Royal Hospital for Women (RHW)
BUSINESS RULE
COVER SHEET

Health
South Eastern Sydney
Local Health District

Ref: T25/10688

NAME OF DOCUMENT	PAIN PROTOCOL (KETAMINE) Recovery Room only
TYPE OF DOCUMENT	Clinical Business Rule
DOCUMENT NUMBER	RHW CLIN122
DATE OF PUBLICATION	28 February 2025
RISK RATING	High
REVIEW DATE	February 2027
FORMER REFERENCE(S)	PAIN PROTOCOL (KETAMINE) Recovery Room only -LOP RHW
EXECUTIVE SPONSOR	Leonie Watterson, Co-Director Anaesthesia, RHW Craig Hargreaves, Co-Director Anaesthesia, RHW
AUTHOR	Preetha Pradeep, CNC, Acute Pain Service, RHW, Preetha.Pradeep@health.nsw.gov.au Rhiannon Moody, CNC, Acute Pain Service, RHW, *Rhiannon.Taylor@health.nsw.gov.au*
SUMMARY	To provide effective postoperative pain management to women who has severe or uncontrolled pain NOT controlled by opioid pain protocol as per *SESLHD Acute Pain Management in the Post Anaesthetic Care Unit*
Key Words	Pain, Protocol, Ketamine, Recovery.

Royal Hospital for Women (RHW)
BUSINESS RULE

Health
South Eastern Sydney
Local Health District

PAIN PROTOCOL (KETAMINE) Recovery Room only

RHW CLIN122

Contents

This Clinical Business Rule (CBR) is developed to guide safe clinical practice at the Royal Hospital for Women (RHW). Individual patient circumstances may mean that practice diverges from this Clinical Business Rule. Using this document outside RHW or its reproduction in whole or part, is subject to acknowledgement that it is the property of RHW and is valid and applicable for use at the time of publication. RHW is not responsible for consequences that may develop from the use of this document outside RHW.

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

ONLY TO BE USED IN CONJUNCTION WITH:

SESLHD Acute Pain Management in the Post Anaesthetic Care Unit: Intravenous Opioid Pain Protocol for Adults. Fentanyl, HYDROmorphone, Morphine and Oxycodone.

To provide effective postoperative pain management to women who has severe or uncontrolled pain NOT controlled by opioid pain protocol as per *SESLHD Acute Pain Management in the Post Anaesthetic Care Unit: Intravenous Opioid Pain Protocol for Adults, Fentanyl, HYDROmorphone, Morphine and Oxycodone.* This is achieved through the administration of intravenous boluses of ketamine.

2 RESPONSIBILITIES

2.1 Staff (medical, midwifery, Nursing, Allied health)

- Medical staff – Assess need for Ketamine and prescribe in eMEDS
- Nursing staff – Assess need for Ketamine, prepare and administer Ketamine as prescribed.

3 PROCEDURE

3.1 Equipment

- Ketamine ampoule – 200mg in 2mL
- eMED prescription
- 10mL sodium chloride 0.9%
- 10mL syringe
- Blunt 18g needle
- Blue medication label
- Alcohol swabs
- Blue ANTT Tray.

3.2 Clinical Practice

- Refer to Appendix 1 for Pain Protocol (Ketamine) flow chart.
- Adhere to Medication Handling in NSW Public Health Facilities – PD2022 032.
- Prescribe order via eMEDS as per default prescription i.e. Ketamine (10mg, IV, Solution Inj, every 5 mins, PRN for Pain, for 3 doses only)
- Assess the patient prior to commencing Pain Protocol (Ketamine). Refer to educational notes.
- Check the IV cannula site for patency, swelling, inflammation
- Check the medication order and follow the RHW medication policy for handling S8 drugs. This must be done by 2 registered nurses or 2 registered midwives
- Draw up 100mg (1mL) Ketamine into a 10mL syringe and make up to 10mL with Sodium Chloride 0.9%. i.e. (10mg/1mL)
- Label syringe with patient's name, drug and concentration, date and time.
- Check the patient as per RHW medication policy. This must be done by 2 registered nurses or 2 registered midwives
- Administered oxygen via Hudson mask at 6L/min
- Warn patient of possible side effects such as lightheadedness and disorientation.
- Inject the first dose (1mL) of ketamine solution as a slow push and flush the line with the intravenous fluid in progress or 3-5mL of sodium chloride 0.9% which has been drawn up in a separate syringe and labelled
- Record each dose of ketamine on eMEDS as per RHW medication policy
- Assess patient at 5 minutes then repeat the next dose if necessary. If patient has severe dysphoria wait an additional 5 minutes, then reassess before giving next dose
- Continue with 1mL bolus doses until the patient's pain score is ≤ 5/10 or the maximum of 3 doses (30mg) is met
- Obtain anaesthetic review if the patient is not comfortable after giving 30mg of ketamine.
- Discontinue Pain Protocol (Ketamine) if pain score ≤ 5/10.
- Discontinue Pain Protocol (Ketamine) if the respiration rate is < 10 per minute and obtain an anaesthetic review of the patient.
- Delay ketamine pain protocol until dysphoria has improved
- Regularly monitor woman once the Pain Protocol (Ketamine) has been initiated, as follows:
- Record observations every 10min which must include BP, pulse, respirations, oxygen saturation, sedation and pain scores
- Continuously assess sedation level and level of dysphoria
- Assess pain score prior to each dose of the ketamine
- Observe woman for a further 20 minutes following the last dose of ketamine and before being assessed for readiness for discharge to the ward/unit
- Discharge from unit may occur if respiratory rate ≥ 10 BPM and sedation score of ≥1.
- Do not leave woman or drug unattended at any time

