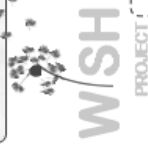


## **Is this woman eligible for magnesium sulphate for neuroprotection of her fetus?**

- < 30 weeks' gestation**
- Birth planned or definitely expected within the next 24 hours**
- Regardless of**
  - **Plurality**
  - **Parity**
  - **Reason for preterm birth**
  - **Anticipated mode of birth**
  - **Whether antenatal corticosteroids have been given or not**

**Please see the poster overleaf “*Antenatal magnesium sulphate (MgSO<sub>4</sub>) prior to preterm birth for neuroprotection of the fetus, infant and child*” for a quick reference on magnesium sulphate dosage, timing, monitoring and potential interactions.**

## Antenatal magnesium sulphate (MgSO<sub>4</sub>) prior to preterm birth for neuroprotection of the fetus, infant and child



When to give MgSO<sub>4</sub>?

- Gestational age < 30 weeks
- Birth planned or definitely expected within 24 hours

Give MgSO<sub>4</sub> regardless of:

- plurality
- parity
- reason at risk of preterm birth
- whether antenatal corticosteroids have been given or not
- anticipated mode of birth

### What/When to administer?

MgSO<sub>4</sub> intravenously using a dedicated intravenous line:

- Commence MgSO<sub>4</sub> as close to four hours before birth as possible.
- Loading: 4g dose (slowly over 20-30 minutes).
- Maintenance: 1g/hour for up to 24 hours or until birth, whichever comes first.

### When urgent delivery/birth needed:

- Do not delay delivery to administer MgSO<sub>4</sub>.

### What if birth does not occur within 24 hours?

- Once 6 hours has transpired following the cessation of the 24 hour maintenance dose, a further loading and maintenance infusion may be considered.

### How to monitor women?

- Monitoring is essential for both loading and maintenance doses.
- Monitor pulse, blood pressure, respiratory rate and patellar reflexes: (a) before loading infusion (b) 10 mins after starting infusion (c) after loading infusion is complete (d) every 4 hours during the maintenance infusion.
- Resuscitation and ventilator support should be available during and after administration of both magnesium sulphate and calcium gluconate.

### When to stop MgSO<sub>4</sub> administration?

- Urine output < 100mL in 4 hours
- Absent patellar reflexes
- Respiratory depression (< 12 breaths/min)
- Hypotension (diastolic BP < 15 mm Hg below baseline).

→ If Magnesium toxicity occurs: Stop MgSO<sub>4</sub> infusion and administer antidote of calcium gluconate (10mL of 10% solution slowly intravenously over approx. 10 minutes).

**Potential interactions** between MgSO<sub>4</sub> and nifedipine may result in hypotension and neuromuscular blockade effects. If such interactions are evident, cease nifedipine and MgSO<sub>4</sub> infusion and seek medical review.