Codeine): 90 min
  – Morphine IV: 20 min
  – Morphine PO: 1.5 - 2hrs
  – Dilaudid IV and PO: 1 hr
  – Oxycodone (Percocet): 1-2 hrs

• Experts suggest simplifying common opioid peak times to avoid confusion:
  • Oral route around 1 hour
  • IV route around 30 minutes
Document

- Document in the:
  - Opioid Administration Sedation Assessment Group (POSS) which contains:
    - Modified Pasero Opioid-Induced Sedation Scale - POSS Score
    - Respiratory Assessment Rows
- Respiratory and sedation monitoring is not required, but may be ordered at the discretion of the licensed independent practitioner for the following patients:
  - End-of-life situations
  - Palliative Care Service
# Documentation

**Opioid-Induced Sedation (POSS)/respiratory monitoring:** monitor at initiation and peak for all opioids; additional monitoring for infusions and PCAs Q1H x12H, Q 2H X 12H, then Q4H if stable; notify LIP if POSS score 3 or 4

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### Modified Pasero Opioid-induced Sedation Scale

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**Last Filed Value**

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Common Questions:

• What if I increase the dose of the opioid? Do I have to restart the monitoring frequency? Not necessary based on nursing judgment.

•Couldn’t we just put all patients with opioids on monitors? No, a better measure would be to assess sedation.

• How can I find out the BMI of a patient to know if it is over 35? BMI is on the handoff report and is on the VS doc flowsheet under height and weight.
Review Test

Click the ICON link below and respond to the questions to record your participation. Passing Score is 5.