



# **EPIDURAL**

# **INFUSION**

# **CATHETERS**

# **STANDARD**

# **OPERATING**

# **PROCEDURE**

# **(SAPPHIRE PUMP)**



## **APPLICATION AND USE CASE**

This guidance is designed for anaesthesia/critical care physicians and specialist looking after patients who have epidurals sited following major abdominal surgery (i.e. midline laparotomies), or who have chest wall trauma.

This includes (but is not limited to) the following surgical specialties:

- General Surgery
- Upper GI Surgery
- Vascular Surgery
- Gynaecology Oncology Surgery
- Trauma Surgery

**For guidance on how these catheters should be sited, assessed, and reviewed, please refer to the clinical guideline 'Clinical Guideline For Continuous Epidural Infusion Analgesia (Pre- and Post-Operatively) In Adults' (CLIN/GUI/180/2024/001). This can be found on the Barts Health Intranet.**



## **SUMMARY: PRESCRIBING AND SET-UP**

This one-page summary is intended as an aide-memoire or refresher for the prescription and set-up of the Sapphire local anaesthetic infusion pumps. For more detailed information, please refer to the rest of this guideline.

- 1. Confirm availability of Sapphire adult epidural pump** and desired local anaesthetic prior to siting an epidural catheter.
- 2. Site catheter** according to the acuity of patient need and clinical guidelines.
- 3. Complete EPMA prescription and Acute Pain team referral:**
  - a. Use the 'Continuous Epidural Infusion Care Plan – Adult' care plan on CRS
- 4. Set-Up Sapphire Pump:**
  - a. On/Off switch
  - b. Select Appropriate CCA ('Adult Epidural')
  - c. Select an appropriate CCA
- 5. Confirm the prescription** on the pump and EPMA match
- 6. Prime the Sapphire pump** with the appropriate NRFit giving set and local anaesthetic
- 7. Ensure that the patient's infusion pump is connected** prior to them leaving the operating theatre or anaesthetic room



## **INFUSION PUMP (SAPPHIRE) USER GUIDE**

For local anaesthetic infusions down an epidural catheter, please ensure the pump has a **yellow** face, and is labelled 'Epidural'. The following represents a step-by-step guide to setting up infusions on the Sapphire pumps.




### **PRESCRIBING**

All local anaesthetic infusions should be prescribed via EPMA using the care plan labelled 'Continuous Epidural Infusion Care Plan– Adult'. Please complete the prescription prior to programming the pump. This will allow prescribers to confirm the dose/infusion rate administered against the prescription.

	<b>0.1% BUPIVACAINE</b>	<b>0.125% LEVOBUPIVACAINE</b>	<b>0.1% BUPIVACAINE + FENTANYL 4 micrograms / ml</b>
<b><u>Infusion Regime (Sapphire Pump)</u></b>			
<b>All Adult Patients</b>	<b>5-15ml/hour</b>	<b>5-15ml/hour</b>	<b>5-15ml/hour</b>




**SOP: Setting Up Epidural Infusions On The Sapphire Pump**  
**Using 0.1% PLAIN BUPI As An Example**

Correct CCA Selection	Using the Drug Library	Confirming the Correct Prescription
1. Turn Pump On 2. Confirm 'Epidural' 3. Select appropriate CCA	4. Select 'New Infusions' 5. Confirm 'New Patient' 6. Use the 'Find' button or the alphanumeric keypad to select the appropriate drug 7. Confirm the drug + concentration	8. Confirm the settings match the EPMA prescription
		

**Start the infusion; priming beforehand if needed**



## Appendix 1: Manufacturer's Quick Reference Tip Card for Epidural Pumps

		<h1>Sapphire™ Tip Card</h1>		<h2>Epidural</h2>
Action	Instruction			
Lock	<b>Lock</b> > <b>Lock Screen</b> OR <b>Patient Lockout</b>			
Unlock	Screen Lock: <b>Press to unlock screen</b> > <b>ok</b>			
	Patient Lock: <b>Press to unlock patient</b> > enter password <b>ok</b>			
Pause Infusion	<b>Request Pause</b> > <b>ok</b>			
Resume Infusion	<b>Request Continue</b> > <b>ok</b>			
Review Program	<b>View/Edit</b> > review parameters > <b>ok</b>			
Edit Program	<b>Request Pause</b> > <b>ok</b> > <b>View/Edit</b> > select parameter and input new value > <b>ok</b> > <b>ok</b> > <b>Request Continue</b> > <b>ok</b>			
Review Delivery History	Locked Screen: <b>Delivery History</b> > <b>Back</b>			
	Unlocked Screen: <b>View/Edit</b> > <b>Delivery History</b> > <b>Exit</b>			