Royal Cornwall Hospitals NHS Trust

Policy Under Review

Please note that this policy is under review. It does, however, remain current Trust policy subject to any recent legislative changes, national policy instruction (NHS or Department of Health), or Trust Board decision. For guidance, please contact the Author/Owner.

Information Category	Detailed Information
Document Title:	Care of Adult Patients who have received a Single Dose of Spinal / Intrathecal Fentanyl / Diamorphine Clinical Guideline V10.0
This document replaces (exact title of previous version):	Care of Adult Patients who have received a Single Dose of Spinal / Intrathecal Fentanyl / Diamorphine Clinical Guideline V9.0
Date Issued / Approved:	January 2022
Date Valid From:	January 2022
Date Valid To:	July 2025
Author / Owner:	Sarah Medlicott Pain Specialist Nurse
Contact details:	01872 252792
Brief summary of contents:	Guidelines for nursing staff caring for patients who have received a single dose of spinal or intrathecal anaesthetic of Fentanyl or Diamorphine
Suggested Keywords:	Spinal. Intrathecal. Spinal anaesthetic. Intrathecal Diamorphine. Intrathecal Fentanyl.
Target Audience:	RCHT: Yes CFT: No CIOS ICB: No
Executive Director responsible for Policy:	Chief Medical Officer
Approval route for consultation and ratification:	Pain Services Department ACCT governance
Manager confirming approval processes:	Matthew Body

Information Category	Detailed Information
Name of Governance Lead confirming consultation and ratification:	James Masters
Links to key external standards:	Faculty of Pain Medicine (2021) Core Standards for Pain Management Services in the UK. Available from FPM-Core-Standards-2021_1.pdf. [Accessed 22/12/21]
Related Documents:	Association of Anaesthetists of Great Briton and Ireland, Obstetric Anaesthetists' Association and Regional Anaesthesia UK (2013) Regional anaesthesia and patients with abnormalities of coagulation. *Anaesthesia* 2013; 68: pages 966-72. Bromage PR (Ed) (1978). Epidural Analgesia, Bromage Score. Philadelphia. *WB Saunders*: pp 144. Macintyre.P, & Ready L (2001) Acute Pain Management. London. WB Saunders Rawal,N. (2002) Intraspinal Opioids in Rowbotham D, Macintyre P (eds). Clinical Pain Management: Acute Pain. London. Arnold. RCHT Aseptic Non-Touch Technique (ANTT) policy. RCHT Thrombosis Prevention and Anticoagulation Policy
Training Need Identified:	No
Publication Location (refer to Policy on Policies – Approvals and Ratification):	Internet and Intranet
Document Library Folder/Sub Folder:	Clinical / Pain

This document is only valid on the day of printing.

Controlled Document.

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Royal Cornwall Hospitals NHS Trust

Care of Adult Patients who have received a Single Dose of Spinal / Intrathecal Fentanyl / Diamorphine Clinical Guideline

V10.0

January 2022

Summary: Care of Adult Patients who have received a Single Dose of Spinal / Intrathecal Fentanyl / Diamorphine Clinical Guideline

Procedure explained and undertaken by the anaesthetist.

The anaesthetist hands over to the recovery staff information about the spinal anaesthetic.

- An analgesic assessment chart/electronic local anaesthetic chart is commenced.

On discharge to the ward: the recovery staff handover that the patient has received a spinal anaesthetic and what analgesic agent it contained. The patient is not routinely reviewed by the inpatient pain team, any concerns should be escalated to them via bleep

Observations are documented on the obs chart and Motor power and sensation are recorded on the analgesic assessment char:

- Blood pressure, pulse, oxygen saturation levels, respiratory rate sedation and pain scores, should be recorded every 15 minutes for 1 hour and then every 30 minutes for the next 2 hours as per standard post procedure monitoring
- Respiratory rate, sedation and pain scores must be recorded hourly until at least 24 hours post procedure or longer if the observations are unstable, especially if additional opioids are given. The frequency of other observations may be reduced after 12 hours.
- Motor power and sensory observations should be recorded hourly for the first 2 hours, then 4 hourly or more frequently if clinically indicated on the analgesic assessment chart.
- Any alteration to the standard observations required, the administering anaesthetist will record the desired frequency on the anaesthetic chart or peri-operative book.

