Intravenous Opioid Administration Policy

1. Background

Patients with pain must receive timely, effective and appropriate analgesia titrated according to response.

Sufficient staffing in the clinical area is required in order to provide a safe environment during the administration of intravenous (IV) opioids and the post-administration observation period. Emergency equipment and suitably qualified staff must be readily accessible and available in the event of a patient's condition deteriorating.

This policy is to be read in conjunction with the WA Country Health Service (WACHS) Medication Administration Policy and the WA health system Operational Directive 0647/16 National Standard for User-Applied Labelling of Injectable Medicines, Fluids and Lines (13 January 2016).

2. Policy Statement

This policy applies to the use of intravenous opioids for the management of pain.

IV opioids for pain management are administered in WACHS using the following methods:

- Intermittent IV bolus administration
- Patient controlled IV analgesia (PCIA)
- Nurse* controlled IV analgesia (NCIA) - opioid infusion
- PCIA with background IV opioid infusion.

* Where 'Nurse' is used in describing methods of administration – rural context of practice includes midwives.

Safety and Quality

Use of commercially prepared medicines for IV opioid therapy should be maximised ensuring no additions/dilutions are made to commercially prepared solutions. This should:

- minimise the likelihood of medication errors
- reduce confusion between the different types and strengths of opioid solutions
- reduce the need for complex drug calculations
- improve consistency for staff
- assist with minimising contamination by decreasing the potential number of key parts and site (in relation to the maintenance of asepsis).

IV opioid infusions and PCIA must be delivered via a dedicated pain management delivery device, which is locked both physically and electronically to avoid programming or tampering. If a medication bag is used, the bag must be contained in a locked box to avoid siphoning.

Additional safeguards include:

- operation in accordance with manufacturer's instructions for device use.
- standardised device across site and/or region.
- standardised configuration of device across site and/or region.
- use of devices purchased from the HCNS 328612 Electro Medical Equipment contract only.

The giving sets for PCIA device must have anti-siphon, anti-reflux valves as per safe equipment guidelines outlined in the WA Health system Operational Directive 0658/16 Prescription and Management of Patient Controlled Intravenous Analgesia (18 February 2016) and attached to a dedicated IV cannula or dedicated maintenance line.

Principles for all methods of IV opioid administration

2.1 The opioid must be managed in accordance with the WACHS Medication Administration Policy.

2.2 Labelling must adhere to the WA Health system Operational Directive 0647/16 National Standard for User-Applied Labelling of Injectable Medicines, Fluids and Lines (13 January 2016).

2.3 Vital signs are recorded on the age appropriate observational and response chart (ORC). Local escalation procedures are aligned with the "actions required" described on the escalation protocol section / zone criteria section (paediatric charts), in line with the WACHS Clinical Escalation and Code Blue Medical Emergency Responses (MER) Policy

2.4 Management of side effects:

Patient signs /symptoms	Management and actions
Apnoeic or pulseless	• Activate a Medical Emergency Team or response as appropriate to site • Cease IV opioid administration, commence basic life support, administer IV Naloxone • Urgent medical advice should be sought and arrangements made for ongoing monitoring and care as the patient may require a naloxone infusion (the duration of a naloxone injection may be less than that of the opioid). • Consider if transfer to higher care is needed

Respiratory depression (significant sedation - as indicated by the trigger points on the ORCs)	• Cease IV opioid administration (remove PCIA hand piece from patient's reach if relevant) • Give oxygen 5L/min by Hudson mask • Attempt to wake patient with both verbal and / or physical stimulation • Call the prescribing medical officer/nurse practitioner or escalate as per local process in line with ORC
Confusion or agitation	• Cease IV opioid administration (remove PCIA hand piece from patient's reach if relevant) • Contact the prescribing medical officer / nurse practitioner
Persistent pain / inadequate analgesia	• Administer adjunctive pain medications if charted • Contact the prescribing medical officer / nurse practitioner
Nausea and vomiting	• Administer anti-emetics as charted • If charted anti-emetics are not effective, contact the prescribing medical officer / nurse practitioner
Additionally: Tachypnoea, hypotension, cyanosis or pallor	Require a medical review

2.5 Management of intravenous cannula is in accordance with the WACHS Vascular Access Devices Management Clinical Practice Standard and the WA Health system Mandatory Policy MP 0038/16 Insertion and Management of Peripheral Intravenous Cannulae in Western Australian Healthcare Facilities (Oct 2016).PIVAS is recorded on the WACHS MR179 WACHS Peripheral Intravenous Cannula Observation Record.

