# Intravenous Nurse/ Patient Controlled Analgesia

**Pain Control Service**  
Great Ormond Street Hospital for Children  
NHS Foundation Trust, Great Ormond Street, London, WC1N 3JH

**Oxycodone only**

## PRESCRIPTION CHART

### WARD

**Intravenous Nurse/ Patient Controlled Analgesia**

**IV NCA / PCA**

<table>
<thead>
<tr>
<th>SURNAME</th>
<th>FIRST NAME</th>
<th>HOSPITAL NUMBER</th>
<th>D.O.B.</th>
<th>AGE</th>
<th>WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

### SPECIAL INSTRUCTIONS
- Ensure protocol is printed on the back of this prescription
- Use in conjunction with Trust Clinical Practice Guidelines

### OXCODONE

\[ (\leq 50 \text{ kg} \quad \text{one mg/kg}) \quad (> 50 \text{ kg} \quad 50 \text{ mg}) \]

<table>
<thead>
<tr>
<th>DOSE</th>
<th>DATE</th>
<th>HR</th>
<th>mg</th>
<th>MIN</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

made up to 50 ml with 0.9% sodium chloride or 5% glucose

Tick which solution to be used

- [ ] 0.9% sodium chloride
- [ ] 5% glucose

### MAXIMUM VOLUME

in any 4 hour period

excluding Loading Dose or Extra Bolus

20 ml

### PCA

**DOSE RANGE**

<table>
<thead>
<tr>
<th>ROUTE</th>
<th>IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXTRA BOLUS DOSE</td>
<td></td>
</tr>
</tbody>
</table>

**BACKGROUND**

- 0 – 0.2 ml/hr

**BOLUS**

- 0.5 – 2 ml

**LOCKOUT**

- 5 – 10 min

### NCA

**DOSE RANGE**

<table>
<thead>
<tr>
<th>ROUTE</th>
<th>IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOAD DOSE</td>
<td></td>
</tr>
</tbody>
</table>

**BACKGROUND**

- 0 – 1 ml/hr

**BOLUS**

- 0.5 – 1 ml

**LOCKOUT**

- 15 – 30 min

**LOCKOUT ICU ONLY**

- 5 minutes

### LOADING DOSE or EXTRA BOLUS

**Oxycodone:**

- 10 – 100 microgram/kg (0.5 - 5ml)

**MAX DOSE:**

- 100 microgram/kg to max of 5 mg

### AS REQUIRED DRUGS

**NALOXONE**  
For respiratory depression

<table>
<thead>
<tr>
<th>DOSE</th>
<th>DATE</th>
<th>HR</th>
<th>MIN</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRN</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**ROUTES**

- [ ] IV

**Additional Instructions**

- [ ] 4 micrograms/kg

**Max Freq.**

- [ ] STAT

**Resp rate**

- [ ] <

**Start Date**

- [ ] SIGNATURE

**Bleep**

- [ ] 0577

**SIGN**

**PHARMACY USE**

Protocol overleaf

DTC Approved Dec 2018
Protocol for the use of 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.

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

Special Precautions
- 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 Service can be contacted on Bleep 0577 at any time (24 hours)

<table>
<thead>
<tr>
<th>Intravenous weight</th>
<th>drug and dose</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>up to 50 kg</td>
<td>Oxycodone 1 mg/kg made up to 50 ml with 0.9% sodium chloride or 5% glucose</td>
<td>1 ml = 20 micrograms/kg (Max 4 hrly dose: 20 mls)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SUGGESTED INITIAL PROGRAM</td>
<td>Loading dose (ml)</td>
<td>Background inf (ml/hr)</td>
</tr>
<tr>
<td>PCA standard</td>
<td>2.5 or 5</td>
<td>0 or 0.2</td>
</tr>
<tr>
<td>NCA standard</td>
<td>2.5 or 5</td>
<td>0, 0.2, 0.5 or 1</td>
</tr>
<tr>
<td>NCA in ICU areas</td>
<td>2.5 or 5</td>
<td>0, 0.2, 0.5 or 1</td>
</tr>
<tr>
<td>NCA neonates &amp; infants &lt; 5 kg</td>
<td>1, 2.5 or 5</td>
<td>0</td>
</tr>
</tbody>
</table>

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<tr>
<th>Intravenous weight</th>
<th>drug and dose</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over 50 kg</td>
<td>Oxycodone 50 mg made up to 50 ml with 0.9% sodium chloride or 5% glucose</td>
<td>1 ml = 1 mg (Max 4 hrly dose: 20 mg)</td>
</tr>
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<td></td>
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</tr>
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