VACCIREVIEW

RSV Prefusion F Vaccine for Prevention of Hospitalization in Older Adults

Bibliography

Lassen MCH, Johansen ND, Christensen SH, et al. RSV Prefusion F Vaccine for Prevention of Hospitalization in Older Adults. N Engl J Med. 2026;394(2):138-151. doi:10.1056/NEJMoa2509810.RSV-pre-f-in-adult.pdf

Summary

DAN-RSV was a large, pragmatic, randomized phase 4 trial in Denmark in which 131,276 adults ≥60 years were allocated to a single dose of RSVpreF or no vaccine, with outcomes ascertained exclusively via high-quality national registries. The primary endpoint—hospitalization for RSV-related respiratory disease—was reduced from 0.66 to 0.11 events per 1000 person-years, corresponding to 83.3% vaccine effectiveness (95% CI, 42.9–96.9), and similar protection was seen for RSV-related lower respiratory tract hospitalization (≈92% effectiveness). A smaller but statistically significant 15.2% reduction in all-cause respiratory hospitalization suggests broader clinical impact but also highlights that RSV is only one contributor to winter respiratory burden. Strengths include scale, representativeness, and consistency between intention-to-treat and as-treated analyses; key limitations are under-testing for RSV, fewer events than planned, open-label design, and restriction to a single high-income setting. Safety over six weeks was reassuring, with similar serious adverse event rates and no Guillain–Barré Cases observed.

Critical Opinion

This trial represents a mature next step in RSV vaccine evaluation, moving from classical efficacy endpoints to genuinely **policy-relevant** outcomes such as hospitalization and cardiorespiratory events. The use of a nationwide, registry-based randomized design is particularly compelling for adult vaccines, where implementation questions and absolute risk reductions matter more than rarefied trial conditions. For decision-makers, an 80%+ reduction in RSV-related hospitalizations, on top of a modest but significant reduction in all-cause respiratory admissions, is likely sufficient to justify well-targeted RSVpreF programs in older adults, especially in systems already straining under winter bed pressure. At the same time, the modest effect on all-cause endpoints and the under-testing for RSV argue against over-extrapolation to younger age groups or lower-risk adults. Future work should refine which subgroups (e.g., ≥75 years, cardiopulmonary disease, frailty) derive the greatest absolute benefit and explore durability of protection and safety over multiple seasons.

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