Any concerns regarding potential complications associated with the spinal anaesthetic – contact the inpatient pain team or out of hours the on-call anaesthetist.

1. Aim/Purpose of this Guideline

1.1. The aim of this guideline is to provide guidance to nursing staff caring for patients who have received a single dose of spinal or intrathecal anaesthetic of Fentanyl or Diamorphine.

1.2. This version supersedes any previous versions of this document.

Data Protection Act 2018 (General Data Protection Regulation – GDPR) Legislation

The Trust has a duty under the Data Protection Act 2018 and General Data Protection Regulations 2016/679 to ensure that there is a valid legal basis to process personal and sensitive data. The legal basis for processing must be identified and documented before the processing begins. In many cases we may need consent; this must be explicit, informed, and documented. We cannot rely on opt out, it must be opt in.

Data Protection Act 2018 and General Data Protection Regulations 2016/679 is applicable to all staff; this includes those working as contractors and providers of services.

For more information about your obligations under the Data Protection Act 2018 and General Data Protection Regulations 2016/679 please see the Information Use Framework Policy or contact the Information Governance Team

Royal Cornwall Hospital Trust rch-tr.infogov@nhs.net

2. The Guidance

2.1. This guidance only relates to spinal or intrathecal anaesthetic containing Fentanyl and Diamorphine. Any other opioids given via this route are not covered by these guidelines. The anaesthetist responsible should clearly document their own guidelines.

2.1.1. Spinal/intrathecal anaesthetics are most commonly given in combination with a local anaesthetic at the time of surgery. The local anaesthetic usually wears off after 2-6 hours.

2.1.2. Pre procedure explanation should be given to the patient by the anaesthetist.

2.1.3. The spinal/intrathecal anaesthetic will be administered under strict aseptic technique. This will be documented on the appropriate chart.

2.1.4. All members of the ward staff must be made aware that the patient has received intrathecal Fentanyl / Diamorphine. The anaesthetic chart should be checked for all postoperative patients.

2.1.5. The inpatient pain team do not routinely review patients following a spinal/intrathecal Fentanyl/Diamorphine. Any concerns should be escalated via bleep to the inpatient pain team or the on-call anaesthetist out of hours.

2.1.6. Additional analgesia may be required (see 2.3.1).

2.1.7. All patients who have received intrathecal/spinal Fentanyl / Diamorphine must have an intravenous cannula in situ in case of adverse reactions.

2.1.8. Resuscitation equipment must be available.

2.1.9. The puncture site may be covered with a small occlusive dressing which should be observed at least daily to ensure that the site is clear from signs of infection i.e. inflammation or exudate.

2.2. Clinical Observations.

2.2.1. Monitoring should be documented on the NEWS chart and Analgesic Assessment Chart or electronic local anaesthetic assessment chart available via Nervecentre.

2.2.2. Post procedure, blood pressure, pulse, sedation, pain scores, oxygen saturation levels and respiratory rate should be recorded every 15 minutes for 1 hour and then every 30 minutes for the next 2 hours.

2.2.3. Respiratory rate, sedation and pain scores must be recorded hourly until at least 24 hours post procedure or longer if the observations are unstable, especially if additional opioids are given. The frequency of other observations may be reduced after 12 hours.

2.2.4. Motor power and sensory observations (Bromage Scores) should be recorded hourly for the first 2 hours, then 4 hourly or more frequently if clinically indicated on the analgesic assessment chart/electronic local anaesthetic assessment chart.

2.2.5. Observe for signs of local anaesthetic toxicity these should be recorded as above (2.2.4).

2.2.6. If observations are required differently, the administering anaesthetist will record the desired frequency on the anaesthetic chart or peri-operative book.

2.3. Clinical Problems

2.3.1. Inadequate Analgesia

2.3.1.1. Non-opioid analgesia should be given.

2.3.1.2. Additional opioid analgesia may also be given as prescribed provided it is clinically indicated with a pain score of 2 or more AND clinically safe: respiratory rate >8 per minute and sedation score 1-2.

2.3.1.3. This must be documented in the relevant notes and clinical observations including pain scores should be recorded.

2.4. Respiratory Depression

2.4.1. Spinal/Intrathecal Fentanyl / Diamorphine can cause sedation and respiratory depression. This is usually gradual in onset and detectable as a slow respiratory rate in a very sedated patient.