2.6 Additional principles for **PCIA and opioid infusions**:

2.6.1 Prescription and management is in accordance with the WA Health system Operational Directive 0658/16 Prescription and Management of Patient Controlled Intravenous Analgesia (18 February 2016).

2.6.2 Observation regimen and associated keys are outlined on the back page of the MR170.5 WACHS PCIA-IV Opioid Infusion Prescription and Additional Observation Chart.

2.6.3 Additional observations required are recorded on the MR170.5 WACHS PCIA-IV Opioid Infusion Prescription and Additional Observation Chart and the MR170.6 WACHS PCIA-IV Opioid Infusion Continuation Sheet.

2.6.4 Additional opiates/sedatives may only be prescribed in consultation with the anaesthetist or medical officer experienced with IV opioid analgesia.

2.6.5 Oxygen (if indicated) to be prescribed on the National Inpatient Medication Chart (NIMC) using the WACHS oxygen sticker.

2.6.6 After 24 hours a new medication cassette/syringe/bag is to be commenced as per the WACHS Medication Administration Policy.

2.6.7 If the IV cannula is dislodged or requires removal as indicated by the PIVAS score, the IV cannula is to be re-sited immediately to maintain pain management therapy.

2.6.8 Ensure that IV access is maintained for 3 hours post administration of last dose of opiate.

2.6.9 Discontinuation of IV opioid therapy:

- Is managed as per the WA Health system Operational Directive 0658/16 Prescription and Management of Patient Controlled Intravenous Analgesia
- Remaining opioid is disposed of as per the WACHS Medication Administration Policy
- Ensure completion of the post-cessation observations and documentation requirements as per the MR170.5 WACHS PCIA-IV Opioid Infusion Prescription and Additional Observation Chart
- Discharge cannot occur prior to completion of the post-cessation observations.

2.7 Additional principles for **intermittent IV opioid administration**:

2.7.1 Prescription of intermittent IV opioid is to be written on the PRN section of the NIMC. One active prescription of an opioid only on the NIMC at a time. Must include an incremental dose up to a maximum dose.

2.7.2 The patient must be reviewed by a medical officer/nurse practitioner if there are ongoing analgesic requirements following administration of the maximum prescribed dose.

2.7.3 The intravenous access device and/or IV lines must be flushed after each intermittent opioid administration with Sodium Chloride 0.9%.

2.7.4 To minimise the risk of overdose, patients should not commence using a PCIA or IV opioid infusion until a satisfactory level of pain relief has been achieved by intermittent bolus administration. This should be prescribed in consultation with a medical officer experienced in IV opioid analgesia.

2.7.5 Any unused opioid must be discarded, witnessed and entered in the Schedule 8 Register – as per the WACHS Medication Administration Policy.

2.7.6 Observations are to be recorded:

- pre-administration of each dose
- pain assessment to occur 3 minutely(Fentanyl) and 5 minutely (Morphine)
- post final dose of IV opioid - at 5mins, at 10mins and at 20mins

Paediatric units refer to 2.7.9.

2.7.7 Observations include:

- pain score
- blood pressure
- pulse
- respiratory rate

- oxygen saturation
- consciousness level.

2.7.8 Patients with continuous monitoring must have a record of the observation period associated with the IV opioid administration within their medical record.

2.7.9 Paediatric Units – Regional Resource Centres

Management of intermittent IV opioid administration is as per the Princess Margaret Hospital (PMH) for Children Intermittent Morphine Bolus Protocol for use in general ward areas (for infants >6mths, children and adolescents) – apart from the WACHS specific information listed below:

- Prescription as per section 2.7.1
- Preparation, checking and administration are in accordance with the WACHS Medication Administration Policy
- Observations are documented on the appropriate age WACHS Paediatric Observation and Response Chart (PORC)
- Consciousness level, respiratory rates and related escalation parameters are as per the WACHS aged appropriate PORCs.

2.7.10 Recovery Room:

- Administration and decision making for management of adults and paediatrics as per Appendix 1: Pain Protocol Adult and Paediatrics flowchart.

2.7.11 Critical care areas:

- Critical care areas include emergency departments (ED), emergency department short stay units (ED SSU), intensive care units (ICU) and high dependency units (HDU).
- The prescription is to include an incremental dose up to a maximum dose.
- Administration and decision making for management of adults and paediatrics as per Appendix 1: Pain Protocol Adult and Paediatrics flowchart
- Observations are recorded on the appropriate aged observation and response chart or ICU/HDU chart.

