

**OXYCODONE**

**PATIENT CONTROLLED ANALGESIA OXYCODONE**

Suggested NCA settings in bold and underlined. Modify according to procedure and patient.

PCA STANDARD INFUSION	Children aged ≥ 7 , Weight >5kg and < 50kg	Children ≥ 50kg
Opioid Dilution	1mg/kg Oxycodone made up to a total of 50 ml in <u>Glucose 5%</u> or Sodium Chloride 0.9%	50mg Oxycodone made up to a total of 50ml in <u>Glucose 5%</u> or Sodium Chloride 0.9%
Concentration	<b>20 microgram/kg/ml</b>	<b>1mg/ml</b>
<b>Loading Dose</b> <i>Only required if no oral or IV or intranasal opioid previously given</i>	50 or 100microgram/kg (2.5 or 5ml)	50 or 100microgram/kg (max 5mg) (2.5 or 5ml)
Background Infusion	Zero, 0.2, <u>0.5</u> , 1ml/hr Zero, 4, <u>10</u> , or 20 microgram/kg/hr	Zero, 0.2, <u>0.5</u> or 1ml/hr (Zero , 0.2mg, <u>0.5mg</u> or 1mg/hr)
Bolus Dose**	10 or <u>20</u> microgram/kg 0.5 or 1ml	1 or 2ml ( 1mg or 2mg)
Lockout time	<u>5</u> or 10 minutes	<u>5</u> or 10 minutes
Maximum 4 hourly Dose	400 microgram/kg (20ml)	20mgs (20ml)

**NURSE CONTROLLED ANALGESIA OXYCODONE**

Suggested NCA settings in bold and underlined. Modify according to procedure and patient.

NCA STANDARD INFUSION	Neonates & Infants <5Kg <i>*Oxycodone is not recommended for routine use in neonates*</i>	Children Weight greater than or equal to 5kg and less than 50kg	Children Weight greater than or equal to 50kg
Opioid Dilution	0.5mg/kg Oxycodone made up to total of 50 ml in <u>Glucose 5%</u> or Sodium chloride 0.9%	1mg/kg Oxycodone made up to total 50 ml in <u>Glucose 5%</u> or Sodium Chloride	50mg oxycodone made up to total 50ml in <u>Glucose 5%</u> or Sodium chloride 0.9%
Concentration	<b>10 microgram/kg/ml</b>	<b>20 microgram/kg/ml</b>	<b>1mg/ml</b>
<b>Loading Dose</b> <i>Only required if no oral or IV or intranasal opioid previously given</i>	20-50microgram/kg(2 to 5ml) Max dose 100microgram/kg	50 or 100microgram/kg (2.5 or 5ml)	50 or 100microgram/kg (max 5mg) (2.5 or 5ml)
Background Infusion	Zero, <u>0.5</u> or 1ml/hr (Zero, <u>5</u> or 10 microgram/kg/hr)	Zero, 0.2, <u>0.5</u> , 1ml/hr ( Zero, 4, <u>10</u> , or 20 microgram/kg/hr)	Zero, <u>0.5</u> or 1ml/hr (Zero , <u>0.5</u> .mg or 1mg/hr)
Bolus Dose**	0.5 to <u>1ml</u> (5 to 10microgram/kg)	0.5 to <u>1ml</u> (10 or 20 microgram/kg )	<u>1</u> or 2ml ( 1 or 2mg)
Lockout time	<u>20</u> or 30 minutes	15 or <u>20</u> minutes	<u>15</u> or 20 minutes
Maximum 4 hour dose	200 microgram/kg (20ml)	400 microgram/kg (20ml)	20mg (20ml)

- \*Babies (birth-12 weeks) undergoing multiple surgeries may require more morphine than their age suggests
- **NB: This guide is intended for use in children who are opioid naïve.** Children who have been on oral or IV opioids including opioid transdermal patch or children with conditions associated with severe pain, (major surgery, sickle cell disease, cancer, and severe burn injury) may have higher opioid requirements.
- Infusion rates higher than this guideline is at the discretion of the Pain service, consultant anaesthesiologist, Consultant Intensivist, Primary consultant.
- \*\* **Loading dose:** Administered over 5mins with Respiratory & SaO2 monitoring only if no other opioid received.
- Antiemetics should also be prescribed.
- Regular paracetamol +/- ibuprofen or diclofenac +/- Clonidine.

# PATIENT & NURSE CONTROLLED ANALGESIA

## OXYCODONE



### General Instructions

- No supplementary opiates unless ordered by the Anaesthetist, palliative care or Pain service
- Line for IV opiates should be exclusive or an anti-reflux valve ( protect-a-line 2) must be used
- Maintain IV access during pain management.
- Treatment of:
  - **Inadequate analgesia** Call Pain service on bleep 8300 or 8528 out of hours
  - **Nausea and Vomiting** Antiemetic's, Ondansetron as prescribed
  - **Itching** Anti-histamine or low dose naloxone
  - **Over Sedation**  $\geq 3$  See sedation scale
  - **Respiratory depression** Stimulate child, give oxygen, stop infusion, call medical team /anaesthetist. Give naloxone 2 microgram/kg IV prn. Repeat every 1-2 minutes (max 5 doses)
  - **Resuscitation:** (minimal respirations, sedation score  $\geq 4$ , cardiorespiratory arrest):  
Naloxone: 10 microgram/kg IV PRN. Repeat every 1-2minutes (maximum 200microgram or 5 doses) **N .B. Naloxone has a relatively short half-life respiratory rate may drop again even though infusion has been stopped.**
  - **Urinary retention** Naloxone low dose > 1month: 1microgram/kg stat (max daily dose 200microgram). If this fails insert urinary catheter

### Sedation AVPU

**A:** awake, arousable, alert

**V:** responds to voice only (drowsy and sleepy. Child may be sedated from opioid)

**P:** responds to pain stimulus only (deeply asleep, arousable only with deep or significant physical or painful stimulus: **Action:** Stop opioid, perform GCS. If opioid related over-sedation, contact anaesthetist on bleep 8528, and/or CNS Acute Pain, bleep 8300. Child may require naloxone.

**U: unresponsive. Action:** Stop Opioid. Stimulate the child, administer oxygen, Call 2222 , perform GCS. Give naloxone to reverse opioid.

### Analgesic Interventions

**0:** No Pain

**1-3:** Mild Pain

**NCA:** Give bolus 10 minutes before activity. **PCA:** encourage bolus 10 minutes before activity

**4-6:** Moderate Pain

**NCA:** Give Bolus. **PCA:** encourage bolus

**7-10:** Severe Pain

**NCA or PCA:** Pain uncontrolled with 3 boli/hr & adjunctive analgesia. **Contact Pain Service**

### Nausea and Vomiting

0: No vomit

1: Nausea

2: Vomit

3: Vomit more than 3 in last hour

### ITCH

0: No Itch

1: slight

2: Moderate

3: Severe

### Sample prescription

Child weight 35kg

PCA Oxycodone 35mgs made up to total of 50mls in Glucose 5%

1ml=700microgram (20microgram/kg/ml)  $35 \times 1000 \div 50 = 700$

PCA: 1ml (20microgram/kg)

Lockout 6 to 12 minutes

Continuous infusion: zero to 1ml/hr. Start at: 0.2ml/hr (4microgram/kg/hr)

Maximum 4 hourly dose: 400microgram/kg=20mls