Mid Essex Hospital Services NHS
NHS Trust

Patient Controlled Analgesia (PCA) Guidelines Integrated Pain Management Service (IPMS)	**Type: Clinical Guideline** **Register No:** 06010 **Status: Public**

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Consulted With	**Post/Committee/Group**	**Date**
Dr Alexander-Williams Dr Tom Durcan (Lead for Acute Pain)	Pain Consultants	11/8/2017
Lynne Mustard	Pain Service Manager	11/8/2017
Alison Bloor	Pain Specialist Pharmacist	11/8/2017
Professionally Approved By	Lead Consultant, IPMS Dr Alexander-Williams	11/8/2017

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Author/Contact for Information	Lynne Mustard
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5.0	L Mustard	27th January 2011
6.0	Jayne Somerset	September 2014
6.1 Inclusion to section 5.4 Re; no further opioids whilst PCA is in progress, and 5.5 long term opioid users and their pain management	Jayne Somerset	17 March 2015
7.0 Review	Jayne Somerset	16 October 2017
7.1 Inclusion of 6.2.2	Jayne Somerset	18th July 2018

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1.0 Purpose

1.1 This guideline is designed to provide instruction and guidance for medical and nursing staff caring for patients with PCA (Patient Controlled Analgesia). The guideline also includes information relating to Nurse Controlled analgesia (NCA) which may be used in ITU settings only after ITU Consultant approval.

2. 0 Staff and Training

2.1 This guideline is aimed at all qualified nursing and medical staff.

2.2 Nursing staff managing patients receiving PCA / NCA infusions must have the appropriate knowledge and clinical skills to provide safe, evidence based care.

2.3 Training is provided within the Trust by the IPMS (Integrated Pain Management Service), and assessment of competency arranged with the pain link nurses.

2.4 A teaching programme for both medical and nursing staff is undertaken in liaison with the Training and Development dept.

3.0 Scope of practice

3.1 PCA: Patient Controlled Analgesia is a method of delivery for intravenous opioids at the patient's discretion, using a bolus facility button attached to a Trust approved infusion pump device.

3.2 NCA: Nurse controlled analgesia incorporates the same equipment and principle of PCA but puts the control in the hands of the nurse. The patient is protected from over administration by careful observations. For nurse controlled analgesia one nurse per shift is solely responsible for pressing the button and delivering the drug.

3.3 Estimated activity per annum: 300 PCA

- 24 hour cover by IPMS
- A prompt response service operates by pager system
- Clinical Nurse Specialists are available Monday to Friday, 8.00hrs to 17.00hrs and Saturday from 08.00 to 12.30hrs.
- On-call service provided out of hours by anaesthetist
- 3 consultant rounds per week
- Training and education provided by IPMS

4.0 Policy

4.1 All PCAs / NCAs are schedule 2 controlled drugs and must prescribed by qualified medical staff or qualified independent prescriber.

4.2 The PCA / NCA programme is set and initiated by an anaesthetist, theatre recovery staff, critical care staff with appropriate skills, or a member of the IPMS.

4.3 Skill mix (i.e. appropriately trained nurses) and staffing levels on the ward are sufficient to ensure safe care of the patient. The nurse in charge should inform the anaesthetist or the IPMS prior to the start of the list if these criteria cannot be met.

4.4 PCA / NCA is connected to the patient by qualified medical staff, the IPMS or any staff current in IV therapy skills. Blood or blood products are not to be infused through the PCA line, including the arm of the y-set extension.

4.5 Patient selection and informed verbal consent to PCA will be part of the operation consent process.

5.0 Analgesia

5.1 The common analgesic solution used for PCA / NCA within the Trust is:

MORPHINE 1mg per ml in 100mls of sodium chloride 0.9% (for use via IPMS approved infusion pump)

5.2 Alternatives are fentanyl 10mcgs per ml or oxycodone 1mg per ml IV.

5.3 The common bolus dose for an adult is morphine 1mg with a 5 minute lockout. Children aged 5 and over may be prescribed a PCA at the discretion of the anaesthetist (bolus 0.5mg or 1mg depending on body weight)

5.4 No other opioids are to be administered to the patient when the PCA / NCA is in progress.

5.5 Patients receiving long term opioids prior to PCA / NCA commencement ideally need to be assessed by the anaesthetist pre-operatively. Could you please inform the IPMS of patient's receiving long term opioids, if PCA / NCA use is determined, as soon as possible, in order to optimise their pain relief.

6.0 Management of the patient receiving IV opioid PCA (Patient Controlled Analgesia) / NCA (Nurse controlled analgesia)

6.1 Patient Monitoring

6.1.1 The following monitoring is required:

- Respiration rate
- Pulse rate
- Blood pressure
- Sedation score (0 - 3),
- Pain assessment (0 - 3)
- Nausea and vomiting (n/v)

PAR + CEWT (child)

6.1.2 When recording observations on the Vital PAC system for PCA
Total / good tries are to be recorded as **U** (unmeasurable) as they are not required. This measurement has not shown to add clinical significance to pain assessment
Record at 15 minute intervals for first 2 hours, 30 minute intervals for next 2 hours, then 1 - 2 hourly as clinically indicated. After 24 hours, 4 hourly observations may be agreed with senior ward staff as clinically appropriate.

