	Document Scope: Hospital-wide Patient Care	
	Document Type: Policy Approved on 2018-11-28 Next Review Date: 2021-11-27	
	<b>Monitoring Requirements for Patients Receiving Opioids</b>	Version: 1

## 1.0 Introduction

The purpose of this document is to inform health care providers of the monitoring and assessment requirements for patients receiving opioid medications via continuous intravenous infusion, via Patient/Nurse-Controlled Analgesia (PCA/NCA) therapy, or via intermittent intravenous bolus.

### Note:

- For the purposes of this document, the term “opioid” refers to morphine, hydromorphone and fentanyl
- Parenteral opioids are considered potentially highly toxic drugs
- Individual consideration regarding monitoring may be necessary and appropriate in cases such as palliative care, or patients with chronic use of opioids who wish to ambulate. Less stringent monitoring may be indicated in these situations. The RN is advised to assess the patient and consult with the Acute Pain Service (APS) or Responsible Physician when modifications to patient monitoring are being considered. A medical order should be obtained for any monitoring modifications
- **Values listed in the tables below are the minimum Sedation Score, Respiratory Rate and Oxygen Saturation values that require notification of APS/Responsible team.** Clinical judgment and an awareness of a patient’s baseline status must be utilized when assessing patients receiving opioids. **Patient condition may warrant notifying APS/Responsible team even if Sedation Score is lower, or Respiratory Rate or Oxygen Saturations are higher than the values listed.**

## 2.0 Policy


### 2.1 PCA/NCA Monitoring Requirements

With initiation of PCA/NCA, change of dose/rate/medication, or on admission/transfer to a nursing unit:

- Heart rate (HR), Blood pressure (BP), Respiratory rate (RR), Sedation Scale, and pain assessment q1h x4h

#### Ongoing monitoring

- Oxygen saturation continuously
- RR, Sedation score q1h
- HR, BP q4h
- Pain assessment q4h, or more often until pain relief goal is met


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<b>PCA/NCA Monitoring Requirements</b>			
<b>Notify APS:</b>			
Age group	If Respiratory Rate less than: *	Or, If <b>room air</b> Oxygen Saturation less than: **	Or, Other criteria
<3 mo	20	90%	Sedation score = 2 Disoriented Inadequate analgesia
3 – 12 mo	20		
1 – 5y	16		
5-12y	15		
12y+	11		

<b>Notify APS and Responsible team STAT, and TURN OFF infusion pump:</b>			
Age group	If Respiratory Rate less than: *	Or, If <b>room air</b> Oxygen Saturation less than: **	Or, Other criteria
<3 mo	16	88%	Hypoventilation, Sedation score 3 or Cyanosis
3 – 12 mo	16		
1 – 5y	13		
5-12y	11		
12y+	10		
<b>Startle patient and ask patient to breathe. Administer O2 at 100%. Assist ventilation with AMBU bag as needed. Have naloxone available.</b>			

\* unless otherwise ordered, based on patient-specific criteria.

+ Oxygen therapy can mask desaturations that may otherwise occur when hypoventilating. For patients receiving oxygen therapy, very close attention to respiratory rate, respiratory effort, sedation score and level of consciousness is required.

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## 2.2 Continuous Opioid Infusion Monitoring Requirements

With initiation of opioid infusion, change of dose/rate/medication, or on admission/transfer to a nursing unit:

- Heart rate (HR), Blood pressure (BP), Respiratory rate (RR), Sedation Scale, and pain assessment q1h x4h

Ongoing monitoring

- Oxygen saturation continuously
- RR, Sedation score q1h
- HR, BP q4h
- Pain assessment q4h, or more often until pain relief goal is met


<b>Continuous Opioid Infusion Monitoring Requirements</b>			
<b>Notify provider:</b>			
Age group	If Respiratory Rate less than: *	Or, If <b>room air</b> Oxygen Saturation less than: **	Or, Other criteria
<3 mo	20	90%	Sedation score = 2 Disoriented Inadequate analgesia
3 – 12 mo	20		
1 – 5y	16		
5-12y	15		
12y+	11		

<b>Notify Responsible team STAT, and TURN OFF infusion pump:</b>			
Age group	If Respiratory Rate less than: *	Or, If <b>room air</b> Oxygen Saturation less than: **	Or, Other criteria
<3 mo	16	88%	Hypoventilation, Sedation score 3 or Cyanosis
3 – 12 mo	16		
1 – 5y	13		
5-12y	11		
12y+	10		

**Startle patient and ask patient to breathe. Administer O2 at 100%. Assist ventilation with AMBU bag as needed. Have naloxone available.**

\* unless otherwise ordered, based on patient-specific criteria

+ Oxygen therapy can mask desaturations that may otherwise occur when hypoventilating. For patients receiving oxygen therapy, very close attention to respiratory rate, respiratory effort, sedation score and level of consciousness is required.

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## 2.3 IV Opioid Single Dose Monitoring Requirements

- Check baseline HR, RR, BP, oxygen saturation and sedation score for patients whose response to opioids is unknown.
- Pain assessment prior to dose administration.

### Intermittent monitoring

For opioids administered by:	HR, RR, BP, oxygen saturation and sedation score	Pain assessment
<b>IV Push</b>	Q5 min x 4, then Q30 min x 2	with last q5min vitals, then q30min x 2
<b>IV Additives</b>	Q10 min x 2, then Q30 min x 2	at end of flush, then q30min x 2

## 3.0 Related Documents

[Care of Patients Receiving Continuous Infusion of Opioids](#)

[Care of Patients Receiving Patient Controlled Analgesia PCA and Nurse Controlled Analgesia NCA Pain Management](#)

[Administration of medication](#)

[Electronic Patient Monitoring](#)

[Vital Signs Monitoring](#)

## 4.0 References

Jarzyna, D., Jungquist, C. R., Pasero, C., Willens, J. S., Nisbet, A., Oakes, L., ... & Polomano, R. C. (2011). American Society for Pain Management Nursing guidelines on monitoring for opioid-induced sedation and respiratory depression. *Pain Management Nursing*, 12(3), 118-145.

Parshuram, C.S., Hutchison, J., & Middaugh, K. (2009). Development and initial validation of the Bedside Paediatric Early Warning System score. *Critical Care*, 13. doi: 10.1186/cc7998