

## MEG Demo (Staff App) - MEG Demo - MEG Staff app: Acetylcysteine

### ACETYLCYSTEINE

#### Indications for Use

Antioxidant in acute liver failure and treatment of paracetamol overdose.

#### Medication safety issues

Anaphylactoid reactions have been reported, usually between 15-60 minutes after the start of the infusion. Usually, once an adverse reaction is under control (by stopping the infusion and/or using antihistamines/corticosteroids), the infusion can be restarted at the lowest infusion rate.

#### Dose

Acute liver failure : Initially 4-8 mg/kg/h by IV infusion.

Paracetamol overdose : Initial loading dose of 150mg/kg administered over 1 hour (3 ml/kg in Glucose 5%), then 50mg/kg over 4 hours (7 ml/kg in Glucose 5%) and then 100mg/kg over 16 hours (14 ml/kg in Glucose 5%).

#### Presentation

Acetylcysteine injection (Parvolex) containing 200mg/ml in 10ml ampoules.

#### Preparation (for continuous IV infusion)

Use Glucose 5% preferably. Sodium Chloride 0.9% may also be used.

Acute liver failure : Add 4ml of 200mg/ml injection (i.e. 800mg/4ml) to 46ml of Glucose 5%, this gives a solution with a concentration of 800mg in 50ml (16mg per ml).

Paracetamol overdose :

Dose 1: Prepare a 50 mg/mL solution. Dilute each 10mL ampoule of N-acetylcysteine (200 mg/mL) with 30 mL glucose 5% or sodium chloride 0.9% to give a total volume of 40 mL.

Dose 2: Prepare a 6.25 mg/mL solution. Dilute each 10 mL ampoule of N-acetylcysteine (200 mg/mL) with 310 mL glucose 5% or sodium chloride 0.9% to give a total volume of 320 mL.

Dose 3: Prepare a 6.25 mg/mL solution. Dilute each 10 mL ampoule of N-acetylcysteine (200 mg/mL) with 310 mL glucose 5% or sodium chloride 0.9% to give a total volume of 320 mL.

#### Administration

Administration ideally through **central venous catheter** .

Flow rate (ml/hour) = Dose (mg/kg/hour) x Weight (kg) / Concentration of solution (mg/ml).

#### Adverse Effects

Tachycardia, hypotension, rash, bronchospasm, hypokalaemia.

#### Note

- Monitor potassium levels.
- Each 10ml of N-acetylcysteine for infusion contains 322.6mg sodium.
- A change of colour of solution to light purple has sometimes been noted and is not thought to indicate significant impairment of efficacy.

*Reviewed: August 2020.*