

# PAIN PROTOCOL – BOLUS INTRAVENOUS OPIOID ADMINISTRATION IN POST ANAESTHESIA CARE UNIT (PACU) CHW

## PRACTICE GUIDELINE<sup>®</sup>

### DOCUMENT SUMMARY/KEY POINTS

- This pain protocol is only for use in PACU CHW
- Only pre-filled syringe of [Fentanyl](#)<sup>1</sup> (50micrograms/10ml) provided by pharmacy or nurse prepared [Oxycodone](#)<sup>1</sup> (2milligrams/10ml) syringe are to be used in conjunction with this protocol.
- Registered Nurses (RN's) must complete the Intravenous (IV) opioid Clinical Skills Assessment (CSA) before use of this protocol.

### CHANGE SUMMARY

- Morphine pre-filled syringes removed from protocol.
- IV Oxycodone added to the protocol.
- Guideline added for oral Oxycodone following IV Oxycodone pain protocol.
- Title change – previous title being *Intravenous Opioid Administration in Todman and Middleton Post Anaesthetic Care Units – CHW*.

This document reflects what is currently regarded as safe practice. However, as in any clinical situation, there may be factors which cannot be covered by a single set of guidelines. This document does not replace the need for the application of clinical judgement to each individual presentation.

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|------------------------|--|------------------------------------|
| <b>Approved by:</b>    | SCHN Policy, Procedure and Guideline Committee |                                    |
| <b>Date Effective:</b> | 5 <sup>th</sup> of February 2024               | <b>Review Period:</b> 3 years      |
| <b>Team Leader:</b>    | Staff Specialist                               | <b>Area/Dept:</b> Anaesthetics CHW |

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This Guideline may be varied, withdrawn or replaced at any time.

## READ ACKNOWLEDGEMENT

- This document should be read by Anaesthetists, PACU nurses and pharmacist at CHW

This document reflects what is currently regarded as safe practice. However, as in any clinical situation, there may be factors which cannot be covered by a single set of guidelines. This document does not replace the need for the application of clinical judgement to each individual presentation.

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## IV Opioid Pain Protocol administration in PACU - CHW

- IV opioids must be prescribed on Electronic medical record (eMR) by an Anaesthetist - this includes consultants, fellows and registrars.
- Only RN's in PACU who have been assessed competent in administration of IV opioids are allowed to use this protocol.
- Only fentanyl pre-filled syringes from pharmacy with the following concentration should be used:
  - Fentanyl 10mL syringe of concentration 5micrograms/mL (i.e.50micrograms of fentanyl in 10mL of 0.9% sodium chloride)
- At the time of updating this protocol, oxycodone (2milligrams/10ml) could not be provided by the pharmacy due to its short shelf life.
- Oxycodone syringes need to be prepared by two accredited RN's or an Anaesthetist and an RN. (10ml syringe of concentration 200micrograms/mL i.e., 2milligrams of oxycodone in 10mL of 0.9% sodium chloride)
- RN administered IV opioid bolus order is only for patients more than **1 year old AND more than 10kg.**

### 1. Prescribing the PACU pain protocol

- The PACU pain protocol can only be ordered on the post-operative inpatient powerplan on eMM.
- The dosing weight of the patient must be entered prior to prescribing the pain protocol on eMR.
- Select 'Fentanyl' pre-filled syringe or 'Oxycodone' nurse prepared syringe.
- The administering dose is displayed as volume of drug in millilitres, the microgram dose should also be confirmed by prescriber.
- The order will be automatically discontinued 4 hours after it has been ordered.

### 2. Procedure

- RN administered IV opioid doses once prescribed on eMR, appear as a PRN order.
- IV opioid boluses are to be used for inadequate analgesia in accordance with the following pain score criteria and flow chart in Appendix 1:
  - Behavioural Pain (FLACC) more than 3
  - Facial pain score more than 3
  - Numerical rating of pain score more than 3

