



## VACCINE: MUMPS



### 1. Vaccine indication

Mumps vaccine is indicated for the active primary prevention of mumps in persons not previously infected with the mumps virus.

### 2. Rationale for vaccination

The primary objective of mumps vaccination is the prevention of infection with the mumps virus, thereby preventing mumps-associated complications such as orchitis, meningitis, encephalitis, and pancreatitis.

### 3. Type of vaccine

Live-attenuated viral vaccine.

### 4. Composition of the vaccine

Mumps vaccine is developed from different strains of live-attenuated mumps virus. The strains are propagated in embryonated egg culture, chick embryo fibroblast cell culture, human diploid cell culture, or primary guinea pig kidney cell culture. The vaccine can be stored at  $-20^{\circ}\text{C}$  in lyophilised form for at least 3 years. The vaccine should be stored at  $2^{\circ}\text{C}$  to  $8^{\circ}\text{C}$  and be protected from light. The vaccine can be available as a monovalent; a bivalent in combination with measles or rubella vaccines, MM/MR; or a trivalent in combination with measles and rubella vaccines, MMR.

### 5. Immunogenicity of the vaccine

Following mumps vaccination, there is a general immune response in 95% of the vaccines. Studies conducted on the immune response to the different mumps vaccines have shown immunogenicity to range between 88% and 96.9%. Immunocompromised individuals and haemodialysis patients often require more doses as these groups respond poorly to a standard vaccination schedule.

### 6. Efficacy and long-term protection

Mumps vaccine is very efficacious and studies have shown the protective efficacy rate to be 95% in vaccinated individuals. Even though long term studies are limited, it is estimated that antibodies following vaccination can persist for at least 20 years.

## **7. Candidates for vaccination**

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

- Unvaccinated children
- Adolescents
- Childcare personnel
- Health care workers
- Military personnel

## **8. Vaccination regimen and route of administration**

- Mumps vaccine is administered subcutaneously to the anterolateral aspect of the thigh for infants, or the deltoid muscle for older children and young adults
- Mumps vaccine is given to a separate limb when administered simultaneously with other vaccines
- The vaccine is administered as a monovalent; a bivalent, MM/MR; or a trivalent MMR

## **9. Side effects and special precautions**

Reactions to the mumps vaccine are usually mild, although in rare events, cases of allergic reaction to the vaccine have been observed. In such cases, vaccination should be discontinued. Mumps vaccine should not be given to persons with severe immune deficiency. Asymptomatic HIV positive persons can be vaccinated.

Common side-effects following mumps vaccination include:

- Pain at the site of injection
- Fever that usually lasts for a day or two
- Parotitis occurring 10-14 days after vaccination
- Rash, pruritis and purpura also occur

### **Where to find us:**

South African Vaccination and Immunisation Centre (SAVIC)  
PO Box 173, University of Limpopo – Medunsa Campus  
0204, PRETORIA, Gauteng Province, South Africa  
Tel: + 27(12)521 3077, Fax: + 27(12)521 4284, Email: [info@savic.ac.za](mailto:info@savic.ac.za); <http://www.savic.ac.za>