ACI NSW Agency for Clinical Innovation

PAIN INTEREST GROUP NURSING ISSUES "A sub - group of The Australian Pain Society"

Neuraxial Opioid Single Dose Chart (adult)
Explanatory Notes

These explanatory notes are to be used in conjunction with the Neuraxial Opioid Single Dose Education Slides

The term 'neuraxial' encompasses injections given in close proximity to the nerve roots of the central nervous system including spinal and epidural.

Target Patient Group

- The Neuraxial Opioid Single Dose Observation Chart is intended for use in ADULT patients receiving a neuraxial opioid for pain management.
- The Neuraxial Opioid Single Dose Observation Chart (adult) chart is NOT to be used for paediatric patients.

Target Education Group

- Anaesthetists who are administering a neuraxial opioid
- Nursing staff on wards and other clinical areas where patients have received a neuraxial opioid

Documentation of the administration of a neuraxial opioid

Completion of the patient identification, allergies and adverse reactions and administration of a neuraxial opioid section of this chart is to be completed by a prescriber in accordance with the Handling of Medication in NSW Hospitals Policy PD2007_077. [1]

Medical referral to the Pain Service:

- This section to be completed to comply with Medicare requirements for private patients
- Each hospital will have their own processes for the review of patients by their Acute Pain Service (or equivalent medical officer where a pain service does not exist)

Documentation of the administration of a neuraxial opioid (not fentanyl):

- The doctor who has administered the neuraxial opioid (not fentanyl) to determine the frequency of observations for the first 6 or 12 hours (depending on age or frailty of patient e.g. a young woman post-partum may have observations attended hourly for 6 hours whereas an elderly patient post orthopaedic procedure may have observations hourly for 12 hours).
- Date, time, opioid name, route, dose given (in mg or microgram), space for the medical officer's signature and printed name

Naloxone:

- The prescription incorporates a recommendation of dose and frequency for administration of naloxone where sedation score is 3 OR when sedation score is 2 and respiratory rate is less than or equal to 5 breaths per minute.
- This section is not considered a 'Standing Order' for naloxone and completion of the prescription is required prior to administration. *(See Frequently Asked Questions p.6)*
- IF a facility does provide a 'Standing order' for the administration of naloxone, a 'standing order naloxone sticker' stating the naloxone standing order can be affixed over the prescription section.

Record of naloxone administered

Four rows are provided for the administration of naloxone according to the prescription or the standing order sticker on the front page of the chart

Neuraxial Opioid Single Dose Management Guidelines

Management guidelines are printed on the bottom of the front page of the Neuraxial Opioid Single Dose Observation Chart. Users should refer to their own hospital's policy or procedure regarding management of patients receiving an intrathecal, spinal or epidural opioid.
Delayed sedation and respiratory depression is possible with neuraxial opioids

The Neuraxial Opioid Single Dose Management Guidelines are summarised in point form:

- Frequency of observations
- Frequency of observations following liposomal morphine administration
- Authorisation administration of other opioids
- Oxygen therapy and oxygen device key
- Intravenous access

Contact details for personnel responsible for the management of the patient receiving a neuraxial opioid during business hours and after hours may be hand written or sticker with relevant contact details attached.

Observations

The observations component of the Neuraxial Opioid Single Dose Chart has been developed in consultation with the Clinical Excellence Commission (CEC) to incorporate the 'track and trigger' principles of the Between the Flags Program[2] to promote the early recognition of the deteriorating patient associated with opioid administration.

The Neuraxial Opioid Single Dose Observation Chart is intended for concurrent use with the Standardised Adult General Observation chart (SAGO) chart. It is recognised that the frequency of observations for vital signs may differ from the frequency required following administration of a neuraxial opioid. Respiratory rate and oxygen therapy are to be documented on both the Neuraxial Opioid Single Dose Observation Chart and the SAGO chart.

The observations included in the Neuraxial Opioid Single Dose Observation Chart are those that are relevant to the needs of patients who have received a neuraxial opioid.

These observations include:

- **A PAIN SCORE** which is to be determined from a pain assessment with the patient at rest and with relevant movement (such as deep breathing and coughing for a patient post laparotomy) utilising either the numerical pain scale 0 to 10 or verbal pain scale; no pain, mild pain, moderate pain, severe pain and excruciating pain.
    - Pain score at rest to be recorded with the letter 'R'
    - Pain score with movement to be recorded with the letter 'M'

- **The SEDATION SCORE** is the most sensitive indicator for clinical deterioration associated with the administration of opioids. Respiratory depression is almost always preceded by increasing sedation.[3] 'track and trigger' colour codes have been incorporated to detect increasing sedation prompting appropriate clinical management of the patient. The PCA chart includes the following sedation scale: [3]
    - **3 Difficult to rouse or unresponsive** (Red Zone for Rapid Response)
    - **2 Constantly drowsy or unable to stay awake** (Yellow Zone for Clinical Review)
    - **1 Easy to rouse**
    - **0 Wide awake**

- **RESPIRATORY RATE** is graphically recorded and incorporates 'track and trigger' Red and Yellow Zones to detect respiratory depression and prompt appropriate Clinical Review or Rapid Response.

Observations for sedation score and respiratory rate are to be recorded graphically so that trends can be monitored (tracked).