2.8 Transfer and discharge:

2.8.1 Patients must stay in the area where the dose was administered for a minimum of 20 minutes after an intermittent dose of IV opioid.

2.8.2 If Naloxone has been administered for excessive sedation, the patient must then remain for 30 minutes of observation post Naloxone administration before being transferred.

2.8.3 For paediatric patients in the recovery room – any infant/child/adolescent requiring greater than 5 doses of opioid protocol should stay in the recovery room for a minimum of 45 minutes post the last opioid dose.

2.8.4 Oxygen may be required for transfer as determined by the patient's condition. If so, prescription to be charted on the NIMC.

2.8.5 If observations are within safe parameters, patients for transfer to another area (including for investigations such as X-ray or CT scan) must be escorted by a nurse /midwife and

a) where additional support **is** available, the nurse/midwife escort must be current in basic life support, or

b) where additional support is **not** available (e.g. imaging departments or ambulance transfers), the nurse/midwife escort must be current in advanced life support and have airway support equipment available, including oxygen, suction and bag/valve/mask

2.8.6 Patients may be considered suitable for unescorted nursing intra/inter-hospital transfer or discharge home, after 60 minutes, in the absence of complications following administration of an intermittent IV opioid.

2.8.7 Patients must be advised not to drive, participate in unsupervised dangerous activities or sign legal documents for 6 hours post administration of intermittent IV opioids.

2.8.8 Discharge information:

- WA Therapeutics Advisory Group (WATAG) website (search under clinical guidelines and advisory notes) provides two resources:
  - Recommendations for prescribing analgesia on discharge following surgery or acute injury (Information for health practitioners preparing the patient for discharge)
  - Pain relief medications following surgery and injury (Information for patients preparing for discharge)
  - Procedure specific information sheets (PSIS) for health care providers at WACHS sites.

2.8.9 General discharge and transfer considerations as per WACHS Admission, Discharge and Intra-hospital Transfer Clinical Practice Standard.

3. Roles and Responsibilities

Regional Medical Directors and Regional Nurse Directors
Regional Medical Directors and Regional Nurse Directors are responsible for ensuring that all medical, nursing and midwifery staff involved with IV opioid administration have access to, and work within this policy

Medical Officers
Medical officers are to safely practice within their scope of practice and to seek advice from senior medical officers/anaesthetic doctors if they are junior medical officers or a medical officer inexperienced in IV opioid analgesia.

Nurse Practitioners
Nurse Practitioners prescribe and administer in accordance with their scope of practice and practicing area(s) / location(s). Refer to the requirements of the acute care

WACHS Nursing and Midwifery Practice Framework Scope of Practice Tools Part 2 and/or Part 3 and the procedural information for all methods of IV opioid administration in Appendix 2.

Registered Nurses and Midwives
Registered nurses (RNs) are to practice safely within their scope of practice and are to refer to the requirements of the acute care WACHS Nursing and Midwifery Practice Framework Scope of Practice Tools Part 2 and/or Part 3 and refer to the procedural information for all methods of IV opioid administration in Appendix 2.
The opioid therapies are the exclusive responsibility of an RN or midwife.

Enrolled Nurses
Enrolled nurses (ENs) may care for patients under the delegated authority of an RN or midwife. In the context of IV opioid administration within WACHS, the role of the EN is to:

- observe and monitor the effectiveness of the regime for the patient
- observe and monitor for side effects.

It is expected that the EN will work within their scope of practice at all times. They are to escalate to the RN / midwife as per the clinical parameters defined in the prescription orders/records and the recognition and response observation charts (ORC) or if concerned about the patient's condition.

ENs are to refer to the requirements of the acute care WACHS Nursing and Midwifery Practice Framework Scope of Practice Tools Part 2 and/or Part 3 and the procedural information for all methods of IV opioid administration in Appendix 2.

All Staff are required to work within policies and guidelines to make sure that WACHS is a safe, equitable and positive place to be.

4. Compliance

Failure to comply with this policy may constitute a breach of the WA Health Code of Conduct (Code). The Code is part of the Employment Policy Framework issued pursuant to section 26 of the *Health Services Act 2016* (HSA) and is binding on all WACHS staff which for this purpose includes trainees, students, volunteers, researchers, contractors for service (including all visiting health professionals and agency staff) and persons delivering training or education within WACHS.

