Patient Safety Checklist

MAGNESIUM SULFATE BEFORE ANTICIPATED PRETERM BIRTH FOR NEUROPROTECTION

Date _______________ Patient ___________________________ Date of birth ___________ MR # __________
Physician or certified nurse–midwife ______________________ Last menstrual period ______________
Gravidity/Parity ________________________________
Estimated date of delivery ___________ Best estimated gestational age _____________

Criteria (1):
- Gestational age less than or equal to 31 6/7 weeks
  and
- Singleton or multiple pregnancy at risk for delivery within the next 30 minutes to 24 hours
  and either
  - Active preterm labor with cervix 4–8 cm dilated or preterm premature rupture of membranes if rupture occurred later than 22 weeks
    or
  - Indicated preterm birth within the next 24 hours. (If the planned delivery is for severe preeclampsia or hemolysis, elevated liver enzymes, and low platelet count [HELLP], the full antiseizure magnesium sulfate regimen should be administered as minimal therapy.)

Exclusions:
- Unwillingness to intervene for the benefit of the fetus
- Maternal contraindications to receiving magnesium sulfate

Counseling:
- Temporary side effects of magnesium sulfate administration
- No documented benefit in neonatal survival
- Risk of moderate to severe cerebral palsy decreased by approximately 50%
- In all other ways, routine care will be provided (steroids, tocolysis, antibiotics, or induction for preterm premature rupture of membranes if indicated)

Specific considerations with therapy:
- Consider the effect of administering magnesium sulfate if any other tocolytic agent, such as a calcium channel blocker, is being given
- Adjust the dose of magnesium sulfate appropriately if administered to women with altered renal function

Suggested treatment regimens from large trials (1):

Crowther Regimen (2):
- Bolus 4 g magnesium sulfate intravenously (IV) over 20 minutes
- Follow bolus with magnesium sulfate 1 g/hr IV until birth or up to 24 hours

Rouse Regimen (3):
- Bolus 6 g magnesium sulfate IV over 20–30 minutes
- Follow bolus with magnesium sulfate 2 g/hr IV for 12 hours

(continued)
Rouse Regimen (3) (continued):
    - Discontinue maintenance dose if delivery has not occurred within 12 hours and is no longer considered imminent. Resume the maintenance dose if the risk of imminent delivery recurs within 6 hours.
    - Repeat loading dose and subsequent maintenance therapy as listed previously if risk of imminent delivery recurs after 6 hours.

Marret Regimen (4):
    - Bolus 4 g magnesium sulfate over 30 minutes
    - No maintenance dose administered

Modification of any of the aforementioned regimens:
    - Detailed description of the modified regimen entered in patient’s chart

Resource

References

Standardization of health care processes and reduced variation has been shown to improve outcomes and quality of care. The American College of Obstetricians and Gynecologists has developed a series of Patient Safety Checklists to help facilitate the standardization process. This checklist reflects emerging clinical, scientific and patient safety advances as of the date issued and is subject to change. The information should not be construed as dictating an exclusive course of treatment or procedure to be followed. Although the components of a particular checklist may be adapted to local resources, standardization of checklists within an institution is strongly encouraged.

How to Use This Checklist
The Patient Safety Checklist on Magnesium Sulfate Before Anticipated Preterm Birth for Neuroprotection should be completed by the health care provider during the patient’s admission.