

# The Medical Journal of Australia • MJA

# MEDIA RELEASE

## **NATIONAL DATA ON RESPIRATORY SYNCYTIAL VIRUS RELEASED**

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AUSTRALIAN children under 5 years of age have the highest rates of hospitalisation due to respiratory syncytial virus (RSV) disease; however adults aged 65 years and older, and Aboriginal and Torres Strait Islander adults may also be at risk, according to research published online today by the *Medical Journal of Australia*.

Led by Gemma Saravanos, a PhD candidate at the National Centre for Research Immunisation and Surveillance (NCIRS) and The University of Sydney, the researchers set out to estimate rates of RSV-associated hospitalisation across the age spectrum.

RSV-associated acute lower respiratory infection is a leading cause of hospitalisation in young children, particularly in those less than 6 months old, and RSV-associated disease in older adults is increasingly recognised. Estimating national rates of the disease is challenging as RSV infections are not notifiable, and testing practices differ among locations and for different population groups. Population-level data is needed to inform future research and the design of public health interventions for disease prevention. This research reviewed data from the National Hospital Morbidity Database for all RSV-associated hospitalisations in Australia from 2006 to 2015 and is the first Australian study to examine rates across the age spectrum.

“During 2006–2015, there were 63 814 hospitalisations with an RSV-specific principal diagnostic code; 60 551 (94.9%) were of children under 5 years of age,” the authors wrote. “The hospitalisation rate for children under 5 years was 418 per 100 000 population; for children younger than 6 months of age it was 2224 per 100 000 population; the highest rate was for infants aged 0–2 months (2778 per 100 000 population).”

Older Australian adults and Indigenous adults appear to be at higher risk of RSV-associated hospitalisation compared to other groups. “RSV-coded hospitalisation rates were higher for adults aged 65 or more than for people aged 5–64 years (incidence rate ratio [IRR], 6.6), and was also higher for Indigenous Australians than other Australians (IRR, 3.3). A total of 138 in-hospital deaths were recorded, including 82 of adults aged 65 years or more (59%).”

A number of vaccine candidates targeting disease prevention in different age groups are undergoing clinical trials, say the authors.

“Children under 6 months of age are considered a priority group for RSV disease prevention, and one proposed strategy is to provide protection through vaccination of mothers in pregnancy,” said senior author Associate Professor Nicholas Wood, a paediatrician and clinical research fellow.

“A recombinant RSV fusion protein nanoparticle vaccine has been found to be safe and immunogenic, protecting healthy women of child-bearing age against RSV infection. It has now completed phase 3 clinical trials in pregnant women,” said the authors. “Such a vaccine, if efficacious, could substantially reduce the number of RSV-associated hospitalisations in Australia.”

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