WACHS staff are reminded that compliance with all policies is mandatory.

5. Evaluation

Evaluation, audit and feedback processes are to be in place to monitor compliance.

The Datix Clinical Incident Management System (Datix CIMS) form is to be used to review trends and investigate incidents as required. To assist with trending, use Tier 1:

Medications and identify relevant Tier 2 and 3 categories. Include ”opioid” in the free text description box.

6. Standards

National Safety and Quality Health Care Standards (First edition): Standard 1 - Governance for Safety and Quality in Health Service Organisations criteria 1.1.1, 1.1.2 and 1.10.1 and Standard 4 - Medication Safety, criteria 4.1, 4.11

National Safety and Quality Healthcare Standards (Second edition): Standard 1 - Clinical Governance criteria 1.7, 1.23 and Standard 4 - Medication Safety criteria 4.1, 4.3, 4.13-15

7. Legislation

Medicines and Poisons Act 2014 (Perth, Western Australia Government)

Medicines and Poisons Regulations 2016 (Perth, Western Australia Government)

8. References

Child and Adolescent Health (CAHS): PMH Intermittent morphine bolus protocol for use in general ward areas (for infants >6mths, children and adolescents). Accessed: 15/12/2017

Child and Adolescent Health (CAHS): PMH Protocol for the use of intermittent opioid analgesia in the Post Anaesthetic Care Unit (PACU) (for infants >6mths, children and adolescents). Accessed: 15/12/2017

Fiona Stanley Hospital (12/2015) Intermittent Intravenous Opioid Administration in the Emergency Department Clinical Policy. Accessed: 15/12/2017

Fiona Stanley Hospital (10/2014) Opioid Administration in the Post Anaesthetic Care Unit Clinical Policy. Accessed: 15/12/2017

The Free Dictionary “opioid” and “bolus” Accessed: 15/12/2017

WACHS Epidural/Spinal Analgesia Management Policy

9. Related Forms

MR170.5 WACHS PCIA-IV Opioid Infusion Prescription and Additional Observation Chart

MR170.6 WACHS PCIA-IV Opioid Infusion Continuation Sheet

MR179 WACHS Peripheral Intravenous Cannula Observation Record

10. Related Policy Documents

WACHS Admission, Discharge and Intra-hospital Transfer Clinical Practice Standard

WACHS Clinical Escalation and Code Blue Medical Emergency Responses (MER) Policy

WACHS Medication Administration Policy

WACHS Vascular Access Devices Clinical Practice Standard

11. Related WA Health Policies

MP 0038/16 Insertion and Management of Peripheral Intravenous Cannulae in Western Australian Healthcare Facilities

OD0647/16 National Standard for User-Applied Labelling of Injectable Medicines, Fluids and Lines

OD 0141/08 Code of practice for the handling of Schedule 8 medicines (drugs of addiction) in hospitals and nursing posts

OD 0658/16 Prescription and Management of Patient Controlled Intravenous Analgesia

12. WA Health Policy Framework

Clinical Governance, Safety and Quality Policy Framework

13. Appendices

Appendix 1: Pain Protocol Adult and Paediatric Flowchart

Appendix 2: Administration Procedure for IV Opioids

This document can be made available in alternative formats on request for a person with a disability

