Dartford and Gravesham NHS
NHS Trust

Patient Controlled Analgesia Guidelines

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Patient controlled analgesia (PCA) is more commonly used to describe a method of analgesia, which employs a sophisticated infusion device and allows patients to self-administer opioids, usually intravenously or subcutaneously. Each bolus dose is predetermined and the timing or lockout device prevents too much analgesic being delivered in too short a time. Patients are the best people to assess their own pain. In clinical practice this Trust uses a background infusion or a bolus delivery of an opioid analgesic by the patient.

The intravenous route is considered to be the most rapid and reliable form of drug administration.

PCA provides flexible pain control that is tailored to patients' individual requirements and bypasses the problems experienced with intramuscular injections. The intramuscular method is safe but research has shown it is not effective in relieving pain.

Patients with PCA's may be nursed across the trust in the Intensive Care Unit, High Dependency Unit, Surgical and Orthopaedic wards, Post Anaesthetic Care Unit and Oak ward. Nursing staff within these areas have received training and competent to care for patients with this method of post operative analgesia.

Role of the Anaesthetist and the Acute Pain Nurse

It remains the responsibility of the anaesthetic staff to support staff on the wards caring for patients with PCA's. The Acute Pain Nurse will be available Monday to Friday between 8.00-4.00 p.m. for advice and assessment of patients. Medical support is also provided on a daily basis by the anaesthetic team. Out of these hours the Anaesthetist on call will be available. The acute pain team will visit patients with PCA's at least daily until the PCA has been discontinued. If a patient comes to the ward via ITU/HDU, with a PCA infusion the ward needs to inform the pain team to initiate daily reviews.

The initial PCA settings are checked by two members of staff. The senior checker must be a Doctor, operating department Practioner or a qualified nurse. The second person can be any of the above. Recovery nurses should also check the pump.

Role of Nursing and Midwifery Staff

Under the UKCC's Scope of Professional Practice (1992) nurses should maintain and improve their professional knowledge and experience in caring for patients. Keeping in line with the NHS Plan (2000) nurse's midwives and therapists will be empowered to undertake a range of clinical tasks, which will require practitioners to constantly update their knowledge and expertise. Nurses caring for patients with PCA's should attend a theoretical teaching programme and have undertaken clinical competency and demonstrate that they are competent in using infusion delivery pumps. Training for PCA pumps will be arranged through the Acute Pain Nurse.

At the beginning of each shift and when a different nurse takes over the care of the patient, a qualified nurse must check the pump setting to ensure the settings is the same as the prescription chart.

The Acute Pain team will communicate any changes regarding the patient pain management to the qualified nurse responsible for that patient.

PCA pumps are cleaned prior to being returned to theatre.

The Registered Nurse must be aware of and demonstrate their accountability, including their own abilities and limitations when caring for a patient who has a PCA

Patient Care
Patients with PCA's require support and explanation. It is important that patients understand what the pump is for and how to use it. The proper time to educate patients about PCA's is before surgery. The patient must be the only person to activate the pump. Nurses have an important role in providing explanations and giving practical demonstrations. They should also reassure the patient and provide information on safety features to allay fears about overdose or addiction.
There are several key points that should be emphasised to the patient:

- PCA is not a new therapy
- PCA is tried and tested, and is safe
- There is no danger of addiction

Depending on the patient's condition the PCA is usually only used for a short period of time and most progress to oral analgesia after 24 or 48 hours.

Contraindications
Recognised contraindications are:
- Patient rejection
- Patient inability to comprehend technique (e.g. language barrier)
- Extremes of age – the dosage and lockout time may require adjustment in the elderly and for paediatric use.

Special Considerations
Use with caution in patients who have;
- Respiratory problems (severe COPD**)**
- Severe cardiac problems
- Renal Failure, renal and biliary colic
- Confused or mentally ill patients
- Allergy to Morphine or related drugs

Monitoring the Patient

In addition to performing routine postoperative observation (RR, BP and HR) regular recording of sedation and pain assessment should be made. Observation should be recorded as specified on the PCA assessment chart.

Nausea and Vomiting – the causes of postoperative nausea and vomiting (PONV) are multifactorial. Opioids may also induce PONV, which may require treatment with an anti-emetic. **The anti-emetic of choice in this trust in Cyclizine.**

Pruritis (itching) - is thought to result from the activation of opioid receptors in the spinal cord. It is common so be aware of signs of patient discomfort such as rubbing, scratching the arms, face and neck. Monitor the patient for signs of allergic reaction such as increased temperature, dysponea, or oedema. The nurse should then inform the Doctor of signs and symptoms.

Urinary Retention – may be due to opioids inhibition of the parasympathetic nervous system on the bladder. Important actions include palpation of the bladder for distension, monitoring intake and output closely. Reassurance should also be give to the patient. Urinary retention usually occurs in the first 24-48 hours and often resolves spontaneously.

Hypotension –The aetiology of the hypotension should be determined. A falling BP associated with an increased pulse rate; decreasing urine output, loss of skin turgour and a dry mouth should indicate the need for volume replacement. Volumes should ideally be replaced with Colloid fluid (plasma substitutes.) If systolic falls <85mmHg stop the PCA infusion, lay flat – not head down, elevate legs only – give 4litres of O2/min. Contact duty anaesthetist.

Sedation – Over sedation is a warning of impending respiratory depression.

Respiratory Depression – regular assessment of the level of sedation, the character of respiration and O2 saturation's are essential for patients who are receiving opioid therapy. Using a sedation score will enable changes in the patient's state of consciousness to be determined. Emergency respiratory equipment should be made immediately available. If RR <8min and sedation score >2 stop the PCA and call the duty anaesthetist.

Drugs

The opioid of choice in this Trust is usually Morphine although Pethidine may be considered in exceptional circumstances; **this should be discussed with the Acute Pain Team. The Doctor prescribing the analgesia is solely responsible.**

Opioids are thought to act upon receptors in the spinal column and CNS and produce analgesia, euphoria and sedation. They can also produce unpleasant side effects such as respiratory depression, nausea and vomiting, constipation and pruritis. **No additional opioids are to be given to the patient except if the anaesthetist orders them.**

PCA bags are a total of 100mls with 100mg of Morphine (pre-mixed) Wasted PCA infusions **must** be recorded in the CD book/PCA form or on the patients Prescription charts as stipulated in the Destruction of Controlled drugs policy.

A dedicated PCA administration set incorporating an integrated non reflux valve and an anti- siphon valve is used. The sets should be changed every 72 hours. Three way taps must not be used in conjunction with PCA administration sets as this practice will compromise the function of the of the integrated non reflux valve within the set.

Anti emetics and Naloxone should also be prescribed as needed for patients with PCA's.

Discontinuing the PCA

It is likely that the patient will require the PCA for the first 24-48 hours. Unless the patient is NBM oral analgesia can be initiated. PCA's should only be discontinued with consultation with a member of the Acute Pain team. If the patient is progressing to oral analgesia, give the first dose at least one hour prior to the removal of the pump.

Acute Pain Service August 2005. Review August 2007

Name **Date**

Name **Date**

References

Bibby P (2001) Postoperative nausea management and patient controlled analgesia British Journal of Nursing Vol. 10 No 12, 775-779

Department of Health (2000) A Health Service for all the talents: Developing the NHS Workforce London: The Stationary Office

Seymour J (1996) Analgesia under patient Control Nursing Times Vol. 92, No 1

UKCC (1992) The Scope of Professional Practice UKCC London

Warwick P (1992) Making Sense of The Principles of Patient–Controlled Analgesia Nursing Times Vol. 88 No 41 38-40