

**Royal Hospital for Women (RHW)**  
**BUSINESS RULE**  
**COVER SHEET**



**Health**  
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<b>SUMMARY</b>	This document is a comprehensive guideline containing information referring to the safe management of a woman who has a subcutaneous lidocaine infusion for the treatment and management of chronic neuropathic pain.
<b>Key Words</b>	Lidocaine, Lignocaine, Neuropathic pain, Analgesia, Pain, Chronic

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## Lidocaine (lignocaine) Subcutaneous Infusion for Chronic Pain

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*Within this document we will use the term woman, this is not to exclude those who give birth and do not identify as female. It is crucial to use the preferred language and terminology as described and guided by each individual person when providing care.*

## 1 BACKGROUND

The aim of this CBR is to outline the procedure for the administration and management of Lidocaine (Lignocaine) to provide symptom relief for patients with chronic neuropathic pain disorders. This procedure is for RHW inpatients only.

## 2 Responsibilities (Medical, Nursing and pharmacy staff)

Role	Responsibilities
Chronic Pain Team  (Chronic Pain Consultant/Fellow-Authorised Prescribers)	<ul style="list-style-type: none"> <li>Select suitable patients for Lidocaine (lignocaine) infusion as outlined in this CBR</li> <li>Prescribe Lidocaine (Lignocaine) subcutaneous (subcut) infusion in eMR eFluids in accordance with this CBR.</li> <li>Review ECG prior to commencement of infusion</li> <li>Review patients on Lidocaine (Lignocaine) infusions daily</li> <li>Review IMS+ relating to Lidocaine (Lignocaine) infusions</li> </ul>
Medical Officer	<ul style="list-style-type: none"> <li>Manage any complications or adverse effects</li> <li>Appropriate escalation to Chronic Pain team</li> </ul>
Registered Nurse	<ul style="list-style-type: none"> <li>RN who has completed Lidocaine (Lignocaine) infusion competency can only handle these infusions.</li> <li>Prepare and administer Lidocaine (Lignocaine) as outlined in this CBR</li> <li>Attend to observations and manage adverse effects of Lidocaine</li> </ul>
Pharmacist	<ul style="list-style-type: none"> <li>Review patients' eMR medications including Lidocaine Infusion Order</li> <li>Facilitate supply of Lidocaine (Lignocaine) ampoules</li> </ul>

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### 2.1 Steps to obtain competency (Nursing)

**Step 1:** Read Lidocaine (lignocaine) subcutaneous infusion for chronic pain.

**Step 2:** Attend an in-service by Acute Pain Services CNC on Lidocaine infusion management and obtain accreditation/ competency to use the dedicated pain pump. The dedicated Lidocaine pumps are available in RHW Recovery.

*Completion of above steps including pump accreditation are mandatory before caring for patients with subcutaneous lidocaine infusions.*

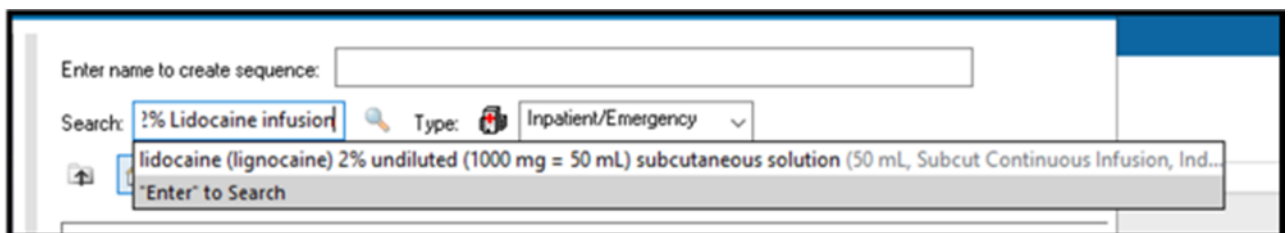
## 3 PROCEDURE

### 3.1 Clinical Practice

- **Perform ECG on patient and ensure chronic pain consultant or fellow reviews same for conduction defects PRIOR to commencement of lidocaine (lignocaine) infusion.**
- Patients may be managed/nursed on the general ward.
- **USE UNDILUTED LIDOCAINE (LIGNOCAINE) 2% FOR INFUSION WITHOUT ANY ADDITIVES**

### 3.2 Prescribing

- **Lidocaine subcutaneous may only be prescribed by a chronic pain consultant or fellow.**
- Prescribe Lidocaine (Lignocaine) subcutaneous (sub cut) infusion in eMR eFluids<sup>1</sup>



