ULSTER COMMUNITY & HOSPITALS TRUST
WOMAN & CHILD HEALTH DIRECTORATE

GUIDELINE: REMIFENTANIL PATIENT CONTROLLED ANALGESIA FOR LABOUR

1.0 INTRODUCTION

1.1 Remifentanil has been identified as a safe and effective option of analgesia for use in the intranatal period. Acting within 1-2 minutes and suited to patient controlled administration, this offers another analgesia choice for women in labour at the Ulster Hospital.

2.0 INDICATIONS FOR REMIFENTANIL PCA

2.1 Remifentanil PCA is an alternative to pethidine in patients who do not want, or cannot have, an epidural.

2.2 Remifentanil is currently not licensed for use via PCA and so must be prescribed by an anaesthetist or obstetrician prior to setting up. Only midwives who have undergone a period of supervised practice and have been deemed competent may administer this infusion (see Appendix 1).

3.0 CRITERIA FOR USE

3.1 In general, any woman being offered remifentanil PCA should be more than 36 weeks' gestation and be in established labour.

3.2 If remifentanil is being considered for use at a gestation of less than 36 weeks a senior obstetrician must document in the clinical notes either the non-viable status of the fetus or specify the reason for requesting remifentanil in that case.

3.3 Entonox may be used in addition.

3.4 SpO₂ monitoring must be established before the woman starts using the PCA and must be monitored continuously while the remifentanil PCA is being used.

3.5 A remifentanil observation chart must be completed while the PCA is in situ. (Appendix 2)

3.6 A midwife must be assigned to give one to one care
4.0 CONTRAINDICATIONS FOR REMIFENTANIL PCA

- Allergy to opioid drugs
- Multiple pregnancy
- Pre-eclampsia
- Other parenteral opioid administration within preceding four hours

5.0 PROFESSIONAL ROLES

5.1 Patient preparation:

- The patient should be issued with, and have read, the remifentanil PCA patient information leaflet.
- The patient should be informed of the possible side-effects including drowsiness, itch, nausea and dizziness.
- In particular the woman should be informed that approximately one woman in ten using remifentanil PCA will experience transient lowered oxygen saturation levels requiring the administration of additional oxygen via nasal specs.
- A dedicated intravenous cannula (22g Blue or 20g Pink) is required.
- The patient should be shown how to use the PCA and should be told to press the button just before or at the start of a contraction
- A pulse oximeter (oxygen saturation) probe must be attached before the PCA is started.

5.2 Equipment required:

- 50 ml bag saline
- 2 mg ampoule of Remifentanil (checked by two registered midwives)
- Dedicated remifentanil PCA pump set to deliver 1ml (40 mcg) bolus over 15 seconds with a 2 min lockout
- Sims-Graseby "Flo-Safe" extension set

5.3 Syringe preparation:

1. Remifentanil solution to be reconstituted as per attached schedule by an appropriately trained midwife. (See attached training record sheet, Appendix 1)
2. Final solution concentration to be 40 micrograms/ml of Remifentanil

*N.B. Remifentanil is stable for 24 hours at room temperature after reconstitution
6.0 OBSERVATIONS

β Remifentanil PCA observation sheet to be completed for all women using Remifentanil (Appendix 2)
β A sedation score is to be recorded every 30 minutes (see sedation scale below)
β Continuous SpO$_2$ monitoring must be established prior to starting PCA and recorded on obs sheet
β CTG monitoring is not required unless otherwise indicated

**NOTE:** Sedation score is recorded on a scale from 1-5:-

1 Fully awake
2 Drowsy
3 Eyes closed but rousable by voice
4 Eyes closed but rousable by physical stimulus
5 Eyes closed and not rousable

6.1 Indications for contacting the anaesthetist:-

β A sedation score of less than 3 (eyes closed but rousable by voice)
β Respiratory rate of less than 8 breaths per minute
β SpO$_2$ remaining below 90% despite oxygen via nasal specs

6.2 Points of safety:-

β Always use a dedicated cannula
β Always flush the cannula after the PCA is removed with 5 ml saline
β Do not give any other drugs via the PCA cannula
β Only the patient is to use the PCA button
β The PCA button is not to be pressed by midwifery staff or the patient's relatives
β The PCA can be used during delivery and for the repair or tears and episiotomies

______________________           ________________________
Mrs. E. McElkerney    Dr. R.A. Hamilton
Directorate Manager   Clinical Director
Woman & Child Health Directorate Woman & Child Health Directorate

_____________________
Dr. D. Hill
Consultant Anaesthetist

Guideline written by D. Hill & E. Madden, November 2002
Reviewed November 2003 & October 2005 by D. Hughes
Review date: October 2008
APPENDIX 1

CLINICAL PRACTICE

REMIFENTANIL 50 ML SYRINGE INFUSION

NAME OF MIDWIFE: ______________________________

Observation of 50 ml syringe Remifentanil infusion

<table>
<thead>
<tr>
<th>DATE</th>
<th>NAME OF RECIPIENT</th>
<th>DRUGS DRAWN UP</th>
<th>SIGNATURE OF ANAESTHETIST</th>
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Supervised practice of 50 ml syringe Remifentanil infusion

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I hereby confirm that the above-named midwife has carried out, under supervision, Remifentanil 50 ml syringe infusion and has reached a satisfactory level of competence.

Signature of Anaesthetist: __________________  Date: _______________

Signature of Midwife: ______________________  Date: _______________

Please return this form to Delivery Suite Manager
## APPENDIX 2
### REMIFENTANIL ANALGESIA

<table>
<thead>
<tr>
<th>Patient Label</th>
<th>Pain Score</th>
<th>Sedation Score</th>
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<tbody>
<tr>
<td></td>
<td>0 No pain</td>
<td>1 Fully aware</td>
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<tr>
<td></td>
<td>1 Slight pain</td>
<td>2 Drowsy</td>
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<td></td>
<td>2 Fair pain</td>
<td>3 Eyes closed but rousable by voice</td>
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<td></td>
<td>3 Moderate pain</td>
<td>4 Eyes closed but rousable by physical stimulus</td>
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<td>4 Severe pain</td>
<td>5 Eyes closed and not rousable</td>
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<tr>
<td></td>
<td>5 Extreme pain</td>
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### OBSERVATIONS TO BE HALF HOURLY

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<th>Patients Ob</th>
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