Paracetamol Intravenous for Adults

Who can administer

May be administered by registered competent doctor or nurse/midwife

Important information

- **Reduce dose in patients weighing less than 50kg** (see 'Dose' overleaf for details)
- Pharmacy **DO NOT endorse any intravenous dose in excess of 1gram**
- Paracetamol for infusion is **10mg/1ml. Fatalities have been reported** where patients have been dosed in ml instead of mg (potential 10-fold overdose). **Always prescribe total dose in mg and ml. e.g 500mg/50ml.**
- A single dose of paracetamol should never exceed 100ml
- **Overdose algorithm** is different for the **INTRAVENOUS** formulation. Advise contact National Poisons Centre
- Check whether paracetamol is also being given by other routes - to avoid inadvertant overdose - eg po Solpadol, Panadeine, Paracetamol
- Consider **IV to PO or PR switch** as soon as possible
- The **maximum daily dose is 3g** in patients with risk factors for hepatotoxicity
- see under 'Dose' re: renal impairment

Available preparations

Paracetamol 1g per 100ml bag (Macopharm) or Ecoflac (Braun)

Paracetamol 500mg per 50ml infusion bottle (Fresenius Kabi)

Reconstitution

Already in solution

Infusion fluids

Not required - product ready for infusion

Methods of intravenous administration

Intermittent intravenous infusion

- Administer over 15 minutes

If using glass bottles : Glass bottle precautions as follows: (ref 1)

- Precautions need to be taken during administration to **prevent possible air embolism** - particularly in central line administration.
- Bottles **must be vented** in one of two ways - directly by means of a filter needle into the bottle which goes through the rubber stopper and opens into the air, or direct air vent on the air inlet of the administration set, located between the drip chamber and piercing pin, it is covered with a bacterial retentive filter to reduce the chance of contamination

Dose in adults

Patient weight	Dose	Frequency	Maximum daily dose	Comment
Greater than 50kg	1g	Four to six hourly	4g in 24 hours	**Important:** The **maximum daily dose is 3g** in patients with risk factors for hepatotoxicity
Greater than 33kg, up to or equal to 50kg	15mg per kg	Four to six hourly	60mg/kg/24 hours max 3g (24 hours)	Calculate the dose in mg. **NOTE**: **some drug will need to be discarded** eg. required dose is 650mg (65ml)- remove and discard 350mg (35ml) from 1000mg bag
Less than or equal to 33kg	15mg per kg	Four to six hourly	60mg/kg/24 hours max 2g (24 hours)	Use the **500mg in 50ml** preparation Calculate the dose in mg **Note: some drug will need to be discarded** eg. required dose is 400mg (40ml), remove and discard 100mg (10ml) from 500mg bottle

Important: The **maximum daily dose is 3g** in patients with risk factors for hepatotoxicity

Renal impairment

- Use with caution where eGFR is less than or equal to 30ml/min/1.73m^2
- **Minimum interval** between doses is **six hours** for patients with eGFR less than or equal to 30ml/min/1.73m^2

Hepatic impairment

- The manufacturer's contraindicate its use in patients with severe hepatic impairment
- Maximum **daily** dose is 3g

Further information

- Numerous over-the-counter and prescription products contain paracetamol as an ingredient e.g. Panadol, Paramol, Solpadeine, Solpadol, Lemsip etc. Avoid prescribing more than one paracetamol-containing product at a time as local experience suggests that maximum doses may be exceeded.

Storage

- Store below 25^{0}C
- Keep the vial in the outer carton in order to protect from light

References

SPC (B Braun) September 2022

(1) Glass bottle warning