Adult Patient Controlled Analgesia (PCA)

Contents

Policy

This policy is to ensure the management of Patient Controlled Analgesia (PCA) is performed in a standardised manner using best practice guidelines by approved personnel and to ensure the patient has an understanding of the management of the PCA pump and can safely self-titrate analgesia to meet their individual requirements

Scope

RN/RM with Peripheral IV Endorsement

(or for administration via CVAD endorsement)

PCA management is overseen by the Acute Pain Management Service in the Christchurch Hospital Campus and Gynaecology Ward Christchurch Women's and Burwood Hospital. PCA management in other divisions is managed by the anaesthetist.

Associated Documents

PCA Patient Information sheet Ref: 2403017
PCA Treatment sheet Ref: 2402242
Adult Surgical Based IV Incremental Opioid Policy
Online PCA Education Package
Registered Nurse Assisted (NAA) Dosing of PCA Adults
Intrathecal (Spinal) Morphine Guidelines Adult

Criteria

- Suitable candidates for PCA pump are those patients able to understand and comply with instructions as assessed by the multidisciplinary team.
- PCA must be prescribed by an anaesthetist on the PCA Treatment Sheet C160012
- PCA opioid 100 mL bags are premixed – Fentanyl 20mcg/mL OR Morphine 1mg/mL. Additive details are recorded on the PCA prescription sheet. Any drug additives can be added in the usual preparation area for IV therapy. The procedure is in the Appendix below.
- Naloxone must be readily available
- Ensure concurrent IV fluids are prescribed
- Ensure concurrent Oxygen therapy is prescribed as necessary
- An appropriately endorsed RN/M will have responsibility of patients with a PCA
- The patient is the only person who should push the patient control button (refer to nurse assisted analgesia policy as required).
- The key to the PCA pump must be kept with the areas drug keys.

Please Note: The patient is not to leave the ward area with a PCA in progress unless they are undergoing a legitimate procedure e.g. X-ray

Patient and Whanau Education

The patient/family/whānau will be educated prior to commencement of the PCA including

- The rationale of PCA.
- Use of the pump.
- Explanation of safety features.
- Explanation of monitoring, e.g. pain scores and sedation scores.
- How you can contact the nurse

- Likely duration of therapy.
- The patient will be given the PCA patient information sheet.

For all areas covered by the Acute Pain Management Service
Patients commencing a PCA infusion must be referred to the Acute Pain Management Service to ensure they receive follow up supervision, education and entrance to the Acute Pain Management Service.

Procedural Considerations

Pre Administration

- For the medical/surgical cluster of Christchurch Hospital PCA pumps are available from PACU for infusions to be commenced on the ward. Replacement batteries are available from PACU if not in Ward stock.
- Follow the Double independent Checking Procedure and Definitions Roles and Responsibilities documents
- For PCA infusions, an extension set with an antisyphon value must be used. The anti-reflux side port prevents opioid backtracking to the IV fluids.
- Prime the giving set with the prescribed opioid solution.
- Prime the anti-reflux side port with 5mL normal saline and attach the concurrent IV fluids to this side port.

Patient Monitoring

The following observations should be recorded hourly for the first 12 hours then four hourly if stable, to monitor medication effects. Follow the NZ Early Warning Management System as required.

- Observations must include:
    - Pain score, 0-10
    - Sedation score, 0-3
    - Respiratory Rate
    - Pulse
    - SpO2

Exceptions:

- Basal infusion rate with which recordings must be continued hourly
- See Intrathecal policy for patient monitoring requirements for Intrathecal Morphine.

  When the prescriber deems more intensive recordings are appropriate or where the NZ Early Warning Score Management Pathway has been activated

Please Note: Continuous opioid infusions (Basal rates) are more likely to cause respiratory depression.

Inadequate analgesia (pain scores 7 -10) requires review by medical staff/APMS staff. Call the APMS/Duty Anaesthetist or the On-Call Anaesthetist.

Bag Change and Programme Change

- Any PCA prescription alterations the staff initiating the new prescription must do this according to the double independent checking procedure and Roles and Responsibility Policy
- Document date and time of bag change, programme change and shift total on the PCA prescription sheet C160012
- PCA pumps require zeroing of the "Total Dose" at the end of each shift.

Please Note: When changing bags, always clamp tubing to prevent inadvertent bolus being administered.

