Bradford Teaching Hospitals NHS
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Post-Operative Analgesia in Maternity Unit

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Policy for management of postoperative analgesia on the maternity unit

Introduction

Most women requiring operative intervention on the maternity unit undergo lower segment caesarean section (LSCS) and these guidelines are written with this in mind. Approximately 70% receive spinal anaesthesia, 10% general anaesthesia and 20% epidural anaesthesia.

1) Initial Routine management

Spinal anaesthesia

Most mothers will receive intrathecal diamorphine at the time of the spinal. The spinal local anaesthetic may provide analgesia for a few hours following surgery but intrathecal diamorphine may extend analgesia for 12 to 18 hrs postop. (n.b. intrathecal opioids are best avoided if IM pethidine has been given within the preceding 2 hrs because of the danger of respiratory depression.) All women should receive diclofenac 100mg PR at the end of surgery, unless this is contra-indicated. (See below). Regular NSAID – ibuprofen 400mg PO 6hourly or diclofenac 50 mg PR 8 hourly and oral paracetamol thereafter is satisfactory for most people who have received IT diamorphine, but some will require additional morphine. This can be given as oramorph or by IM injection. (dosage given below under *supplementary opioid analgesia*) Opioids should not be given for at least 6 hours after the IT diamorphine without consultation with the anaesthetist on the delivery suite. Some women suffer severe pain following the regression of the spinal anaesthetic. A titrated dose of IV opioid may be required to achieve analgesia (e.g. 10-15mg morphine). The dose of morphine needed will suggest an appropriate dose for any subsequent dose prescribed. The woman may be on the postnatal ward by this time. Appropriate instructions about postoperative monitoring following such a dose must be given to the ward staff.

Mothers who have **not received IT diamorphine** should receive ibuprofen 400mg PO 6 hourly (or diclofenac 50mg PR 8 hourly) regularly and be prescribed regular paracetamol. Oramorph should be prescribed as needed. Suggested dosage is 10-20mg 2 hourly. They also may require an IV loading dose of opioid to achieve initial analgesia, as outlined above.

General anaesthesia

General anaesthesia for LSCS will normally include IV opioids. Further opioid will often be required in the immediate postoperative period to achieve adequate analgesia. Morphine, titrated IV is a good way of achieving this. The dose required may vary considerably. A range of 5-20mg will be satisfactory in most women. IV Paracetamol 1g should normally be given as part of the general anaesthetic. Rectal diclofenac, if not contra-indicated, should be administered at the end of surgery. Bilateral TAP blocks can be administered at the end of surgery. Management thereafter can be similar to that used following spinal anaesthesia when IT diamorphine has not been administered.

Epidural anaesthesia

Epidural diamorphine 3mg is given routinely as part of an epidural anaesthetic for a LSCS. Subsequent management is as following spinal anaesthesia. As noted earlier, care should be exercised in the use of epidural or spinal opioids if parenteral opioids, such as pethidine, have been given in labour.
It has not been routine practice on this unit to continue the epidural for postoperative analgesia on the post-natal wards.

2) Further routine management

a) Paracetamol

Should be prescribed regularly(1g 6hourly po or iv) for all mothers unless they are allergic to it, as it both improves analgesia and reduces requirements for opioid analgesics. If the mother's body weight is less than 50 kg please reduce the dose.

b) NSAIDS

These may be very useful for postoperative analgesia either alone or in combination with opioids. Patient feedback suggests that diclofenac is a very effective analgesic post LSCS. However, supply issues with oral diclofenac necessitate the use of ibuprofen as the oral NSAID of choice. Suggested dose 400mg PO 6 hourly. Ibuprofen is not

readily available in rectal or parenteral formulation for adult use, so diclofenac may be prescribed for PR administration. Suggested dosage is 50mg 8hourly.

Active peptic ulceration and allergy are absolute contraindications to NSAIDS. Care should be exercised in people with a history of peptic ulceration, renal impairment, in some asthmatics and in mothers with pre-eclampsia. In this latter situation their use should be discussed with the obstetric team.

c) Supplementary opioid analgesia
Oramorph 10-20mg 2 hourly po as needed. If the mother is unable to take oral medications morphine may be administered IM; suggested dosage 10-15 mg 2-3 hourly. As stated earlier women receiving IT or epidural diamorphine should not receive any parenteral or oral opioid for 6 hours post-spinal without discussion with an anaesthetist. If the mother cannot take NSAIDs then regular tramadol 100mg po 6 hourly may be prescribed in place of the NSAID.

d) Post-operative Nausea and Vomiting
This should be treated with cyclizine 50mg IV/IM 8 hourly or ondansetron 4mg IV 8 hourly.

e) Pruritus
This may be a problem with opioid analgesia given by any route, but is particularly likely to complicate epidural or intrathecal use. If it is troublesome chlorphenamine 10mg IV (or 4mg PO) may be prescribed. Ondansetron 4mg IV may also be of help.

3) PCAS
PCAS may be used when there is difficulty in obtaining adequate analgesia with the routine approach. This may occur when:-

a) NSAIDS are contra-indicated
b) Surgery is complicated - E.g. caesarean hysterectomy
c) Opioid demands are high - e.g. opioid addiction
d) Patient request

Successful PCAS requires:-

1) A correctly operating and checked PCA pump and lines. Only Alaris PCAM pumps are to be used in the maternity unit.
2) Appropriate settings of the pump. The standard settings of morphine 1mg bolus with 5 minute lock-out and no background infusion is a good starting point, but should be adjusted if analgesia is inadequate.
3) Patient understanding of what is proposed.
4) The achievement of adequate analgesia BEFORE starting the PCAS. (N.b. following spinal anaesthesia patients may require an intravenous loading dose of opioid to achieve adequate analgesia before starting the PCAS as the spinal block recedes.)
5) The prescribing of anti-emetics. Cyclizine 50mg IM or slow IV or ondansetron 4mg IV are acceptable.

Stopping the PCAS
It is reasonable to discontinue PCAS when morphine demands become low (for example <15mg in 12hrs) and if the patient is able to take oral analgesia.

Recommendations
Routine use of ibuprofen PO (or diclofenac PR) and oral paracetamol with supplementary morphine where appropriate.

PCAS where indicated, together with anti-emetic. (see above)

Audit/monitoring
All mothers will be followed up on the day after surgery to check for recognised complications of anaesthesia. Specific enquiries should also be made about the adequacy of postoperative pain relief and maternal satisfaction with the procedure. All data will be entered onto the anaesthetic audit computer on delivery suite. Regular reports

will be produced under the direction of the clinical lead for obstetric anaesthesia with information about complication rates and satisfaction with analgesia. These will be presented and discussed at anaesthetic clinical governance meetings. Annual reports will be made available to the Labour Ward Forum.

References

1. Collis, R E.(2002), "Anaesthesia for Caesarean Section: General Anaesthesia" in Collis R, Platt F, Urquart J (Eds) *Textbook of Obstetric Anaesthesia* Greenwich Medical Media, London.
2. Collis, R E.(2002), "Regional Anaesthesia for Caesarean Section" in Collis R, Platt F, Urquart J (Eds) *Textbook of Obstetric Anaesthesia* Greenwich Medical Media, London.