2.4.1.1. Increasing levels of sedation are an earlier warning sign of this complication than a slow respiratory rate.

2.4.1.2. The sedation score must be regularly measured on every patient who has received intrathecal Fentanyl / Diamorphine.

2.4.1.3. If the respiratory rate is less than 8 and / or sedation score 3, give 15 litres oxygen and inform medical staff. Consider giving naloxone.

2.4.1.4. If the respiratory rate <5 and sedation score 3, give naloxone.

2.4.1.5. Draw up 400mcg (1ml) of naloxone and 3mls of sodium chloride 0.9% and give in 1ml increments. Naloxone should be given in increments of 100mcg every 5 minutes.

2.4.1.6. This should be given until the respiratory rate >8 and sedation score <2.

2.4.1.7. Observe pain and sedation scores closely.

2.4.1.8. If not resolved after 0.4mg Naloxone, then seek further medical advice.

2.4.2. **Hypotension**

2.4.2.1. Moderate hypotension may occur.

2.4.2.2. If the systolic blood pressure falls below 90mm/Hg or the prescribed limit, then follow the trust guidelines and administer 250mls IV fluids over 15 minutes, give oxygen, increase frequency of observations and if no improvement then inform medical staff.

2.4.3. Nausea and Vomiting

Intrathecal Fentanyl / Diamorphine may cause nausea and vomiting. Treat with simple anti-emetics.

2.4.4. Pruritus

Pruritus is occasionally a side effect of Fentanyl / Diamorphine and can be treated either with oral anti histamines or with low dose naloxone.

2.4.5. Urinary Retention

This may require short-term urinary catheterisation.

2.4.6. Back Pain and Motor Weakness

Any complaint of increasing alteration of sensation in the legs or back pain, which is persistent, increasing and particularly referred to the legs, must be taken seriously. This must be referred to the anaesthetist responsible, the Pain team or the on call anaesthetist at once, to exclude the possibility of spinal cord compression, haematoma or abscess formation.

2.4.7. Headache

Severe frontal headaches may indicate a leak of cerebral spinal fluid. It may be relieved by laying the patient flat in bed, simple analgesia and replacement of fluids either orally or intravenously. This should be reported to the Pain team or the anaesthetist on call.

2.4.8. Local Anaesthetic Toxicity

Any signs should be reported immediately to medical staff e.g. Confusion, numb tongue double vision, limb twitching, convulsions, hypotension, arrhythmias, cardiac/respiratory arrest. See the reverse of the Analgesic Assessment Chart or the electronic local anaesthetic assessment chart for further guidance.

The Intra-lipid rescue box is available from theatres, or Eden ward if General Theatre is closed at night/weekends.

2.4.9. Relevant problems that occur after a patient has received a single dose spinal Fentanyl / Diamorphine must be documented in the appropriate patient records.

2.5. **Patients receiving Anticoagulation therapy:**

2.5.1. Patients receiving Anticoagulation therapy refer to Thrombosis Prevention and Anticoagulation Policy

2.5.2. Insertion and removal of epidural/intrathecal catheters should be 10-12 hours following last dose of low molecular weight heparin (LMWH).

2.5.3. Do not stop heparin infusions unless without permission from the medical/surgical team. Refer to Thrombosis Prevention Investigation and Management of Anticoagulation Clinical Guideline.

2.5.4. Medical/surgical/anaesthetic staff should be aware if a patient is receiving any of the above therapy prior to administering a Single spinal/intrathecal injection.

2.5.5. For any further advice please contact the Pain Service Team via Bleep at the Royal Cornwall Hospital.

3. Monitoring compliance and effectiveness

Information Category	Detail of process and methodology for monitoring compliance
Element to be monitored	Recognition of adverse effects following a Single Dose of Spinal / Intrathecal Fentanyl / Diamorphine
Lead	Pain Team
Tool	DATIX reports will be investigated.
Frequency	Datix reports will be reviewed annually to identify any trends and management of adverse effects.
Reporting arrangements	The review is reported to the inpatient pain lead consultant and the anaesthetic governance lead.
Acting on recommendations and Lead(s)	The inpatient pain team. Inpatient pain lead consultant
Change in practice and lessons to be shared	Required changes to practice will be identified and actioned within 1 month. A lead member of the team will be identified to take each change forward where appropriate. Lessons will be shared with all the relevant stakeholders.