If a patient's observations enter the Yellow or Red Zone, the instructions on the back page of the Neuraxial Opioid Single Dose Chart will explain what to do. These instructions explain when to call the pain service or equivalent medical officer* for a review of the patient.

** An 'Acute Pain Service' may not be present in all hospitals. The 'equivalent medical officer' refers to the medical person nominated for overseeing patients who have received a neuraxial opioid. (This person may be an anaesthetist.)*

- **Oxygen therapy** (Litres per minute) – see local hospital guidelines on oxygen administration for patients who have received a neuraxial opioid.

- **OXYGEN DEVICE / MODE** key is provided on the front page under PCA Management Guidelines.

Oxygen Device Key		
	NP	Nasal prongs
	FM	Simple face mask
	NRB	Non re-breather
	VM	Venturi mask/variable concentration mask

- **Nausea or vomiting** yes or no response
- **Pruritus** yes or no response

Clinical Review and Rapid Response Criteria

Instructions on the back page of the Neuraxial Opioid Single Dose Observation Chart explain WHEN to make a Clinical Review or Rapid Response call. They are consistent with the 'track and trigger' principles of the Between the Flags Program [2] which has been established as a 'safety net' in NSW Public Hospitals to reduce the risk of undetected clinical deterioration of patients and ensuring appropriate responses when needed.

Clinical Review Criteria are listed in the yellow box on the back page of the Neuraxial Opioid Single Dose Observation Chart. These criterion are in addition to those which are on the SAGO chart.
If a patient has any one or more of these criteria present you should consult with the nurse or midwife in charge and assess if a Clinical review is needed. Clinical judgement should be used in making a call. For example; if the pain service have just reviewed the patient and are aware of the patient's condition, you may not need to make the call.

Clinical Review Criteria

The 'Yellow Zone' highlights the following adverse effects that require clinical review by the Acute Pain Service or the equivalent medical officer responsible for the care of patients who have received a neuraxial opioid:

- **Sedation score 2** (Constantly drowsy, unable to stay awake)
- **A respiratory rate between 6 and 10 breaths per minute**
- **New, increasing or uncontrolled pain**

IF A REVIEW BY THE ACUTE PAIN SERVICE OR EQUIVALENT MEDICAL OFFICER IS NOT POSSIBLE, CALL FOR A CLINICAL REVIEW

There may be occasions where the doctor or nurse from the acute pain service may not be able to immediately review the patient. In these situations, a clinical review can be made.

Rapid Response Criteria

The 'Red Zone' highlights the following adverse effects that require an immediate rapid response from the hospitals local escalation protocol in addition to review by the Acute Pain Service or the equivalent medical officer responsible for the care of patients using who have received a neuraxial opioid:

- **Sedation score 2 and a respiratory rate less than or equal to 5 breaths per minute**
- **Sedation score 3** (patient difficult to rouse or unresponsive)

If a patient has criteria within the Red Zone there is no discretion. You must call a Rapid Response. This is because patients who have criteria within the Red Zone are likely to be seriously ill. The Acute Pain Service (or equivalent medical offer) must also be contacted.

Frequently Asked Questions

1. Why can't naloxone be a 'standing order'?

A naloxone standing order would require each hospital to write a protocol covering all issues surrounding the medication order and administration, implementation and accreditation. A standing order also requires annual review by the appropriate network/area drug and therapeutics committee. This process was considered labour intensive in contrast to a prescription that can be completed for individual patients.

Some facilities may have a 'Naloxone standing order – see your local policy or procedure to confirm.

2. Why is there no space to record Sa02 on the Neuraxial opioid single dose observation chart?

Oxygen saturation readings may not always be a good or reliable indicator of opioid-induced respiratory depression.[3] Care must be taken in the interpretation of Sa02 readings as normal levels of oxygen do not necessarily exclude abnormalities. The assessment of increasing sedation is considered a more accurate indicator of impending respiratory depression. [4] Sa02 can be recorded on the SAGO chart.

3. Can I use this Neuraxial opioid single dose observation chart for paediatric patients?

No. This chart has been developed for use in adult patients only.
Where facilities have paediatric patients, an existing relevant chart must be used for those patients.

Relevant Policy Directives and References

1. NSW Health. Handling of Medication in NSW Hospitals Policy PD2007_077.
2. NSW Health. Recognition and Management of the Patient who is Clinically Deteriorating PD 2010_026.
3. Australian and New Zealand College of Anaesthetists and Faculty of Pain Medicine (ANZCA) Bulletin December 2009.
4. Macintyre PE & Schug SA. (2007) *Acute Pain Management a Practical Guide*. 3rd ed. Saunders Elsevier: Edinburgh

For further information regarding implementation of the PCA chart you can contact:

- The clinical nurse consultant /specialist/registered nurse from your Acute Pain Service or education department.
- The consultant anaesthetist from your Acute Pain Service or equivalent team who manage patients with PCA.
- Jenni Johnson Pain Management Network Manager Agency for Clinical Innovation. jenni.johnson@aci.health.nsw.gov.au Ph: 8644 2186 Mob: 0467 772 406
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Comments and suggestions for chart design modifications can be made using the **Feedback Register Form** and sent to:

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A process of review will be undertaken at 12 months post implementation of the charts.