FDA-Approved RSV Maternal Vaccine Protects Infants, Reduces Economic Burden

New study shows hospitalizations would fall by more than 50% and emergency department visits by over 30%.

October 13, 2023 By Infectious Diseases Society of America

At a Glance

- Maternal vaccination against respiratory syncytial virus could reduce the clinical burden of the disease for infants from birth up to one year of age, according to a new study.
- Researchers estimate vaccination for all who are eligible could save nearly $800 million in direct medical and indirect costs.
- The vaccine is the first of its kind to produce antibodies within pregnant people to help prevent RSV infection in an infant.
- The U.S. Centers for Disease Control and Prevention recently issued guidance for pregnant people during weeks 32 through 36 of pregnancy to receive the vaccine to help prevent RSV in their infants.

A newly approved vaccine can substantially reduce the clinical and economic burden of lower respiratory tract disease (LRTD) caused byrespiratory syncytial virus (RSV), according to new findings presented at IDWeek 2023.

The bivalent stabilized prefusion F subunit vaccine (RSVpreF) [brand name Abrysvo], administered during pregnancy, is the first of its kind to produce antibodies to prevent LRTD caused by RSV.

Hospitalizations would fall by 50.8%, emergency department encounters by 31.8% and outpatient clinic visits by 32.2% compared to annual projections among the 3.7 million U.S. infants from birth to one year of age, according to the study. A corresponding decrease of $691.8 million in direct medical costs and $110 million in indirect costs due to vaccine uptake would follow.

The data are based on a cohort model that depicts clinical outcomes and economic costs of RSV from birth to one year of age, lifetime consequences of premature death and impact of maternal vaccination with RSVpreF among infants. The economic costs are based on cases and corresponding unit costs of direct care, such as hospitalizations, and indirect care, such as time spent caregiving.

“The potential benefits of this vaccine underscore how important immunization is for helping prevent serious disease in infants and offering savings to our health system,” said Amy W. Law, PharmD, director of global value and evidence at Pfizer Inc. and presenting author. “These findings provide evidence for expecting families, facing an exciting and changing time in their lives, with an option to offer protection for their child against severe respiratory illness.”

The findings add to an overwhelming body of evidence that prioritizing maternal immunization against infectious diseases has a major effect on the health and well-being of newborns and their families, according to study authors. Approximately 500,000-600,000 U.S. infants experience LRTD caused by RSV each year, and it is a leading cause of infant hospitalization.

Researchers say that pregnant people should speak with their obstetrician about the vaccine and that health care providers should encourage use of the vaccine for their patients. The CDC’s Advisory Committee on Immunization Practices recently recommended seasonal administration of one dose of RSV vaccine for pregnant people during weeks 32 through 36 of pregnancy. The vaccine was approved by the U.S. Food and Drug Administration in August 2023, following a phase 3 trial evaluating the safety and efficacy of the vaccine against LRTD in infants.

In addition to Dr. Law, study co-authors include: Ahuva Hanau, BS; Kimberly M. Shea, PhD, MPH; Derek Weycker, PhD; Mark Atwood, MS; Erin Quinn, BS; Emily Kutrieb, BA; Jessica E. Atwell, PhD, MPH; Alejandro D. Cane, MD, PhD; Bradford J. Gessner, MD, MPH; and Sarah J. Pugh, PhD, MPH.

This news release was published by IDSA on October 11, 2023.

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