Appendix H
Commencement process: Patient Controlled Analgesia (PCIA)

PCIA commencement process

Equipment

1. Intravenous Fluids: Patients with PCIAs require a minimum of 10mLs per hour Sodium Chloride via a hydration infusion pump. Intravenous Infusion prevents cannula occlusion and maintain PCIA drug flow to the patient.
2. The intravenous line being inclusive of anti-reflux /anti- syphon (one way) valve. Appropriately labelled. Medication Labels refer CPP0222 (Diagram 1)
3. This may require use of an extension set with anti-reflux /anti-syphon (one way). Appropriately labelled. (Diagram 1)
4. The PCIA can be run with an existing intravenous infusion, if compatible.
5. The PCIA analgesic clear line should be attached to the side arm of the intravenous maintenance line via anti-reflux valve extension tubing. (See photo's)

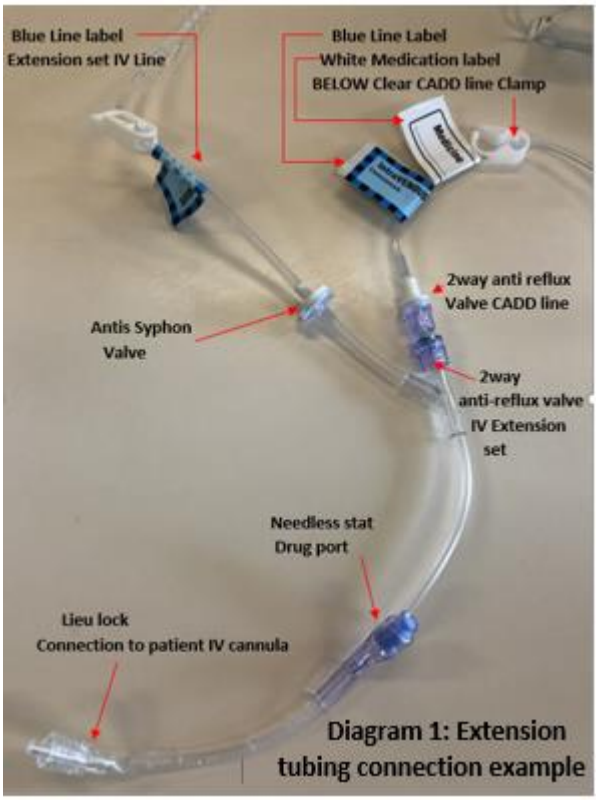


Diagram 1: Extension tubing connection example

Analgesic Device requirement:

1. Intravenous specific analgesic device i.e., CADD Solis grey faced pump (Diagram 2).
2. Security shell. Lockable
3. Lockable analgesic device for both hardware and software. i.e., CADD key required for All unlocking and locking of the CADD Solis device. Key located in the DD safe of clinical area.
4. Designated pump specific clear administration set with anti-syphon valve.
5. Remote dose cord (handset button for PCIA).

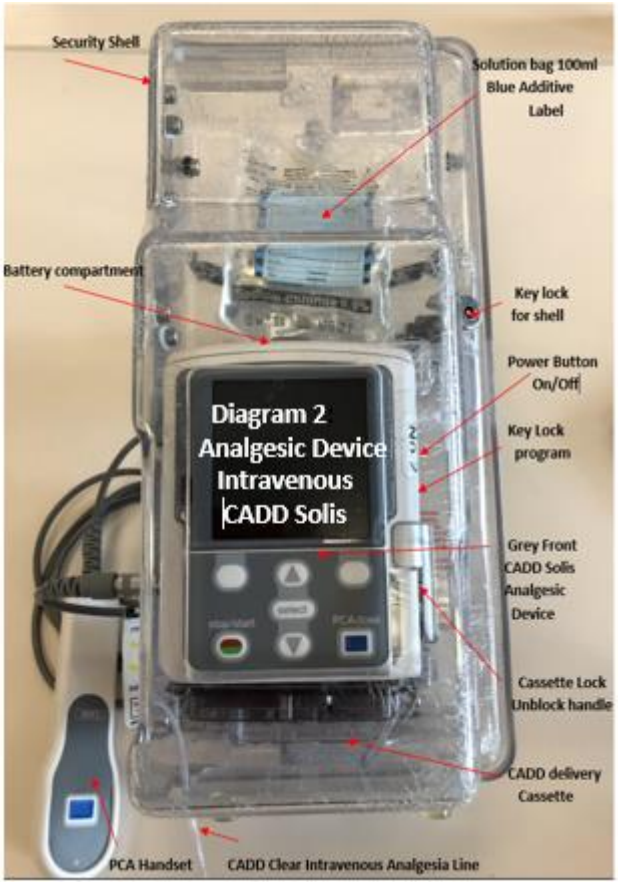


Diagram 2 Analgesic Device Intravenous CADD Solis

Solution Options:

Standard general adult solutions using 100 ml sodium chloride bag, the following may be added:

