	<p align="center"><b>Epidural Analgesia Infusion Administration for Adult Patients Procedure</b></p>	<p align="center"><b>Procedure Number</b> <i>CHC-PE-0002</i></p>	<p align="center"><b>Version Nos:</b> <b>3</b></p>
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## 1. Purpose

This Procedure is performed as a means of ensuring that an Epidural analgesia is administered safely by approved West Coast District Health Board (WCDHB) staff members to adult patients.

## 2. Application

This Procedure is to be followed by all staff working with epidurals throughout WCDHB.

## 3. Definitions

There are no definitions associated with this Procedure.

## 4. Staff Authorised To Perform Procedure

This Procedure shall be performed by a MIV and Epidural Certified Registered Nurse/Midwife/Anaesthetic technician and Anaesthetists.

## 5. Resources Required

This Procedure requires:

- i) Dedicated Pain Management Pump and Associated Giving Set
- ii) Epidural Infusion Prescription Sheet and Epidural Management Document.

## 6. Process

- 1.00 Epidural infusion must be prescribed by an anaesthetist on Epidural Prescription Sheet.
- 1.01 The initial infusion is usually prepared and commenced by Recovery Unit staff. Subsequent infusion solutions are prepared and checked by two IV certified Registered Nurses, one of whom must be Epidural competent.
- 1.02 The Registered Nurse/Midwife, Anaesthetic technician responsible for the epidural infusion must be WCDHB MIV certified and have completed the training programme for epidural infusion management approved by WCDHB.
- 1.03 Epidural infusions are to be administered via a dedicated Pain Management Pump. This is to prevent accidental administration errors
- 1.04 Tubing specific to the Pain Management Pump is non-ported; colour coded yellow and labeled "epidural". A 0-2 micron filter is attached between catheter and tubing. This is secured on the patient's chest with a clear occlusive dressing eg. Tegaderm and reinforced with mifix. The dressing must be clearly labelled with a yellow "epidural" sticker.
- 1.05 The epidural catheter is taped up the patients back with mifix/sleek. This is to prevent kinking or dislodgement.



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- 1.06 If an infusion is to continue for more than 72 hours, the epidural tubing needs to be changed under strict aseptic conditions by the certified Registered Nurse/Midwife, Anaesthetic Technician. This is to maintain a sealed infusion system and because infusions are usually for less than 72 hours. The infusion may be continued longer if discussed with the Anaesthetist.
- 1.07 Administering a bolus or changing the infusion solution bag are the only times the systems integrity should be broken. This is to reduce infection rate.
- 1.08 There is to be no disconnection/reconnection of the infusion tubing to allow for patient showering. This is to reduce infection rate. **NB: If disconnected it must be removed.**
- 1.09 Epidural bolus may only be administered by an Anaesthetist.
- 1.10 A patient IV cannula must remain insitu for the duration of the Epidural infusion and for **6** hours after it is discontinued.
- 1.11 Naloxone 0.4mg IV must be readily available during the period of the Epidural infusion. This is to allow for the reversal of narcotic effect of epidural opioids.
- 1.12 The Epidural catheter insertion site must be inspected 8 hourly. This is to allow for the early detection of any complications.
- 1.13 Epidural infusion is discontinued permanently only on written instructions of Anaesthetist. This is indicated on the epidural infusion prescription.
- 1.14 The Epidural catheter must not be removed while patient is anticoagulated. Recommended time for removal if patient on Clexane doses is 20 hours POST dose or 4 hours PRE next dose. This is to reduce the risk of epidural haematoma.
- 1.15 Epidural infusion is to be formally assessed, at least once daily by the Anaesthetist.
- 1.16 Regular monitoring of the vital signs designated is **absolutely integral** to the safe conduct of Epidural Infusion Analgesia (EIA). Each patient will have the EIA prescription / observation sheet containing:
- Technical details such as – epidural insertion site, prescription of drugs to be infused, rate of infusion, mode of infusion, ie Patient Controlled Epidural Analgesia/continuous infusion/ or both, pump details etc.
  - Definition of significant respiratory rate and sedation levels.
  - Also Naloxone prescription.
  - Rescue IV opioid regime may be utilised. **Can only do this on anaesthetists instructions.**
  - A record of volumes infused.
  - A dermatome diagram to assist with block assessment.
  - A myotome scale to assess motor blockage (eg Bromage)



- 1.17 The regular parameter observations to be made are:
- Monitor and record TPR, BP, pain score, dermatome/sensory level, motor blockage and sedation score ½ hrly for 1 hr, 1 hrly for 3 hrs then 4 hrly if patient stable unless PCA used, then should be 2 hourly.
  - After an anaesthetist administered bolus (top-up) dose, pulse, respirations and blood pressure to be performed every five minutes for twenty minutes and dermatome level at 20 minutes.
  - PCEA doses and attempts could be documented on record along with a 2 hrly total.
  - Changes in infusion rate must be documented and signed for.
  - **Skin integrity checks 2 hrly with pressure relief, eg heels.**
  - Epidural insertion site checks 8 hrly.
  - Sensory level: In general, if block extends above prescribed height, stop infusion or reduce infusion as per prescription and notify anaesthetist.
  - Test upper and lower levels (both sides) with ice NOT pinprick or pinch. Monitor rate as for TPR above
  - After discontinuing infusion, continue observations for 4 hrs.  
Leave catheter insitu, intravenous access to remain in place until the 4 hours have elapsed. Ensure alternative analgesia charted.
  - For the patient receiving epidural analgesia for terminal pain, there will be ½ hourly respiratory rate recordings for 4 hours, and then no further recordings will be required other than the effectiveness of the analgesia.
  - If the drug dosage is increased, repeat the ½ hourly respiratory rate recordings for 4 hours.

## **7. Precautions And Considerations**


- ➔ Epidural infusions are to be administered via a dedicated Pain Management Pump
- ➔ Epidural infusion is discontinued permanently only on written instructions of an Anaesthetist.
- ➔ Epidural infusion is to be formally assessed, at least once daily by the Anaesthetist.

## **8. References**

Acute Pain Management Service – Christchurch Hospital  
Canterbury Health Policy & Procedure Manual  
Canterbury Health Fluid & Medication Manual

## **9. Related Documents**

WCDHB Epidural Standard

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<b>Revision History</b>	<b>Version:</b>	3
	<b>Developed By:</b>	Anaesthetist, CNE Perioperative Services
	<b>Authorised By:</b>	Dr S Newton
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