The volume to be infused **(VTBI)** of the solution used must be recorded hourly as read from the pump display

For patients receiving NCA, the amount of NCA delivered needs to be recorded and a running total of analgesia delivered needs to be easily accessible for review.

6.1.3 Cannula site is checked regularly.

6.1.4 The patient is seen at least once daily by the pain team to make a clinical assessment. The patient's progress and further management is discussed with the ward staff. Problems that arise at other times must be communicated to the IPMS. Outside office hours, the on-call ward SHO should be contacted for clinical problems. The on-call anaesthetist will provide expert/emergency cover.

6.1.5 NCA can only be used in the ITU setting. Once the patient is able to use the PCA this must be documented and prescription reviewed to conform to the Trust PCA prescription.

6.2 **Programme Alterations**

6.2.1 Alterations in the programme setting are done by an anaesthetist or a member of the IPMS, according to Trust protocol.

6.2.2 A clinician bolus to improve analgesia can be delivered via the PCA infusion device by anaesthetists and pain CNSs proficient in the management of the device. IV drug policy standards apply. Relevant specialist competencies must have been completed by the CNS.

6.3 **Technical Problems**

6.3.1 Technical problems with the pump must be referred to IPMS or on call anaesthetist as soon as possible. Replacing the infusion bag or the batteries, when needed, should be done by the ward nurse as soon as possible to avoid deterioration of the patient's pain control.

6.4 **Discontinuation of the PCA** is agreed with the patient in liaison with the IPMS, and appropriate alternative analgesia prescribed and offered.

6.4.2 Analgesic needs, following removal of PCA / NCA, to be assessed and evaluated regularly with the patient, and adjusted accordingly.

6.4.2 Any remaining PCA / NCA should be destroyed according to the Controlled Drugs policy 08083.

7.0 Infection control

7.1 The infection prevention practice within MEHT is for all staff to have strict hand hygiene before and after patient contact.

7.2 Any equipment must be cleaned between patients unless it is a single use item which will be disposed off appropriately as per the Waste Management Policy

7.3 Aprons and gloves to be worn as appropriate.

8.0 Non-Compliance with this Guideline

8.1 Inappropriate use of the PCA / NCA which will lead to opiate induced complications:

8.1.1 **Overuse** – i.e. by persons other than the patient pressing the bolus button, may precipitate confusion, hallucinations, nausea and vomiting, convulsions, and/or respiratory depression leading to respiratory arrest, loss of consciousness and death.

8.1.2 **Underuse** – i.e. withdrawal of, or inaccessibility to, the bolus facility or failure to address technical problems such as machine problems or empty chamber, may lead to uncontrolled pain and distress.

8.2 A Risk event form must be completed for each event of non-compliance with this Guideline which must be forwarded to the Trust Risk Manager.

9.0 Audit & Monitoring

9.1 Each patient receiving PCA / NCA will be assessed at least once daily by the Pain Team. Data recorded will be:

- Patient Satisfaction
- Pain levels
- Nausea
- Vomiting incidence
- Any adverse clinical events
- Incidence of non-compliance with the guideline

9.2 Individual incidents of non-compliance are addressed by the Pain Service immediately, and risk assessments done as indicated.

9.3 Ensuing actions are undertaken by the Pain Service to ensure omissions and errors are brought to the attention of the appropriate person(s) and to reduce the risk of repeat: i.e. training and education or system reviews.

9.4 Data are entered onto a central database held by the Pain Service and evaluated yearly for trends at a Departmental meeting. Dissemination of data via the appropriate forum (e.g. audit sessions, MDT), is the responsibility of the lead Consultant of the IPMS.

10.0 Communication and Implementation

10.1 Corporate services will ensure that the guideline is uploaded to the intranet and the website and notified to staff via Focus.

10.2 The IPMS will post quarterly bulletins to all Trust staff via Focus.

10.3 All link nurses will be informed of updated guidelines at regular meetings for them to disseminate to their areas/wards.

10.4 Medical staff will be informed of revised guidelines via senior medical staff within the IPMS at audit meetings and twice yearly teaching sessions for all FY1 and FY2

doctors. Newly appointed anaesthetic trainees will receive written information in their induction pack.

11.0 References

DoH Essence of Care. Benchmarks for prevention and management of pain. Ocotber 2010

Ballantyne J C, Carr D B et al. Postoperative Patient-Controlled Analgesia: Meta-analysis of initial randomised control trials. Journal of Clinical Anaesthetics: Vol 5, May/June 1993.

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Intrurrisi C. Clinical Pharmacology of Opioids for Pain. Clinical Journal of Pain: Vol 18(4), July/August 2002.