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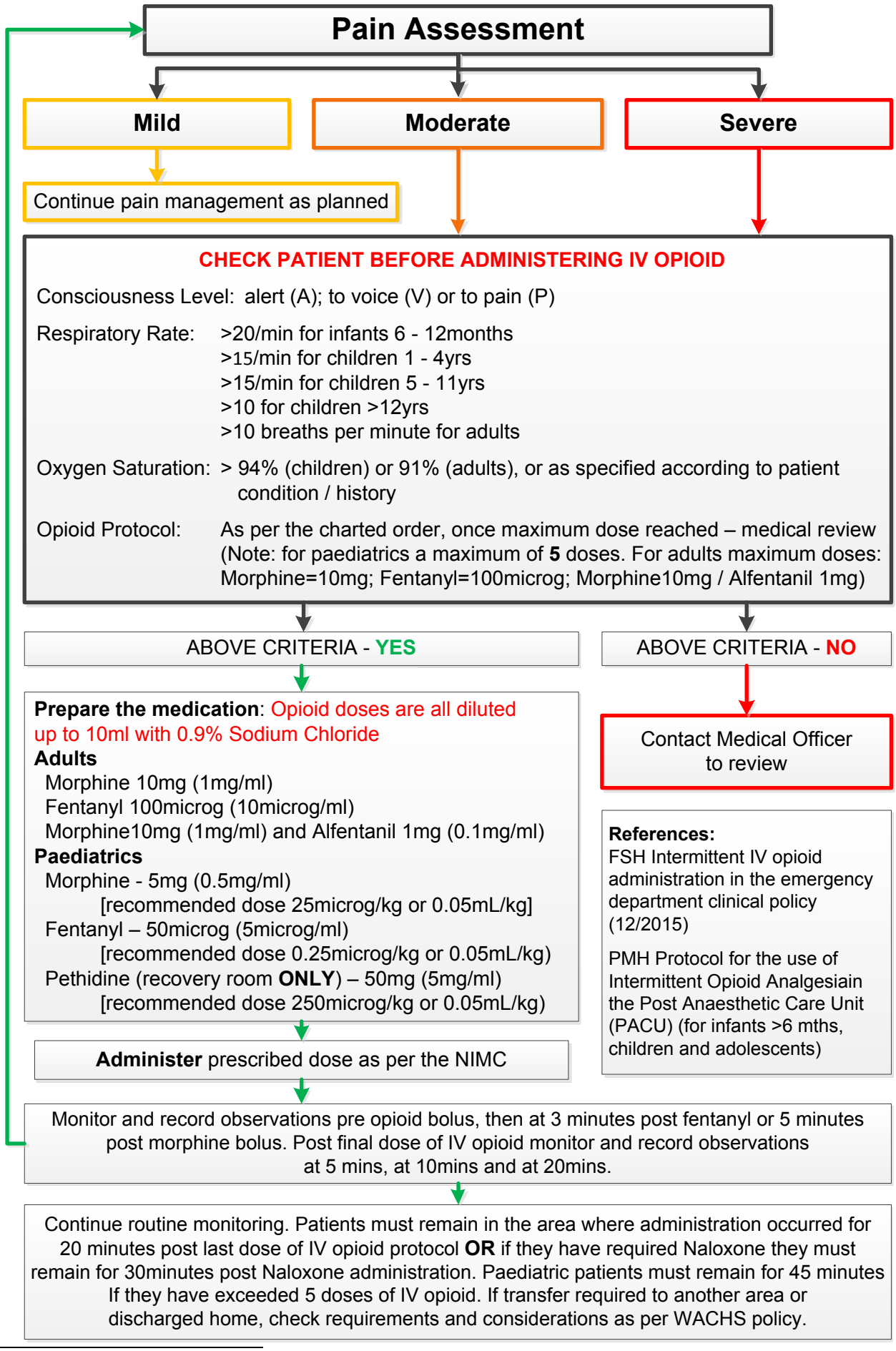
Appendix 1: Pain Protocol Adult and Paediatric



Appendix 2: Administration Procedure for IV Opioids

1. PROCEDURAL INFORMATION

All medicines are to be prescribed, prepared, checked, administered and discarded in accordance with the following:

- WACHS Medication Administration Policy
- WA health system Operational Directive 0647/16 National Standard for User-Applied Labelling of Injectable Medicines, Fluids and Lines (13 January 2016)
- WA health system Operational Directive 0658/16 Prescription and Management of Patient Controlled Intravenous Analgesia (18 February 2016)

Compliance with the 5 moments for hand hygiene in all aspects of the procedure is required 

Emergency equipment and medicines (including Naloxone) are to be readily available in the event that the patient's condition deteriorates

2. PROCEDURE for all methods of IV opioid administration:

Professional responsibilities:

- Adhere to the Nursing and Midwifery Board of Australia's Scope of Nursing / Midwifery Practice decision-making framework.
- Liaise with Medical Officer regarding patient condition.
- Understand the responsibilities and scope of delegation and acceptance of delegated care in relation to monitoring patients receiving IV opioid analgesia.
- Understand who maintains responsibility for the PCIA and/or opioid infusion.
- Understand the scope of practice for nurses and midwives within the policies and practice standards related to IV opioid analgesia and use of the MR170.5 WACHS PCIA-IV Opioid Infusion Prescription and Additional Observation Chart and the MR170.6 WACHS PCIA-IV Opioid Infusion Continuation Sheet.

