

An RSV vaccine has been approved for people over 60 in Australia, but what about young children?

January 17 2024, by Allen Cheng



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The Therapeutic Goods Administration (TGA) [has approved](#) a vaccine against respiratory syncytial virus (RSV) in Australia for the first time.

The shot, called Arexvy and manufactured by GSK, will be available by prescription to adults over 60.

RSV is a contagious respiratory virus which causes an illness similar to influenza, most notably in babies and [older adults](#).

So while it will be good to have an RSV [vaccine](#) available for [older people](#), where is protection up to for the [youngest children](#)?

A bit about RSV

RSV was [discovered](#) in chimpanzees with respiratory illness in 1956, and was soon found to be a common cause of illness in humans.

There are two key groups of people we would like to protect from RSV: babies (up to about one year old) and people older than 60.

Babies tend to [fill up hospitals](#) during the RSV season in late spring and winter in large numbers, but severe infection requiring admission to intensive care is less common.

In babies and [younger children](#), RSV generally causes a wheezing asthma-like illness (bronchiolitis), but can also cause pneumonia and croup.

Although there are far fewer hospital admissions among older people, they can develop [severe disease and die](#) from an infection.

RSV vaccines for older people

For older adults, there are actually several RSV vaccines in the pipeline. The recent Australian [TGA approval](#) of Arexvy is likely to be the first of several, with other vaccines from Pfizer and Moderna currently in

development.

The GSK and Pfizer RSV vaccines are similar. They both contain a small component of the virus, called the [pre-fusion protein](#), that the immune system can recognize.

Both vaccines have [been shown](#) to reduce illness from RSV by more than 80% in the first season after vaccination.

In older adults, side effects following Arexvy [appear to be similar](#) to other vaccines, with a sore arm and generalized aches and fatigue frequently reported.

Unlike influenza vaccines which are given each year, it is anticipated the RSV vaccine would be a [one-off dose](#), at least at this stage.

Protecting young children from RSV

Younger babies don't [tend to respond](#) well to some vaccines due to their immature immune system. To prevent other diseases, this can be overcome by giving multiple vaccine doses over time. But the highest risk group for RSV are those in the first few months of life.

To protect this youngest age group from the virus, there are two potential strategies available instead of vaccinating the child directly.

The first is to give a vaccine to the mother and rely on the protective antibodies passing to the infant through the placenta. This is similar to how we [protect](#) babies by vaccinating [pregnant women](#) against influenza and pertussis (whooping cough).

The second is to give antibodies directly to the baby as an injection. With both these strategies, the protection provided is only temporary as

antibodies wane over time, but this is sufficient to protect infants through their highest risk period.

Abrysvo, the Pfizer RSV vaccine, has been [tried](#) in pregnant women. In [clinical trials](#), this vaccine has been shown to reduce illness in infants for up to six months. It has been [approved](#) in pregnant women in the United States, but is not yet approved in Australia.

An antibody product called palivizumab has been available for many years, but is only [partially effective](#) and extremely [expensive](#), so has only been given to a small number of children at very high risk.

A newer antibody product, nirsevimab, has been [shown](#) to be effective in reducing infections and hospitalizations in infants. It was [approved](#) by the TGA in November, but it isn't yet clear how this would be accessed in Australia.

What now?

RSV, like influenza, is a major cause of respiratory illness, and the development of effective vaccines represents a major advance.

While the approval of the first vaccine for older people is an important step, many details are yet to be made available, including the cost and the timing of availability. GSK has [indicated](#) its vaccine should be available soon. While the vaccine will initially only be available on private prescription (with the costs paid by the consumer), GSK has applied for it to be made free under the National Immunization Program.

In the near future, we expect to hear further news about the other vaccines and antibodies to protect those at higher risk from RSV disease, including [young children](#).

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Provided by The Conversation

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