



VACCINE: VARICELLA



1. Vaccine indication

Varicella vaccine is indicated for the active primary prevention of varicella in persons not previously infected with the varicella-zoster virus (VZV).

2. Rationale for vaccination

The primary objective of varicella vaccination is the prevention of infection with VZV, thereby preventing the occurrence of congenital varicella infection in pregnant women which can cause central nervous system damage.

3. Type of vaccine

Live-attenuated viral vaccine.

4. Composition of the vaccine

Varicella vaccine is developed from the live-attenuated Oka strain of varicella virus, prepared by serial passaging in human diploid cells. The vaccine has a shelf life of two years when stored at 2°C to 8°C and protected from light. However, it is best to store the vaccine at -15°C to better preserve vaccine potency.

5. Immunogenicity of the vaccine

Following the administration of a single dose to children, seroconversion is seen in 95%. For adolescents and adults the seroconversion rate is 78% after the first dose and 99% after the second dose.

6. Efficacy and long-term protection

Varicella vaccination has been found to be highly effective in preventing disease. The vaccine can offer 70% to 90% protection against varicella of any severity and 95% protection against severe varicella for up to 10 years following vaccination. Studies in the United States show that when the vaccine is administered within 3 days of exposure to VZV, a post-exposure protective efficacy of at least 90% may be expected. Long term efficacy studies have shown that there is between 1% to 3% breakthrough infections.

7. Candidates for vaccination

Varicella vaccine is not available as part of the EPI (SA) schedule, however there are persons who are at an increased risk of VZV infection and should be vaccinated. They include the following:

- Children less than 10 years of age
- Household contacts of persons infected with varicella
- Immunocompromised individuals
- Unvaccinated young adults

8. Vaccination regimen and route of administration

- Varicella vaccine is administered subcutaneously to the deltoid muscle for older children and young adults
- One dose is given to children from 9 months to 12 years
- Two doses given to adolescents (> 13 years) and adults one month apart

9. Side effects and special precautions

Reactions to the varicella vaccine are usually mild. Candidates who have a history of an anaphylactic reaction to any component of the vaccine should not be vaccinated. Varicella vaccine should also not be given to persons with severe immune deficiency, and pregnant women. Asymptomatic HIV positive persons can be vaccinated provided that their CD4 is not less than 400.

Common side-effects following varicella vaccination include:

- Pain at the site of injection
- Mild fever and headache
- Rash

Where to find us:

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