4. Equality and Diversity

4.1. This document complies with the Royal Cornwall Hospitals NHS Trust service Equality and Diversity statement which can be found in the 'Equality, Inclusion & Human Rights Policy' or the Equality and Diversity website.

4.2. Equality Impact Assessment

The Initial Equality Impact Assessment Screening Form is at Appendix 2.

Appendix 1. Governance Information

Information Category	Detailed Information
Document Title:	Care of Adult Patients who have received a Single Dose of Spinal / Intrathecal Fentanyl / Diamorphine Clinical Guideline V10.0
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Date Issued/Approved:	January 2022
Date Valid From:	January 2022
Date Valid To:	January 2025
Directorate / Department responsible (author/owner):	Sarah Medlicott Pain Specialist Nurse
Contact details:	01872 252792
Brief summary of contents:	Guidelines for nursing staff caring for patients who have received a single dose of spinal or intrathecal anaesthetic of Fentanyl or Diamorphine
Suggested Keywords:	Spinal. Intrathecal. Spinal anaesthetic. Intrathecal Diamorphine. Intrathecal Fentanyl.
Target Audience:	RCHT: Yes CFT: No KCCG: No
Executive Director responsible for Policy:	Medical Director
Approval route for consultation and ratification:	Pain Services Department ACCT governance Policy Review Group
General Manager confirming approval processes:	ACCT General Manager
Name of Governance Lead confirming approval by specialty and care group management meetings:	Dr Alex Doyle
Links to key external standards:	Faculty of Pain Medicine (2021) Core Standards for Pain Management Services in the UK.

Information Category	Detailed Information
	Available from FPM-Core-Standards-2021_1.pdf. [Accessed 22/12/21]
Related Documents:	Association of Anaesthetists of Great Briton and Ireland, Obstetric Anaesthetists' Association and Regional Anaesthesia UK (2013) Regional anaesthesia and patients with abnormalities of coagulation. *Anaesthesia* 2013; 68: pages 966-72. Bromage PR (Ed) (1978). Epidural Analgesia, Bromage Score. Philadelphia. *WB Saunders*: pp 144. Macintyre.P, & Ready L (2001) Acute Pain Management. London. WB Saunders Rawal,N. (2002) Intraspinal Opioids in Rowbotham D, Macintyre P (eds). Clinical Pain Management: Acute Pain. London. Arnold. RCHT Aseptic Non-Touch Technique (ANTT) policy. RCHT Thrombosis Prevention and Anticoagulation Policy
Training Need Identified?	No
Publication Location (refer to Policy on Policies – Approvals and Ratification):	Internet & Intranet
Document Library Folder/Sub Folder:	Clinical / Pain

Version Control Table

Date	Version Number	Summary of Changes	Changes Made by
1 Mar 12	6	Now on current hospital template and headings. Amended; Page 6 Intra-lipid rescue box available from theatres,or Poldark ward if General	Sharon Dunstan Senior Pain Specialist Nurse.

Date	Version Number	Summary of Changes	Changes Made by
23 Jul 12	7	Amended; Page 1 Clinical Observations No1 Monitoring should be documented on the MEWS chart and Analgesic Assessment Chart.	Sharon Dunstan Senior Pain Specialist Nurse.
15/4/15	V8.0	General Rewording and reorganisation of contents onto new hospital template. 2.1.4. Inability to warn of spinal administration within electronic prescribing – warning removed, and replaced with advice that all ward staff should be informed of spinal administration and to check anaesthetic chart of postoperative patients 2.1.5 Advise to check anaesthetic chart for spinal anaesthetic. 2.3.9 Directed to check reverse of analgesic assessment chart for further guidance. 2.3.10 Intra-lipid now kept on Eden Ward out of hours rather than Poldark Ward.	Sarah Medlicott. Pain specialist nurse.
19/7/18	V9.0	Document reviewed and placed onto current hospital template Update Governance Information and IEIA forms	Sarah Medlicott. Pain specialist nurse.