3.1 Documentation

- eMEDS
- eMRview
- eMR Clinical Notes, if needed

3.2 Education Notes

1. Pain Assessment:

- Verbal pain score 0 – 10 (0 = no pain; 10 = worst possible pain)
- Verbal pain descriptors (e.g. mild, moderate / strong, severe)
- Visual analogue pain scale (facial expressions incorporating a numerical scale)

3.2.1.1 Pain Scores:[5]

- 0 = No pain
- 1-3 = Mild
- 4-6 = Moderate
- 7-10 = Severe

3.2.1.2 Sedation Scoring: [5]

3	Difficult to rouse or unresponsive
2	Constantly drowsy, unable to stay awake
1	Easy to rouse
0	Wide awake

- Do not commence Pain Protocol (Ketamine) if Respiratory rate < 10
- Respiratory rate must remain at ≥ 10 at all times during Pain Protocol (Ketamine).
- Respiratory rate of less than 8 per minute = Respiratory Depression
- Do not commence Pain Protocol (Ketamine) if sedation score <1
- **Blood Pressure** – must be within 20% the patient's normal limits using the preoperative blood pressure reading and patient history as a guideline.

3.2.1.3 Caution should be exercised with patients who have a:

- History of allergic reaction or an allergic reaction to ketamine in the recovery room.
- Patients who are unstable: hypotensive, hypovolaemic, bradycardic, poor respiratory effort. **Assessment of the patient by the Anaesthetist is mandatory** in this situation prior to commencement Pain Protocol (Ketamine).
- Concurrent epidural infusion: It is not routine for patients receiving an epidural infusion to also be administered intravenous pain protocol. Only in exceptional circumstances, following an anaesthetic review, will the anaesthetist order additional opioid or ketamine via intravenous pain protocol.
- Reduced dosing is generally required in patients with renal or liver disease and patients over 70 years of age owing to altered metabolism and excretion of opioids.

3.2.1.4 Nurse Accreditation

- RN accreditation to administer pain protocol consists of successful completion of a worksheet and a competency assessment.

3.3 Related Policies/procedures

- SESLHD Acute Pain Management in the Post Anaesthetic Care Unit: Intravenous Opioid Pain Protocol for Adults Fentanyl, HYDROmorphone (Dilaudid), Morphine and Oxycodone-SESLHDPR/501
- Learning package: SESLHD Acute Pain Management of Adults in the Post Anaesthetic Care Unit: IV Opioid Pain Protocol
- PD2022 032 - Medication Handling
- PD2020_045 – High-Risk Medicines Management
- PD2017_013 - Infection Prevention and Control Policy
- PD2019_040 - Intravascular Access Devices (IVAD) – Infection Prevention & Control
- National Standard for User-Applied Labelling of Injectable Medicines, Fluids and Lines.

3.4 References

1. Concord Repatriation General Hospital Policy and Procedure Manual (2006). Recovery Pain Management Protocol.
2. Hatfield, A. & Tronson, M. (2009). The complete recovery room book, (4th ed.), New York: Oxford University Press.
3. Medication Handling in NSW Public Health PD2007_077. Medication Handling in NSW Public Hospitals.
4. St George Hospital and Community Health Service, PACU Policy & Procedure Manual (September 2010). PACU Intravenous Opioid Pain Protocol for Adults.
5. NSW standardised pain charts | Agency for Clinical Innovation
6. Australian Injectable Drug Handbook version 9

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

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

7 REVISION AND APPROVAL HISTORY

Date	Revision No.	Author and Approval
10/02/2025	7	RHW BRGC
28/4/21		Reviewed and endorsed Therapeutic & Drug Utilisation Committee
16/8/18 July 2018		Approved Quality & Patient Care Committee Reviewed and endorsed Therapeutic & Drug Utilisation Committee
Nov 2016		Approved Quality & Patient Care Committee
11/10/16		Reviewed and endorsed Therapeutic & Drug Utilisation Committee
18/8/11 16/8/11 June 2005 15/12/03		Replaced *Tramadol Policy* Approved Quality & Patient Safety Committee Reviewed and endorsed Therapeutic & Drug Utilisation Committee Approved Quality Council 20/6/05 – Updated Pain M'ment CNC & Director/Anaesthesia Approved Quality Council

Appendix 1

Only to be used in RHW PACU in conjunction with:

SESLHD Acute Pain Management in the Post Anaesthetic Care Unit: Intravenous Opioid Pain Protocol for Adults. Fentanyl, HYDROmorphone, Morphine and Oxycodone.

PAIN PROTOCOL - KETAMINE (FLOW CHART)