

## Single loading dose versus standard 24-hour magnesium sulfate in women with severe preeclampsia and eclampsia: A systematic review and meta-analysis

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**Objectives:** The primary goal of this study is to determine if a single loading dose of Magnesium Sulfate (MgSO<sub>4</sub>) is comparable to standard 24-hour therapy in preventing seizures with severe preeclampsia and eclampsia.

**Study Design:** Meta-analysis and systematic review of six randomized controlled trials.

**Patients/Subject Selection:** Patients diagnosed with severe preeclampsia and eclampsia.

**Intervention:** Giving of single loading dose only (study group) versus 24-hour MgSO<sub>4</sub> therapy (control) in patients with severe preeclampsia and eclampsia.

**Outcome Measures:** (1) Anti-convulsant effects, (2) Maternal: Loss of deep tendon reflex and oliguria, incidences of caesarean section, hemolysis, elevated liver enzymes, low platelet (HELLP) syndrome, post-partum hemorrhage and intensive care unit admissions, and (3) Neonatal complications: Incidences of Neonatal Intensive Care Unit (NICU) admission, APGAR score at 5 minutes and death.

**Results:** Occurrence of seizures was similar in both groups. The risk difference of -0.00 (95% Confidence Interval (CI): -0.04 to 0.03; p=0.84) showed no significant difference and the combined studies were found to be homogenous with an I<sup>2</sup> of 0.0.

**Conclusion:** A single loading dose of MgSO<sub>4</sub> is comparable in preventing seizures of preeclamptic and eclamptic patients with similar maternal and neonatal complications except for a lesser occurrence of decreased patellar reflex in the study group (p≤000001).

### Biography

Dirdrah Aina Crisostomo Salvador has completed her Residency training in Obstetrics and Gynecology in the Philippines.

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