Preparation of therapy:

- Hand hygiene 
- Perform IV cannula assessment and check the patency of the IV and document findings – escalate for reinsertion if not viable.
- Assess and record the required observations prior to the administration of the opioid - escalate if indicated.
- Check prescription order with prescriber / nurse / midwife.
- Hand hygiene 
- Assemble the required equipment – including hand piece for PCIA (where relevant).
- The prescriber / skilled RN / midwife:
  - prepare the medication cassette / syringe/bag or medicines for administration using principles of aseptic non-touch technique (ANTT)
  - label the syringes/medication cassette/bag as per labelling guidelines.

- For PCIA / infusion, the prescriber / skilled RN / midwife:
  - programs the dedicated pain management device as per the prescription orders
  - attaches the medication cassette / syringe/ bag and primes the line as per manufacturer guidelines
  - is aware of single use **and** single spike only principles for medication cassettes / syringes / bags.

Commencing therapy:

- The prescriber / skilled RN/ midwife at the bedside with the checker:
  - adhere to the 5 moments of hand hygiene
  - perform patient identification, procedure matching, and correct injection site
  - for PCIA / infusion - connect the line to the patient – maintain ANTT
  - commence / administer the therapy as per charted orders (prescriber / skilled RN / midwife only)
- Ensure oxygen is in place if charted on the NIMC
- Provide patient education in regard to reporting pain and nausea. If PCIA - include the use of handpiece. Key points to include:
  - **only** the patient may press the hand piece to deliver the dose
  - relatives must be advised that they are not to press the hand piece on behalf of the patient.
- Ensure the required post-commencement/post-administration observations and monitoring are completed and recorded in the patient's medical record.

Ongoing requirements:

- Handover check of the 6 rights of medication administration to be completed and documented on the MR170.5 WACHS PCIA-IV Opioid Infusion Prescription and Additional Observation Chart and the MR170.6 WACHS PCIA-IV Opioid Infusion Continuation Sheet at the beginning of each shift change or where responsibility of care is transferred between staff and where the dedicated pain management device or locked box is opened or adjusted.
- Knowledge of side effects and complications that could occur following administration/commencement of therapy.
- Awareness of the actions and escalation in response to potential side effects/ complications.
- Knowledge of actions if pain is not controlled or is unresolved following intervention(s) – escalate appropriately.
- For NCIA – infusion – knowledge of the process for administration of nurse initiated bolus and monitoring/observations requirements post bolus and if the infusion rate has changed. If the dedicated pain management device has an access code – understands **not** to verbalise the access code for the device out loud (decreases risk of potential tampering).
- Understanding that there may be options available to the patient if they are experiencing unwanted side effects from the PCIA / infusion medication(s) e.g. regular anti-emetics / opiate rotation - rule out other causes of the side effects e.g. type of surgery, sepsis, post-op delirium, renal failure etc. Discuss this with the prescriber / Acute Pain Service (APS).

- For PCIA / infusion – knowledge of the process for replacing cassette / syringe / bag and how often this should occur.
- Consider requirements if transferring patient to another area/going home as per policy.

Ceasing therapy:

Prior to cessation of PCIA / opioid infusion:

- a decision to cease is needed from the prescriber/APS medical officer – ensure this has occurred before ceasing. The cessation order is written on the MR170.5 WACHS PCIA-IV Opioid Infusion Prescription and Additional Observation Chart either by the prescriber or by a medical officer, RN or midwife who has taken a verbal order from the prescriber
- if the IV cannula is dislodged or requires removal, discuss IV cannula replacement/ therapy continuation with the prescriber / APS team
- alternate analgesia to be prescribed (ensure that patient is tolerating oral diet and fluids before prescribing / commencing oral analgesia) - consider at the time of cessation if the patient needs to be administered oral analgesia at that time
- consider the timing of discontinuation in relation to when the most support is available to the patient (e.g. when most nursing/midwifery staff are rostered on duty and prescribing practitioners are available)
- for infusions/PCIA. the volume remaining is disposed of by two nurses/midwives (one of whom must be an RN or midwife, then recorded and signed for on the MR170.5 WACHS PCIA-IV Opioid Infusion Prescription and Additional Observation Chart
- ensure completion of observations and documentation requirements post-cessation (i.e. for three hours)
- ensure that IV access is maintained for three (3) hours post administration of last dose of opiate

Intermittent IV opioids:

- Once therapy is ceased - disposal of the remaining opioid for intermittent IV opioid administration is as per the WACHS Medication Administration Policy
- For patients being discharged, the patient must be advised not to drive, participate in unsupervised dangerous activities or sign legal documents for 6 hours post last dose of the opiate.