

Study reveals level of magnesium sulfate to prevent cerebral palsy in preterm infants

June 7 2017

A new study suggests that to optimize neuroprotection and prevent cerebral palsy in extremely preterm infants, women should receive magnesium sulfate to obtain a blood level between 3.7 and 4.4 mg/dL at the time of delivery. The study included 636 women who received magnesium sulfate and 1269 who received placebo.

The findings are important because magnesium sulfate is indicated for neuroprotection of preterm fetuses; however, the optimal dosing schedule to prevent [cerebral palsy](#) is not known.

"Women have traditionally received a standard dose of magnesium sulfate to prevent cerebral palsy in the extremely preterm fetus, but this study is the first to use pharmacokinetic modeling to suggest a therapeutic target maternal serum level we should aim for," said Dr. Kathleen Brookfield, lead author of the *Journal of Clinical Pharmacology* study. "The dose of [magnesium sulfate](#) can now be tailored depending on [maternal factors](#) and the clinical situation to achieve this target."

More information: Kathleen F. Brookfield et al, Optimization of Maternal Magnesium Sulfate Administration for Fetal Neuroprotection: Application of a Prospectively Constructed Pharmacokinetic Model to the BEAM Cohort, *The Journal of Clinical Pharmacology* (2017). [DOI: 10.1002/jcph.941](#)

Provided by Wiley

Citation: Study reveals level of magnesium sulfate to prevent cerebral palsy in preterm infants (2017, June 7) retrieved 6 May 2024 from <https://medicalxpress.com/news/2017-06-reveals-magnesium-sulfate-cerebral-palsy.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.