COMPLICATIONS OF PREGNANCY

PRETERM BIRTH

Key words: neuroprotection, magnesium sulphate, magnesium sulphate neuro protection, fetal neuro protection, magnesium sulphate infusion, preterm

MAGNESIUM SULPHATE INFUSION FOR NEURO PROTECTION OF THE FETUS: QUICK REFERENCE GUIDE

This Quick reference guide must be used in conjunction with its respective Clinical Guidelines, Section ANTENATAL MAGNESIUM SULPHATE PRIOR TO PRETERM BIRTH FOR NEURO PROTECTION OF THE FETUS POST BIRTH.

Prior to commencement of MgSO4:
- Provide information to the woman about the use of MgSO4
- Obtain verbal consent
- Two registered midwives must
  1. Check the correct medication, dose and infusion rate
  2. Set up the infusion line and pump
Before commencement check and document that
- the knee or tendon reflex is present
- the RR is > 12 respirations per minute
Commence the infusion.

MgSO4 Loading Dose Regimen
- Infuse 4 grams of MgSO4 over 20 minutes.
This equates to an infusion rate of 150mL per hour for 20 minutes/ the woman receives only 50mL of the infusion. A solution of 8 grams of MgSO4 in a 100mL bag is used at KEMH. Always use an infusion pump.

MgSO4 Maintenance Regimen
- The dose for maintenance infusion is 1 gram of MgSO4 per hour for 4 hours.
This equates to an infusion rate of 12.5 mL per hour where the solution of 8 grams of MgSO4 in 100mL bag is used at KEMH. Always use an infusion pump.
Maternal Observations

- Monitor Patella reflexes, RR and BP every **15 minutes** for the first **two** hours, then hourly after.
- Monitor Oxygen saturations continuously with a pulse oximeter and record hourly.
- Measure and record urine hourly- ensure output is over > 25mL/ hr.

WHEN TO CEASE INFUSION/ NOTIFY MEDICAL OFFICER-

- If patella reflexes are absent.
- If respirations are less than 12 per minute.
- If urine output is less than 25mL/ hr.
- If a major side effect is witnessed, such as respiratory depression.

Additional Information-

1. MgSO4 is only given to women who are at imminent risk of delivery of a preterm infant of less than 30 weeks gestation and birth is planned or definitely expected within 24 hours. Ideally it should be commenced **4 hours prior** to delivery.
2. Urgent delivery for fetal or maternal indications should not be delayed in order to achieve MgSO4 administration.
3. Calcium gluconate 1g in 10 mL must be available at all times for treatment of MgSO4 toxicity. Resuscitation equipment should be readily available.
4. Apply continuous fetal monitoring.

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REFERENCES / STANDARDS

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RESPONSIBILITY

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