- Chart enough orders to last until the next medical review by the Chronic Pain Team. Medical reviews and recharting need to occur within 24 hours.
- Duration of treatment is usually between 5-7 days.
- The patient should be informed of lidocaine (lignocaine) toxicity before administration- refer to Appendix C
- Dosage – Appendix A
- Observations – Appendix B
- Adverse events and management – Appendix C

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### 3.3 Documentation

- eFluids on eMR
- Between the Flags chart in eMR<sup>4</sup>
- Gynaecological Clinical Pathway

### 3.4 Education Notes

- Systemic local anaesthetic type drugs are effective in the treatment of chronic neuropathic pain states, particularly after peripheral nerve trauma<sup>5,6</sup>.
- Lidocaine stabilises the neuronal membrane and prevents the initiation and transmission of nerve impulses.
- Lidocaine has dose related side effects including central nervous system and cardiovascular effects – see appendix C
- It is essential that the patient has an ECG and a doctor from the chronic pain team reviews the ECG for any underlying conduction defects prior to the administration of Lidocaine (lignocaine).
- This infusion may cause light headiness and presents a falls risk for the patient. Please refer to SESLHD Falls Prevention and Management Policy.
- In case of signs and symptoms of local anaesthetic toxicity, Intralipid® should be considered (refer to Appendix C). Intralipid® is stored on all arrest trolleys in RHW. Intralipid set-up, infusion dosing and management of cardiac arrest with local anaesthetic toxicity are all given in RHW CBR Intralipid Management and Treatment of severe Local Anaesthetic Toxicity<sup>2</sup>.
- **USE UNDILUTED LIDOCAINE (LIGNOCAINE) 2% FOR INFUSION**

### 3.5 Contraindications

- Adams-Stokes Syndrome
- Wolff-Parkinson-White Syndrome
- Severe atrio-ventricular, sino-atrial or intraventricular heart block not managed with a pacemaker.
- Sensitivity to amide-type local anaesthetics.
- Myasthenia gravis
- Impaired cardiac conduction
- This is not a comprehensive list; please refer to Product Information for Lidocaine in [eMIMS](#)<sup>7</sup> for more information.

#### 3.5.1 Possible Drug Interactions Lidocaine (Lignocaine):

- Beta-Blockers e.g., metoprolol, atenolol
- Antiarrhythmic e.g., amiodarone
- Anticonvulsants -phenytoin, phenobarbitone, carbamazepine and primidone

Please note that this list is not exhaustive; please refer to lidocaine (lignocaine) product information for more information available on [eMIMS](#)<sup>7</sup>

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### 3.6 Equipment

- Dedicated pain management pump with locked box specifically programmed to deliver infusion only
- Appropriate giving set- straight with NO SIDE PORT
- Lidocaine (lignocaine) 2% injection 400mg/20mL ampoules can be obtained from pharmacy (3 ampoules are required to make up a 50mL syringe)
- 50mL syringe
- Drawing up needle
- Brown subcutaneous additive label and brown subcutaneous line labels
- Blue ANTT tray.

### 3.7 Method

- Draw up 50mL **undiluted** Lidocaine (Lignocaine) 2% injection and label syringe according to [National Standard for User-applied Labelling of Injectable Medicines, Fluids and Lines](#).

### 3.8 Related Policies/procedures

1. Falls Prevention and Management for People admitted to Acute and Sub Acute Care - SESLHDPR/380
2. [National Standard for User-applied Labelling of Injectable Medicines, Fluids and Lines](#)

### 3.9 References

1. Lidocaine (lignocaine) for Pain Management- Continuous Subcutaneous Administration [POWH CLIN015 2023](#)
2. RHW CBR Intralipid -Management and treatment of severe Local Anaesthetic Toxicity [Intralipid - Management and Treatment of Severe Local Anaesthetic Toxicity \(ADULT ONLY\)](#)
3. Management of the Deteriorating ADULT inpatient (excluding Maternity) [SESLHDPR/697](#)
4. Clinical Excellence commission, NSW SAGO chart, accessed on 11<sup>th</sup> March 2025. [SAGO chart](#)
5. Australian and New Zealand College of Anaesthetists and Faculty of Pain Medicine. 2020, Fifth Edition. [Acute Pain Management Scientific Evidence](#)
6. Systemic administration of local anaesthetic agents to relieve neuropathic pain [Cochrane Database 2005](#)
7. Lidocaine (Lignocaine). [eMIMS](#) . Accessed 11/03/2025

## 4 ABORIGINAL HEALTH IMPACT STATEMENT DOCUMENTATION

- Considerations for culturally safe and appropriate care provision have been made in the development of this Business Rule and will be accounted for in its implementation.
- When clinical risks are identified for an Aboriginal and/or Torres Strait Islander woman or family, they may require additional supports. This may include Aboriginal health professionals such as Aboriginal Liaison Officers, health workers or other culturally specific services.