Drug	Opioid Dilution	Bolus Dose	Lockout
PCIA In order of preference			
Morphine PCIA	100 mg diluted to a total volume of 100 mL with sodium chloride 0.9%	1 mL = 1 mg	5 min
Oxycodone PCIA	100 mg diluted to a total	1 mL = 1mg	5 min
Fentanyl PCIA	1000 microg diluted to a total volume of 100 mL with sodium chloride 0.9%	1 mL = 10 microg	5 min
Ketamine Infusion	200mg diluted to a total volume of 100ml with sodium chloride 0.9%	1 mL = 2mg	Incremental increase = 2mg hourly within prescribed range; titrated to analgesia & side effects

 # Refer to individual guidelines for relevant precautions/contraindications etc.

Note: In exceptional circumstances, only the nominated Consultant Anaesthetist for the Acute Pain Service or Anaesthetic Registrar has the authority to prescribe outside the above standard orders. As would be the case in paediatric PCIA prescribing.

Prescribed drug in solution. (Opioids or ketamine either premix or in component parts, drug requiring being added in sodium chloride bag 100ml bag)

Medication Pain Control Intravenous order form MR/675, complete

1. The anaesthetist or appointed medical officer will prescribe an analgesic infusion or PCIA on the medication pain control - Intravenous form MR/675. refer Appendix G
2. Only one analgesic (opioid or ketamine) prescription per MR 675 form

Paediatric solutions per CADD Solis protocols.

Consultant Anaesthetist for the Acute Pain Service or Anaesthetic Registrar has the authority to prescribe outside the above standard orders (general adult) to individualise paediatric requirement using the MR 675.

Commencing pump program parameters

- **Profile options:**
  - General Adult,
  - Maternity, (not included in CPP0069)
  - Paediatric.
- **Therapy**
  - Intravenous,
  - PCIA only,
  - Continuous *(rarely used for Opioids, critical care areas tend to use Alaris pumps instead),*
  - Continuous + PCIA *(rarely used, historically used for opioid tolerant patient without oral route).*
- **Qualifiers (used in Paediatrics)** age and weight parameters.
- **Drug therapy**
  - Morphine Fentanyl, Oxycodone, Ketamine,
  - Paediatric drug formulae e.g. morphine 0.5mg/kg (<50kg patient: dilute to 50ml sodium chloride, bolus dose = 20mcg/kg(=2ml) *(infrequently used)*
  - Ketamine paediatric (rarely used)

Analgesia Observation Chart SAMPLE MR/590 Refer Appendix E

Specific observation chart required to record analgesic device use and patient response to analgesic deliver.

Patient Selection criteria

1. All patients requiring analgesia via the intravenous CADD Solis pump system will be referred to, assessed, and reviewed by APS.
2. Patient referrals are via on-call Anaesthetic Registrar (Phone: *280) after medical team complete MR 315 "consult referral'.

Practice Point: (Refer to indications above)

- Nurse (controlled) analgesia**, prescribed by APS medical team. When prescribed, the patient is not given the handset is it placed on the Intravenous pole with Nurse Control Handset label attached.
- Prescription MR675 is adjusted to read insert "Nurse" and "Patient" is crossed out. This is highlighted by Nurse controlled handset sign slipped over handset which is kept with pump.
- Patient selection for Intravenous PCIA is a collaborative decision between nursing, medical staff and the patient.

Adaption to MR 675 to accommodate Nurse control analgesic device

Analgesic Pump Settings
NURSE
~~Patient~~ Controlled Analgesia demand dose
Lockout Interval

Patient education:

- Ideally initiated in pre-operative clinic/ preadmission or pre-procedure in the Anaesthetic bay for general adult patients by the anaesthetist / medical officer and / or nursing staff.
- An information pamphlet (CID0129) on the use of PCIA is available during the pre-admission clinic attendance.
- Ongoing patient education/explanation at PCIA commencement and during the period of usage is provided by nursing staff.
- Patient are informed that on safety grounds, mobilising away from the ward area, a monitored environment while attached to an analgesic device is strongly discouraged unless nurse escorted i.e., intradepartmental transfers.

Analgesic Infusion preparation:

Staff requirements

- Two RNs/ RMs, Rn and EN or Graduate Rn, Medical Officer and Rn/Rm, one being PCIA competent are required to prepare, check and commence an opioid/ analgesic infusion / PCIA for a designated patient. Refer to reference document list (below)for safe medication administration guidance.
- Independent double-checking practices must be followed.

Solution preparation required: Following aseptic technique (POL0197):

1. Perform appropriate drug calculation with independent double checking, access and retrieve desired analgesic from DD safe, ensure correct DD register documentation.
2. Aseptically, REMOVE AN EQUIVALENT VOLUME from sodium chloride 100ml bag of opioid /analgesic drug dose volume to be added.
3. Aseptically, add the opioid/ analgesic drug.
4. Attach blue additive label with: patient identifiers/ drug/ dose/ concentration/ date/ time/ the 2 appropriate staff signatures.
5. MIX CONTENTS THOROUGHLY by gently rolling bag end on end.

