

A department of Maine Medical Center

Magnesium Sulfate for Neuroprotection

Numerous large clinical studies have evaluated the evidence regarding magnesium sulfate, neuroprotection, and preterm births. The available evidence suggests that magnesium sulfate given before anticipated early preterm birth appears to decrease the risk and severity of cerebral palsy in surviving infants.

Physicians may consider using magnesium sulfate for fetal neuroprotection in patients less than 32 weeks' gestation who are at risk for delivery within 24 hours.

The following regimen should be selected for neuroprotection:

Magnesium sulfate 4 gram bolus, followed by 1 gram/hour for up to 24 hours

If the physician is placing a patient on magnesium sulfate for tocolysis, then the standard dosing for tocolysis (i.e., 6 gram bolus, then 2 gram/hour) should be selected.

References:

ACOG Committee Opinion No. 455. Magnesium sulfate before anticipated preterm birth for neuroprotection. Obstet Gynecol 2010;115: 669-71, March 2010 (reaffirmed 2020).