

# Maternal vaccine can prevent group B strep in young infants

July 21 2023, by Elana Gotkine

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A hexavalent capsular polysaccharide (CPS)-cross-reactive material 197

glycoconjugate vaccine (GBS6) can prevent invasive group B streptococcus in young infants, according to a study published in the July 20 issue of the *New England Journal of Medicine*.

Shabir A. Madhi, M.D., Ph.D., from the South African Medical Research Council Vaccines and Infectious Diseases Analytics Research Unit in Johannesburg, and colleagues conducted an ongoing phase 2, placebo-controlled trial involving [pregnant women](#) to assess the safety and immunogenicity of a single dose of various GBS6 formulations and analyzed maternally transferred anti-CPS antibodies.

In a parallel seroepidemiologic study, serotype-specific anti-CPS immunoglobulin G (IgG) concentrations that were associated with a reduced risk for invasive [disease](#) among newborns were assessed to define putative protective thresholds.

The researchers found that among infants in the seroepidemiologic study, naturally acquired anti-CPS IgG concentrations were associated with a [reduced risk](#) for disease. IgG thresholds of 0.184 to 0.827 µg/mL were determined to be associated with 75 to 95 percent reductions in the risk for disease. There were no GBS6-associated safety signals among mothers or infants.

Across the trial groups, the incidence rates of adverse events and serious adverse events were similar for mothers and infants; the groups that received GBS6 containing aluminum phosphate had more local reactions. GBS6 induced maternal antibody responses to all serotypes; depending on the dose, maternal-to-infant antibody ratios were approximately 0.4 to 1.3.

"The potential protective concentrations that are reported herein are based on a single seroepidemiologic study," the authors write. "Future studies are needed to better define these immunologic relationships."

**More information:** Shabir A. Madhi et al, Potential for Maternally Administered Vaccine for Infant Group B Streptococcus, *New England Journal of Medicine* (2023). [DOI: 10.1056/NEJMoa2116045](https://doi.org/10.1056/NEJMoa2116045)

Carol J. Baker, Group B Streptococcal Vaccine—Sisyphus Reconciled, *New England Journal of Medicine* (2023). [DOI: 10.1056/NEJMe2306234](https://doi.org/10.1056/NEJMe2306234)

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Citation: Maternal vaccine can prevent group B strep in young infants (2023, July 21) retrieved 23 July 2024 from <https://medicalxpress.com/news/2023-07-maternal-vaccine-group-strep-young.html>

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