Use of premixed opioid bag recommended if available.

Ensure analgesic device clear line is correctly labelled: WHITE medicine label stating drug name and BLUE intravenous route label with date/time prepared.

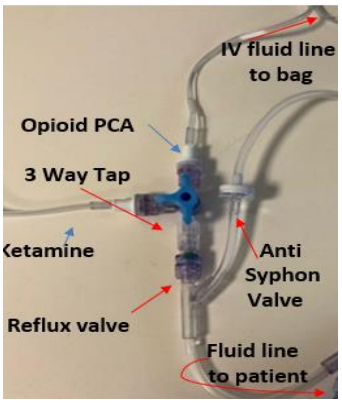
Practice point: (refer diagram 1)

- Place label distal end of line between clamp just prior to its attachment distal to the anti-syphon / anti reflux valve via a side port on patient side.

- If extension line required to ensure presence of anti-syphon / anti reflux valve label same with blue intravenous route label.

Process for 2nd Analgesic Solution Instigation

1. Use of 3-way tap required to add 2nd analgesic solution to analgesic delivery system.



Practice Point:

Prescription form MR 675 (Appendix G) will include all parameters required for programming the analgesic pump:

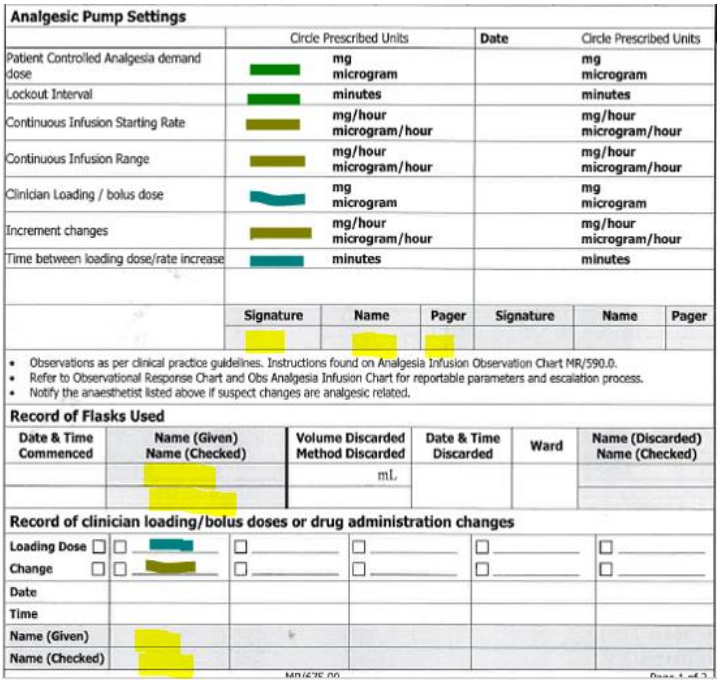
PCIA: bolus dose; lock out interval (usually 5 minute); clinician load /bolus dose (if applicable and time between loading dose)

Continuous Infusion, requires starting rate; continuous infusion range; incremental change; time between loading dose or rate increase.

Clinical Bolus, maybe programmed as a commencing loading dose or potentially for intermittent expected exacerbation of pain i.e., procedural pain cover known

Medical and Nursing staff Signature

Changes in the pre-set dose and/or lock out period can **ONLY** be varied according to the prescription on the medication pain control - Intravenous form MR 675.



Analgesic Pump Settings

	Circle Prescribed Units	Date	Circle Prescribed Units
Patient Controlled Analgesia demand dose	mg microgram		mg microgram
Lockout Interval	minutes		minutes
Continuous Infusion Starting Rate	mg/hour microgram/hour		mg/hour microgram/hour
Continuous Infusion Range	mg/hour microgram/hour		mg/hour microgram/hour
Clinician Loading / bolus dose	mg microgram		mg microgram
Increment changes	mg/hour microgram/hour		mg/hour microgram/hour
Time between loading dose/rate increase	minutes		minutes

	Signature	Name	Pager	Signature	Name	Pager

- Observations as per clinical practice guidelines. Instructions found on Analgesia Infusion Observation Chart MR/590.0.
- Refer to Observational Response Chart and Obs Analgesia Infusion Chart for reportable parameters and escalation process.
- Notify the anaesthetist listed above if suspect changes are analgesic related.

Record of Flasks Used

Date & Time Commenced	Name (Given) Name (Checked)	Volume Discarded Method Discarded	Date & Time Discarded	Ward	Name (Discarded) Name (Checked)
		mL			

Record of clinician loading/bolus doses or drug administration changes

Loading Dose	☐	☐	☐	☐	☐	☐
Change	☐	☐	☐	☐	☐	☐
Date						
Time						
Name (Given)						
Name (Checked)						