Date	Version Number	Summary of Changes	Changes Made by
22/12/21	V10.0	Document reviewed and placed onto current trust template. Acute pain team references replaced with inpatient pain team The addition of electronic local anaesthetic assessment chart to record motor power and sensation added to summary, 2.2.1, 2.2.4, and 2.3.9 Removal of the requirement to complete a pink acute pain audit form. Removal of the summary box detailing acute pain management of patients following spinal analgesia. Documentation that the inpatient pain team no longer routinely review patients post single shot spinal anaesthetics (see anaesthetic governance May 2021 for anaesthetic agreement). 2.1.5 Advice regarding escalation of any concerns of patients following single shot spinal anaesthetics and removal of the requirement to complete the pink pain audit forms. 2.4 Removal of hyperlinks for related trust documents. Changes to the monitoring compliance and effectiveness. Addition of the Faculty of Pain Medicine (2021) Core Standards for Pain Management Services in the UK. Available from FPM-Core-Standards-2021_1.pdf. [Accessed 22/12/21]	Sarah Medlicott. Pain specialist nurse..

Appendix 2. Equality Impact Assessment

Section 1: Equality Impact Assessment (EIA) Form

The EIA process allows the Trust to identify where a policy or service may have a negative impact on an individual or particular group of people.

For guidance please refer to the Equality Impact Assessment Policy (available from the document library) or contact the Equality, Diversity & Inclusion Team rcht.inclusion@nhs.net

Information Category	Detailed Information
Name of the strategy / policy / proposal / service function to be assessed:	Care of Adult Patients who have received a Single Dose of Spinal / Intrathecal Fentanyl / Diamorphine Clinical Guideline V10.0
Directorate and service area:	ACCT, Pain Services
Is this a new or existing Policy?	Existing
Name of individual completing EIA (Should be completed by an individual with a good understanding of the Service/Policy):	Sarah Medlicott, Pain Specialist Nurse
Contact details:	01872 252172

Information Category	Detailed Information
1. Policy Aim - Who is the Policy aimed at? (The Policy is the Strategy, Policy, Proposal or Service Change to be assessed)	Guidelines for nursing staff caring for patients who have received a single dose of spinal/intrathecal Fentanyl or Diamorphine
2. Policy Objectives	To maintain safe standards of care for patients following spinal/intrathecal anaesthesia and to ensure any early signs of adverse effects are recognised and managed appropriately.
3. Policy Intended Outcomes	Provides guidance to staff regarding care standards for patients who have received single shot spinal/intrathecal anaesthesia. To ensure any side effects or complications are identified early and dealt with in a safe and evidence-based manner. Any training requirements are identified.
4. How will you measure each outcome?	Monitoring of Datix reports

Information Category	Detailed Information
5. Who is intended to benefit from the policy?	Patients and staff
6a. Who did you consult with? (Please select Yes or No for each category)	• Workforce: Yes • Patients/ visitors: No • Local groups/ system partners: No • External organisations: No • Other: No
6b. Please list the individuals/groups who have been consulted about this policy.	**Please record specific names of individuals/ groups:** Acute and Chronic pain teams
6c. What was the outcome of the consultation?	No Changes required
6d. Have you used any of the following to assist your assessment?	**National or local statistics, audits, activity reports, process maps, complaints, staff or patient surveys:** No

7. The Impact

Following consultation with key groups, has a negative impact been identified for any protected characteristic? Please note that a rationale is required for each one.

Where a negative impact is identified without rationale, the key groups will need to be consulted again.

Protected Characteristic	(Yes or No)	Rationale
Age	No	
Sex (male or female)	No	
Gender reassignment (Transgender, non-binary, gender fluid etc.)	No	
Race	No	
Disability (e.g. physical or cognitive impairment, mental health, long term conditions etc.)	No	
Religion or belief	No	

Protected Characteristic	(Yes or No)	Rationale
Marriage and civil partnership	No	
Pregnancy and maternity	No	
Sexual orientation (e.g. gay, straight, bisexual, lesbian etc.)	No	

A robust rationale must be in place for all protected characteristics. If a negative impact has been identified, please complete section 2. If no negative impact has been identified and if this is not a major service change, you can end the assessment here.

I am confident that section 2 of this EIA does not need completing as there are no highlighted risks of negative impact occurring because of this policy.

Name of person confirming result of initial impact assessment: Sarah Medlicott, Pain Specialist Nurse

If a negative impact has been identified above OR this is a major service change, you will need to complete section 2 of the EIA form available here:
Section 2. Full Equality Analysis