Documentation

- As per bag or programme change as above.
- All observations will be recorded in Patient Track where used.
- The following must be documented on the PCA chart.
  - Number of administered doses and number of attempts (Inj/Att).
  - Total dose per shift.

Discontinuation of PCA

- Ideally PCA should be discontinued in the morning after consultation with the Acute Pain Management Service/Duty Anaesthetist
- When PCA is discontinued, any remaining medication must be discarded, and the amount documented by two nurses in the Controlled Drug Register. To establish the amount discarded calculate from the pump screen how much drug is remaining in the bag. The tubing amount is inclusive of the pump total.

Please Note: Ensure adequate alternative analgesia has been charted before discontinuing PCA infusion.

Measurement

APMS review of each individual patient daily

Incident management process

References

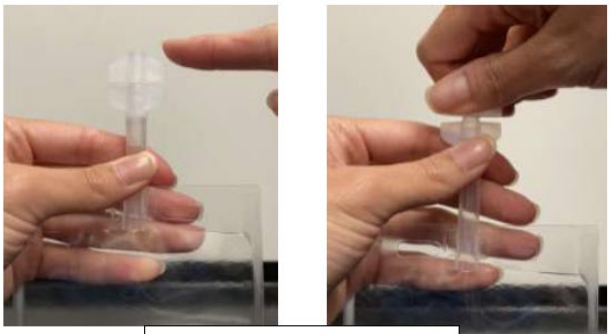
Acute Pain Management Scientific Evidence (5th ed.) National Health and Medical Research Council (2020) Australian Government

McIntyre, P.E Shug, S.A., Acute Pain Management. A practical guide (3rd ed.) 2015, Saunders

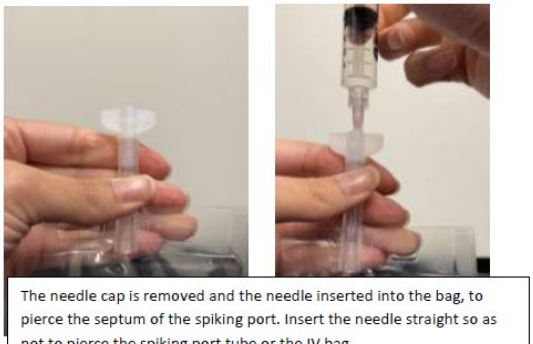
Policy Owner	Acute Pain Management Service Nurse Consultant
Policy Authoriser	Executive Director of Nursing & Chief Medical Officer
Date of Authorisation	March 2021

Appendix – Procedure for additives

ASEPTIC NON-TOUCH TECHNIQUE MUST BE USED AT ALL TIMES

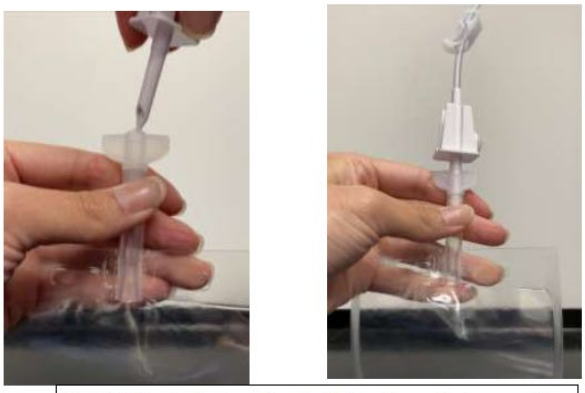


Twist off butterfly is removed from the spiking port

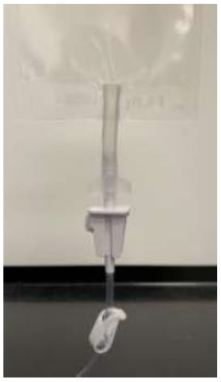


The needle cap is removed and the needle inserted into the bag, to pierce the septum of the spiking port. Insert the needle straight so as not to pierce the spiking port tube or the IV bag.

The syringe plunger is depressed to add the medication to the bag and the needle removed.



While holding the bag in one hand with the spike port facing upwards to prevent spills, the other hand picks up the spike port, aseptically remove the cover and fully insert the spike into the bag.



Gently invert the bag 3-6 times to ensure mixing.

Acknowledgement: Biomed developed procedure approved by CDHB and Infection Prevention and Control.