

The impact of varicella vaccination three years into a publicly funded program.

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Abstract

In Australia, varicella vaccine (VV) has been available since 2000, recommended (at 18 months of age) in 2003 and funded under the National Immunisation Program (NIP) from 2005.

National Hospital Morbidity data (AIHW) and population data (1998-2005) were used to calculate age-specific varicella hospitalisation rates over 4 time periods: prior to VV availability, from availability to recommendation, from recommendation to NIP funding, and from NIP funding to June 2008.

A 68.8% decline in varicella hospitalisations in the 1.5-4 year age group was observed from 56.7 per 100,000 (95% CI 52.7-60.8) prior to vaccine availability to 17.7 per 100,000 (95% CI 16.0-19.5) after NIP funding. A significant decline in <18 month olds was observed from 77.9 per 100,000 (95% CI 70.8-85.6) to 39.6 per 100,000 (95% CI 35.8-43.6) over this time.

Newly available data shows a decline in varicella hospitalisations both in those eligible for VV and suggests a herd immunity effect in the <18 month age group. These data demonstrate a significant impact early in the funded varicella vaccine program in Australia.