Scientific Bulletin of the Academy of Medical Sciences

Number 185/ 2 January 2026

Evaluation of RSV Protection Durability: Comparative Studies on Vaccination and Passive Immunoprophylaxis

Two recent studies analyzed the temporal evolution of the efficacy of prophylactic interventions against Respiratory Syncytial Virus (RSV), targeting two vulnerable population categories: older adults and infants.

1. Waning Post-Vaccination Immunity in Older Adults A study conducted on a cohort of United States veterans demonstrated that the protection offered by the RSV vaccine is not constant. Data indicate a progressive decline in vaccine effectiveness, both in preventing the infection itself and in reducing associated healthcare utilization, over an 18-month monitoring period.

2. Efficacy Dynamics of Nirsevimab in the Pediatric Population In parallel, research on hospitalized European children (under two years of age) evaluated the impact of nirsevimab, a long-acting monoclonal antibody used preventively. Although the treatment demonstrated robust initial efficacy, the analysis revealed a decrease in protection over the course of seven months post-administration.

Although current interventions against RSV (adult vaccination and passive immunization of infants with monoclonal antibodies) offer significant initial protection, both studies highlight a **limitation in the durability of the therapeutic effect over time**.

This waning immunity (after 18 months in adults and 7 months in children) suggests the need to optimize prevention strategies, possibly through strategic seasonal administration or the introduction of booster doses to maintain protective titers in the long term.

Translated and adapted from Mary Van Beusekom, MS, December 18, 2025.