- Two RN's or an Anaesthetist and an RN are required to administer IV opioid boluses in line with current Sydney Children's Hospitals Network (SCHN) guidelines on ['Medication Administration'](#)<sup>2</sup> and [Accountable Medications Management](#).<sup>3</sup>
- The fentanyl prefilled syringe or oxycodone ampoule must be checked out against the patient's name at the Automated dispensing cabinet (ADC) or documented in the S8 drug register.
- The patient's identification label should be affixed to the fentanyl prefilled syringe as soon as it is removed from the packaging.
- The oxycodone 2mg/10ml syringe is prepared by 2 RN's or an Anaesthetist and an RN as follows:
  - Sign out oxycodone ampoule strength 10mg/ml from ADC or S8 drug register.
  - Using a 1ml syringe, draw up 0.2ml of 10mg/ml strength Oxycodone.
  - Add the 0.2 ml (2mg) of oxycodone to 0.9% sodium chloride to make a total of 10ml. (Concentration 2mg/10ml).
  - Replace drawing up needle with a red sterile cap as per Aseptic Non-Touch Technique (ANTT).
  - Complete all details on a blue IV medication label<sup>4</sup> and apply to syringe.
  - For patient's more than 50kg consider preparing a second syringe.
- Using ANTT transfer the correct dose volume from the 10ml opioid syringe to the administration syringe using an appropriate aseptic transfer device e.g. BBraun Fluid dispensing connector.

### 3. Dosing Table

|                              | Concentration                             | Dose                                   | Minimum dose interval | Max dose volume        | Max doses before review |
|------------------------------|---|--|-----------------------|------------------------|-------------------------|
| <b>Prefilled Fentanyl</b>    | 50 micrograms in 10 ml<br>5 micrograms/ml | <b>0.5microgram/kg</b><br>(= 0.1ml/kg) | 5 mins                | 5ml<br>(25 micrograms) | 3                       |
| <b>RN prepared Oxycodone</b> | 2mg in 10 ml<br>200 micrograms/ml         | <b>20micrograms/kg</b><br>(= 0.1ml/kg) | 5 mins                | 5ml<br>(1 milligram)   | 3                       |

- Administer bolus dose as per above dosing guidelines, Appendix 1 flowchart and SCHN Medication Administration Practice Guideline.
- Once a dose is delivered vital observations should be continuously monitored and documented every 10 minutes for 30 minutes following the last bolus.
- Two RN's or an Anaesthetist and an RN must sign off the order for the drug dose on eMM.
- The opioid syringe should be capped with a red sterile syringe cap between bolus doses, and a new administration syringe used for each dose.
- If the patient has required three bolus doses of the PACU pain protocol, please inform the prescribing anaesthetist to assess if escalation to two further boluses, oral analgesia or an opioid PCA/NCA/infusion is required.
- Any unused portion of the opioid must be expelled into a sharps container in the presence of a witness, documented in the ADC or S8 drug register as per SCHN [Medication administration](#)<sup>2</sup> and [Accountable Medications Management](#)<sup>3</sup> Practice Guidelines.

### 3.1 Oral Oxycodone following IV opioid pain protocol

- Consider administration of oral Oxycodone if pain persists following a minimum of 15mins after IV Oxycodone pain protocol administration if:
  - Sedation score is  $\leq 2$  and
  - The respiration rate is in the blue or white zone of the SPOC**OR** at the discretion of the treating Anaesthetist.

## 4. Monitoring

- Patient monitoring and documentation in eMR should be as follows;
  - Respiratory rate
  - Oxygen saturation
  - Pulse rate
  - Sedation score
  - Pain score

## 5. Discharge from PACU

Following the last bolus administration of IV fentanyl or oxycodone PACU pain protocol:

- Patients can be discharged to the ward from PACU after a minimum of 30mins
- Day stay patients can be moved from level 1 to level 2 PACU after a minimum of 30mins.

- Day stay patients may be discharged home after a minimum of 1 hour.
- The patient must also fulfil criteria for discharge in line with Between The Flags, modified Aldrete score, Nurse Initiated Discharge Criteria and PACU policy.

If oral Oxycodone is given after activation of IV oxycodone pain protocol, patients may be discharged to the ward after 30 minutes or home after 1 hour.

## References

1. Australian Medications Handbook. (2023). AMH Children's dosing companion. <https://childrens.amh.net.au.acs.hcn.com.au/>
2. Sydney Children's Hospitals Network. (2020). *Medication Administration Practice Guideline*. <http://webapps.schn.health.nsw.gov.au/epolicy/policy/5024/download>
3. Sydney Children's Hospitals Network. (2020). *Accountable Medications Practice guideline*. <http://webapps.schn.health.nsw.gov.au/epolicy/policy/4174/download>
4. Australian Commission on Safety and Quality in Healthcare. (2015). *National Standard for User Applied Labelling of Injectible Medications, Fluids and Lines*. Sydney: ACSQHC

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# Appendix 1: Flowchart – PACU Pain Protocol

## IV OPIOID PACU PAIN PROTOCOL FLOWCHART

