

**Health Innovation Oxford & Thames Valley Regional Maternity Guideline for Magnesium Sulphate
use: Loading dose for severe pre-eclampsia/ eclampsia and Neuroprotective dose for severe
preterm birth**

Version 4 (Updated Nov 2024)

Section 1: Indications for Magnesium Sulphate

1. Neuroprotection during/ before preterm birth¹
2. Severe pre-eclampsia (PET) ² and eclampsia

Section 2: Preparation and administration

Bolus: Take one 20 ml syringe and fill with the contents of two 10ml ampoules of 20% Magnesium Sulphate. This contains 4g (16mmol) of Magnesium Sulphate.

Give the 4g (16mmol) Magnesium Sulphate by slow IV bolus, over 5-10 minutes.

Infusion: only recommended for severe pre-eclampsia (PET) and Eclampsia²

Section 3: Timing and Repeat doses of neuroprotective dosage

From 22+0³ to 31+6 weeks, Magnesium Sulphate can be given just prior to birth and is effective within minutes.

If birth is imminent >12 hrs after a bolus has been given, the loading dose can be repeated.

The 4g bolus is sufficient because of lack of evidence for better outcomes with infusions, in conjunction with manpower /risk issues with prolonged infusions

Footnotes

1 See maternity network Threatened Preterm Labour Guideline, Prelabour Preterm SROM Guideline

2 See local Trust PET guideline

3 Note new lower gestation. Mg not advised <24+0 if parents do not want active resuscitation