

## MORPHINE PCA/NCA PROTOCOL

**Rationale:** Morphine is an opioid that can be used as an infusion for the relief of postoperative pain. This protocol is to be used along with EWS observation charts and PCA/NCA opioid guidelines. Please contact the pain team for further advice. **\*Prescription of a Morphine NCA for all neonates or a child <5 Kg must be discussed with a consultant anaesthetist.**

### Protocol for Children < 50 kg

Protocol for Children < 50 kg		Morphine 2 mg /kg in 100mls 0.9% NaCl			
		Concentration: 1mL = 20micrograms / kg; (Maximum 4 hourly dose = 0.2mg/kg)			
Initial programming		Continuous infusion (background) (mL/hour)	Bolus dose (mL) [via button]	Lockout (minutes)	Extra Clinician Bolus (mL)
PCA standard		0, 0.2 or 0.5	0.5 or 1 (10 or 20 microgram/kg)	5 or 10	0.5-5 (10-100 microgram/kg)
NCA standard		0, 0.2, 0.5 or 1	0.5 or 1 (10 or 20 microgram/kg)	20 or 30	0.5-5 (10-100 microgram/kg)
NCA PICU only		0, 0.2, 0.5 or 1	0.5 or 1 (10 or 20 microgram/kg)	5	0.5-5 (10-100 microgram/kg)
*NCA Term Neonates & infants <5kg	<1 month	0	0.2 (4 microgram/kg)	20 or 5 (PICU only)	1.25 (25 microgram/kg)
	1-6 months	0	0.5 (10 microgram/kg)	20 or 5 (PICU only)	2.5 (50 microgram/kg)

### Protocol for Children ≥ 50 kg

Protocol for Children ≥ 50 kg		Morphine 100mg in 100mLs 0.9% NaCl (ready-prepared 100ml bag)			
		Concentration: 1mL = 1 mg; (Maximum 4 hourly dose = 20mLs )			
Initial programming		Continuous infusion (background) (mL/hour)	Bolus dose (mL) [via button]	Lockout (minutes)	Extra Clinician Bolus (mL)
PCA standard		0, 0.2 or 0.5	0.5 or 1 (0.5 or 1mg)	5 or 10	0.5-5 (0.5-5mg)
NCA standard		0, 0.2, 0.5 or 1	0.5 or 1 (0.5 or 1mg)	20 or 30	0.5-5 (0.5-5mg)

NCA PICU only	0, 0.2, 0.5 or 1	0.5 or 1 (0.5 or 1mg)	5	0.5-5 (0.5-5mg)
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## APPENDIX 1

### MORPHINE PCA/NCA PROTOCOL 2015

#### Suggested possible benefits:

Analgesia for acute moderate to severe pain

#### Precautions

***Patients with Renal or Hepatic impairment: NO BACKGROUND infusion***

***Reduce loading dose and bolus to 75% if creatinine clearance 10 - 50 mL/minute/1.73m<sup>2</sup>***

***Reduce loading dose and bolus to 50% if creatinine clearance < 10 ml/minute/1.73m<sup>2</sup>***  
***[recommendations from the Paediatric Renal team and Paediatric Gastroenterology]***

Do not administer supplementary opioids.

Caution with other medications that have a known sedative effect (e.g. midazolam diazepam, chloral hydrate, some antiepileptic drugs)

#### Indications for use

Acute moderate to severe pain

Acute post-operative pain

#### Contraindications

- Allergy to morphine.
- Lack of parental consent.

#### Side effects

Respiratory depression, nausea and vomiting, sedation, and pruritus.

#### Optimum dosing

Dosing as per current BNFC

#### Prescription

The NCA/PCA infusion must be prescribed in the medicine kardex.

#### Equipment

The infusion **must be administered** via the standard PCA/NCA infusion pump

#### General instructions and observations

See observation chart and PCA/NCA guideline