

**Postoperative pain protocol
Infants 0 - 1 years
(first 48 hours after surgery)**

Loading dose morphine IV
100 mcg/kg, 30 minutes before the
anticipated end of the surgical
procedure

Apply COMFORT-B score
and NRS after return OR.
Next every 2 hours.

CF = COMFORT behavior score

Arriving ICU: Start paracetamol IV
Loading dose: 20mg/kg; infusion (see page 5)

No
NRS pain: 4-10
AND CF: 17-30?

Go to
Sedation protocol

Reduce distress by nursing
interventions

Apply COMFORT-B
score and NRS pain

No
NRS pain: 4-10
AND CF: 17-30?

After each
bolus

Yes, after 3rd
bolus

Yes, 1st tot 3rd
bolus

Ventilated?

No

Yes

Consult
physician

Consult physician

Loading dose morphine **100 mcg/kg** AND **START
Morphine IV infusion.**
Start doses Morphine: see doses table page 6.
Increase: loading dose and double infusion doses

Bolus morphine (iv) at minimally 10
minutes interval (**max. 3 x per hour**)
• Age ≤10 days 10 mcg/kg
• Age ≥ 11 days 15 mcg/kg

After doubling
Consult
physician

Apply COMFORT-B score
and NRS pain after **30
min**

Yes
NRS pain: 4-10
AND CF: 17-30?

No

Apply COMFORT-B score
and NRS every 2 hours

No
NRS pain: 0-3 **AND**
CF: 6-16 for 12-24
hours

Yes

Tapering off morphine

Decrease morphine infusion by
50% of infusion rate till stop

Start paracetamol supp. shortly
before or after end morphine
Loading dose: 30-40 mg/kg
Maintenance: 60-90 mg/kg/day

Paracetamol IV doses

- Post conceptual age of 36 to a terme neonate:
 - Loading dose: 20 mg/kg
 - Maintenance dose: 40 mg/kg/day in 4 doses. (Maximum doses: 40 mg/kg/day)
- 1mnd-18jr:
 - Loading dose: 20 mg/kg
 - Maintenance dose: 60 mg/kg/day in 4 doses. (Maximum doses: 4 g/dag) maximale keerdosering: 1 g/dosis.

Paracetamol intravenous solution is administered as a 15-minute intravenous infusion. The minimum interval between each dose must be 4 hours.

| Morphine doses ⁽¹⁾ additional to paracetamol IV postoperative | | |
|--|--|--|
| Bodyweight (kg) | Age ≤ 10 days Infusion rate mcg/kg/hr | Age ≥ 11days – 1 year Infusion rate mcg/kg/hr |
| 1.5 - 2 | 1.5 | 3.1 |
| 2 – 2.5 | 1.8 | 3.5 |
| 2.5 - 3 | 2.0 | 4.0 |
| 3 – 3.5 | 2.2 | 4.3 |
| 3.5 - 4 | 2.3 | 4.7 |
| 4 – 4.5 | 2.5 | 5.0 |
| 4.5 - 5 | 2.7 | 5.3 |
| 5 – 5.5 | 2.8 | 5.6 |
| 5.5 - 6 | | 5.9 |
| 6 – 6.5 | | 6.1 |
| 6.5 - 7 | | 6.4 |
| 7 – 7.5 | | 6.6 |
| 7.5 - 8 | | 6.8 |
| 8 – 8.5 | | 7.1 |
| 8.5 - 9 | | 7.3 |
| 9 – 9.5 | | 7.5 |
| 9.5 - 10 | | 7.7 |
| 10 – 10.5 | | 7.9 |

NB.:

1) Dosing table morphine dosing algorithm:

- 0-10 days: 1.25 mcg/kg^{1.5}/hr
- 11 days – 1 year: 2.5 mcg/kg^{1.5}/hr