

**PHARMACOKINETICS**

- ▶ Naloxone has a short duration of action; repeated doses or infusion may be necessary to reverse effects of opioids with longer duration of action.

- **UNLICENSED USE** Naloxone doses in BNF may differ from those in product literature.

**IMPORTANT SAFETY INFORMATION****SAFE PRACTICE**

Doses used in acute opioid overdose may not be appropriate for the management of opioid-induced respiratory depression and sedation in those receiving palliative care and in chronic opioid use.

- **CAUTIONS** Cardiovascular disease or those receiving cardiotoxic drugs (serious adverse cardiovascular effects reported) · maternal physical dependence on opioids (may precipitate withdrawal in newborn) · pain · physical dependence on opioids (precipitates withdrawal)

**CAUTIONS, FURTHER INFORMATION**

- ▶ Titration of dose In postoperative use, the dose should be titrated for each patient in order to obtain sufficient respiratory response; however, naloxone antagonises analgesia.

**SIDE-EFFECTS****GENERAL SIDE-EFFECTS**

- ▶ **Common or very common** Arrhythmias · dizziness · headache · hypertension · hypotension · nausea · vomiting
- ▶ **Uncommon** Diarrhoea · dry mouth · hyperhidrosis · hyperventilation · tremor
- ▶ **Rare or very rare** Cardiac arrest · erythema multiforme · pulmonary oedema

**SPECIFIC SIDE-EFFECTS**

- ▶ **Uncommon**
- ▶ With parenteral use Inflammation localised · pain · vascular irritation
- ▶ **Rare or very rare**
- ▶ With parenteral use Anxiety · seizure
- ▶ **Frequency not known**
- ▶ With parenteral use Analgesia reversed · asthenia · chills · death · dyspnoea · fever · irritability · nasal complaints · piloerection · yawning

- **PREGNANCY** Use only if potential benefit outweighs risk.

- **BREAST FEEDING** Not orally bioavailable.

**DIRECTIONS FOR ADMINISTRATION**

- ▶ With intravenous use For *continuous intravenous infusion*, dilute to a concentration of up to 200 micrograms/mL with Glucose 5% or Sodium Chloride 0.9%.

**PRESCRIBING AND DISPENSING INFORMATION**

- ▶ With intranasal use The manufacturer has provided a *Healthcare Professional Guidance Document*.
- **PATIENT AND CARER ADVICE** Patients and carers should be given advice on how to administer naloxone nasal spray.
- ▶ With intranasal use Patient training and information cards should be provided.

- **MEDICINAL FORMS** There can be variation in the licensing of different medicines containing the same drug.

**Solution for injection**▶ **Naloxone hydrochloride (Non-proprietary)**

**Naloxone hydrochloride 20 microgram per 1 ml** Naloxone 40micrograms/2ml solution for injection ampoules | 10 ampoule [PoM] £55.00

**Naloxone hydrochloride (as Naloxone hydrochloride dihydrate)**

**400 microgram per 1 ml** Naloxone 400micrograms/1ml solution for injection ampoules | 10 ampoule [PoM] £36.00-£53.70 DT = £40.51

**Naloxone hydrochloride 1 mg per 1 ml** Naloxone 2mg/2ml solution for injection pre-filled syringes | 1 pre-filled disposable injection [PoM] £16.80

**Spray**

- ▶ **Nyxoid** (Napp Pharmaceuticals Ltd)

**Naloxone (as Naloxone hydrochloride dihydrate) 18 mg per 1 ml** Nyxoid 1.8mg/0.1ml nasal spray 0.1ml unit dose | 2 unit dose [PoM] £27.50

## 3.5 Paracetamol toxicity

**ANTIDOTES AND CHELATORS**

### Acetylcysteine

03-Apr-2018

**INDICATIONS AND DOSE****Paracetamol overdose**▶ **BY INTRAVENOUS INFUSION**

- ▶ Neonate: Initially 150 mg/kg over 1 hour, dose to be administered in 3 mL/kg glucose 5%, followed by 50 mg/kg over 4 hours, dose to be administered in 7 mL/kg glucose 5%, then 100 mg/kg over 16 hours, dose to be administered in 14 mL/kg glucose 5%.

- ▶ Child (body-weight up to 20 kg): Initially 150 mg/kg over 1 hour, dose to be administered in 3 mL/kg glucose 5%, followed by 50 mg/kg over 4 hours, dose to be administered in 7 mL/kg glucose 5%, then 100 mg/kg over 16 hours, dose to be administered in 14 mL/kg glucose 5%

- ▶ Child (body-weight 20-39 kg): Initially 150 mg/kg over 1 hour, dose to be administered in 100 mL glucose 5%, followed by 50 mg/kg over 4 hours, dose to be administered in 250 mL glucose 5%, then 100 mg/kg over 16 hours, dose to be administered in 500 mL glucose 5%

- ▶ Child (body-weight 40 kg and above): 150 mg/kg over 1 hour, dose to be administered in 200 mL Glucose Intravenous Infusion 5%, then 50 mg/kg over 4 hours, to be started immediately after completion of first infusion, dose to be administered in 500 mL Glucose Intravenous Infusion 5%, then 100 mg/kg over 16 hours, to be started immediately after completion of second infusion, dose to be administered in 1 litre Glucose Intravenous Infusion 5%

**Meconium ileus**▶ **BY MOUTH**

- ▶ Neonate: 200–400 mg up to 3 times a day if required.

**Treatment of distal intestinal obstructive syndrome**▶ **BY MOUTH**

- ▶ Child 1 month-1 year: 0.4–3 g as a single dose
- ▶ Child 2-6 years: 2–3 g as a single dose
- ▶ Child 7-17 years: 4–6 g as a single dose

**Prevention of distal intestinal obstruction syndrome**▶ **BY MOUTH**

- ▶ Child 1 month-1 year: 100–200 mg 3 times a day
- ▶ Child 2-11 years: 200 mg 3 times a day
- ▶ Child 12-17 years: 200–400 mg 3 times a day

**DOSES AT EXTREMES OF BODY-WEIGHT**

- ▶ To avoid excessive dosage in obese patients, a ceiling weight of 110 kg should be used when calculating the dose for paracetamol overdose.