

# PRESCRIPTION CHART

## Intravenous Nurse/Patient Controlled Analgesia

WARD

Pain Control Service

Great Ormond Street Hospital for Children

NHS Foundation Trust, Great Ormond Street, London, WC1N 3JH

IV NCA / PCA

Oxycodone

+ Ketamine

| SURNAME | FIRST NAME | HOSPITAL NUMBER | D.O.B. | AGE | WEIGHT |
|---------|------------|-----------------|--------|-----|--------|
|---------|------------|-----------------|--------|-----|--------|

| ALLERGIES ? | SPECIAL INSTRUCTIONS  |
|-------------|---|
|             | <ul style="list-style-type: none"> <li>Ensure protocol is printed on the back of this prescription</li> <li>Use in conjunction with Trust Clinical Practice Guidelines</li> </ul> |

|  |  |       |                    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--|--|-------|--------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| <b>OXYCODONE</b><br>DOSE (≤ 50 kg one mg/kg) (> 50 kg 50 mg) mg  |  | DATE  |                    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>MAXIMUM VOLUME</b> in any 4 hour period<br>excluding Loading Dose or Extra Bolus<br>20 ml   |  | HR    |                    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>+ KETAMINE</b><br>DOSE (≤ 50 kg 1 or 2 mg/kg) (> 50 kg 50 or 100 mg) mg<br><br>made up to 50 ml with 0.9% sodium chloride or 5% glucose<br>Tick which solution to be used <input type="checkbox"/> <input type="checkbox"/> |  | MIN   |                    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>PCA</b><br>BACKGROUND 0 – 0.2 ml/hr<br>BOLUS 0.5 – 2 ml<br>LOCKOUT 5 – 10 min<br><b>NCA</b><br>BACKGROUND 0 – 1 ml/hr<br>BOLUS 0.5 – 1 ml<br>LOCKOUT 20 – 30 min<br>LOCKOUT ICU ONLY 5 minutes                              | <b>DOSE RANGE</b><br>0 – 0.2 ml/hr<br>0.5 – 2 ml<br>5 – 10 min<br><b>DOSE RANGE</b><br>0 – 1 ml/hr<br>0.5 – 1 ml<br>20 – 30 min<br>5 minutes | ROUTE | • EXTRA BOLUS DOSE |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | IV    | • LOAD DOSE        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>LOADING DOSE OR EXTRA BOLUS</b><br>Oxycodone: 10 – 100 micrograms/kg (0.5-5ml)<br>MAX DOSE: 100 microgram/kg to max of 5mg  |  |       | • SYRINGE CHANGE   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| START DATE   | SIGNATURE  | BLEEP | SIGN               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 0577  |                    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PHARMACY USE   |  |       |                    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

### AS REQUIRED DRUGS

|  |           |          |                               |            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--|-----------|----------|-------------------------------|------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| <b>NALOXONE</b> For respiratory depression |           |          |                               | DATE       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DOSE PRN                                   | other     | ROUTE(S) | Additional instructions       | HR         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |           | IV       | 4 micrograms/kg (Max 200 mcg) | MIN        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| micrograms                                 |           | MAX FREQ | RESP RATE                     | DOSE GIVEN |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |           | STAT     | <                             | ROUTE      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| START DATE                                 | SIGNATURE | BLEEP    | ..... breaths/min             | SIGN       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |           | 0577     |                               |            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PHARMACY USE                               |           |          |                               |            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Protocol overleaf

# Protocol for the use of Oxycodone + Ketamine Intravenous PCA / NCA

Use in conjunction with Pain Management Chart and Clinical Practice Guidelines

## Special Precautions

- Oxycodone is an alternative opioid, which may be used for patients who have a contra-indication to morphine and fentanyl or as part of an opioid rotation plan.
- Ketamine should only be prescribed after discussing the patient with an Anaesthetist or the Pain Control Service

## General instructions

- No supplementary opioids unless requested by the Anaesthetist or Pain Control Service
- Line for IV opioids should be exclusive or an anti-reflux valve must be used
- An anti-syphon line must be used
- Record observations according to Clinical Practice Guidelines (at least hourly)
- Assess for pain and potential opioid related side-effects hourly while on NCA/PCA, and for 6 hours after cessation
- Multi-modal / synergistic analgesia – ensure it is prescribed and administered
- Treatment of side-effects:
  - Nausea & vomiting:** Give antiemetics as prescribed
  - Itching:** Antihistamine as prescribed
  - Over sedation:** See Sedation Scale
  - Respiratory depression:** Assess child and if respiratory depression is suspected:
    1. Stop infusion
    2. Give Naloxone as prescribed
    3. Call Pain Control Service
    4. Document actions in the child's records

**The Pain Control Service can be contacted on Bleep 0577 at any time (24 hours)**

## Intravenous

| weight                               | drug and dose   | solution  | concentration   |                |
|--------------------------------------|---|---|---|----------------|
| <b>Up to 50 kg</b>                   | <b>Oxycodone 1 mg/kg</b><br><br>AND<br><b>Ketamine 1 or 2 mg/kg</b> | made up to 50 ml with<br>0.9% sodium chloride or 5% glucose | <b>1 ml = 20 microgram/kg</b><br>(Max 4 hrly dose: 20 mls)<br><br><b>1 ml = 20 or 40 microgram/kg</b> |                |
| SUGGESTED INITIAL PROGRAM            | Loading dose (ml)   | Background inf (ml/hr)                                      | Bolus dose (ml)   | Lockout (mins) |
| <b>PCA</b> standard                  | 2.5 or 5  | 0 or 0.2  | 0.5 or 1  | 5 or 10        |
| <b>NCA</b> standard                  | 2.5 or 5  | 0, 0.2, 0.5 or 1  | 0.5 or 1  | 20 or 30       |
| <b>NCA</b> in ICU areas              | 2.5 or 5  | 0, 0.2, 0.5 or 1  | 0.5 or 1  | 5              |
| <b>NCA</b> neonates & infants < 5 kg | 1 or 2.5  | 0   | 0.5   | 20             |
|                                      |   |   |   |                |
| weight                               | drug and dose   | solution  | concentration   |                |
| <b>Over 50 kg</b>                    | <b>Oxycodone 50 mg</b><br><br>AND<br><b>Ketamine 50 or 100 mg</b>   | made up to 50 ml<br>0.9% sodium chloride or 5% glucose      | <b>1 ml = 1 mg</b><br>(Max 4 hrly dose: 20 mls)<br><br><b>1 ml = 1 or 2 mg</b>                        |                |
| SUGGESTED INITIAL PROGRAM            | Loading dose (ml)   | Background inf (ml/hr)                                      | Bolus dose (ml)   | Lockout (mins) |
| <b>PCA</b> standard                  | 2.5 or 5  | 0 or 0.2  | 1 or 2  | 5 or 10        |
| <b>NCA</b> standard                  | 2.5 or 5  | 0, 0.2, 0.5 or 1  | 1   | 20 or 30       |
| <b>NCA</b> in ICU areas              | 2.5 or 5  | 0, 0.2, 0.5 or 1  | 1   | 5              |