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## 5 CULTURAL SUPPORT

- For a Culturally and Linguistically Diverse CALD woman, notify the nominated cross-cultural health worker during Monday to Friday business hours.
- If the woman is from a non-English speaking background, call the interpreter service: NSW Ministry of Health Policy Directive PD2017\_044-Interpreters Standard Procedures for Working with Health Care Interpreters.

## 6 NATIONAL STANDARDS

- Standard 2 – Partnering with Consumers
- Standard 4 – Medication Safety

## 7 REVISION AND APPROVAL HISTORY

Date	Revision No.	Author and Approval
16/08/2018		Endorsed Quality & Patient Care Committee
28/04/2021	1	Endorsed Therapeutic & Drug Utilisation Committee
March 2025	2	Sponsor- Chronic Pain Service Reviewed- Preetha Pradeep, CNC
14.4.25	2	RHW BRGC



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## 8. Appendix A

### Dosing<sup>1</sup>

Drug and prescription	Concentration	Sub-cut infusion range	Starting dose
Lidocaine (Lignocaine) 2% (400mg/20ml ampoules)	20mg/1mL 1000mg/50mL	1mL-6mL/hour  (=20mg- 120mg/hour)	1mL/hour (=20mg/hour)
It is recommended to start the infusion at the low to mid-range especially if the patient is prone to low blood pressure and then titrate according to medical assessment.			
Infusion rate may be increased after 12-24 hours depending on response. Chronic Pain team must prescribe this after review of the patient.			
The maximum recommended dose for this infusion is 6ml(=120mg)/hr			

## 9. Appendix B

### Patient Observations<sup>1</sup>

Observation	Frequency
<ul style="list-style-type: none"> <li>Blood pressure</li> <li>Heart rate</li> <li>Respirations</li> <li>Oxygen saturations</li> <li>Temperature</li> <li>Pain score</li> <li>Level of consciousness - alert, verbal, pain, unresponsive (AVPU)</li> </ul>	<p>A full set of vital signs should be recorded prior to the commencement of the infusion as a baseline then.</p> <p>Hourly for four (4) hours then every 4 hours.</p>
Document patient observations on EMR between the flags chart.	



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## 10. Appendix C

### Adverse Events and Management<sup>2,3</sup>

Lidocaine (Lignocaine) intoxication can present in many ways, making it very difficult to recognise. Techniques involving infusion of Lidocaine (Lignocaine) through a catheter allow intoxication to develop at any time. (AAGBI guideline)

**Anaesthetists to coordinate set up and delivery of intralipid 20%**

Signs of systemic lidocaine (Lignocaine) toxicity	Management
<b>Early</b>	
<ul style="list-style-type: none"> <li>• Numbness of tongue</li> <li>• Restlessness</li> <li>• Tinnitus</li> <li>• Vertigo</li> <li>• Shivering</li> <li>• Muscular twitching &amp; tremors (initially involving muscles of face &amp; distal parts of extremities)</li> <li>• Generalised convulsions</li> <li>• Hypertension and tachycardia</li> </ul>	<ul style="list-style-type: none"> <li>• Stop injecting the local anaesthetic.</li> <li>• Call for help. (Rapid Response)</li> <li>• Give 100% oxygen and ensure adequate lung ventilation.</li> <li>• Confirm / establish intravenous access.</li> <li>• Assess cardiovascular status throughout.</li> <li>• Contact the Chronic pain team or APS.</li> </ul>
<b>Severe</b>	
<ul style="list-style-type: none"> <li>• Bradycardia Sudden alteration in mental status, severe agitation or loss of consciousness, with or without tonic-clonic convulsions</li> <li>• Cardiovascular collapse: sinus bradycardia, conduction blocks, asystole and ventricular tachyarrhythmias may all occur</li> </ul>	<ul style="list-style-type: none"> <li>• Stop injecting the local anaesthetic.</li> <li>• Call for help. (CODE BLUE)</li> <li>• Maintain airway (secure if necessary).</li> <li>• Give 100% oxygen and ensure adequate lung ventilation.</li> <li>• Confirm / establish intravenous access.</li> <li>• Control of seizures: give benzodiazepine or thiopentone or propofol in small incremental doses.</li> <li>• Assess cardiovascular status throughout.</li> <li>• Contact the Chronic pain team or APS.</li> <li>• Consider INTRALIPID INFUSION</li> </ul>