



NHLS

# NATIONAL INSTITUTE FOR COMMUNICABLE DISEASES

A division of the

NATIONAL HEALTH LABORATORY SERVICE



NICD

## Frequently Asked Questions about Measles Vaccine For Health Care Professionals

### What is the current measles vaccination schedule?

As of April 2009, the Expanded Program on Immunizations (EPI) schedules measles vaccination at 9 months and a second vaccine at 18 months of age. The first vaccine dose provides an efficacy of 85-90%, whilst a second dose increases the efficacy to 93-99%.

### Which route of administration is used?

The vaccine is usually given as a deep subcutaneous injection, but may be given intramuscularly. Infants are vaccinated in the left thigh, whilst older children and adults are vaccinated in the deltoid region.

### What is the composition of the measles vaccine?

A monovalent live attenuated measles vaccine is used in the EPI-SA schedule. This vaccine does not contain any thiomersal or mercury compounds. The same strain is also available in a trivalent form in combination with mumps and rubella as MMR vaccine, which is available in the private sector.

### What type of adverse reactions after vaccination can be expected?

Common adverse reactions after vaccination (< 5% of vaccinated patients)

- Fever between 7 and 12 days following the vaccination.
- General rash between 7 and 10 days following vaccination.
- Pain at the site of injection.

These side effects are generally mild and are dealt with symptomatically.

Serious but rare adverse reactions after vaccination

- Encephalitis (1 in 2 million)
- Febrile seizures (1 in 3 000)
- Thrombocytopenia (1 in 30 000)
- Anaphylaxis (1 in 1 million)

The risks of serious complications following measles infection are significantly greater than vaccine-related serious adverse reactions. Person-to-person transmission of measles vaccine strains has never been documented.

### What are the contraindications for measles vaccination?

- Previous severe anaphylaxis following a measles vaccination.
- Patients with congenital immunodeficiency disorders
- Leukaemia, lymphoma or serious malignant disease
- Treatment with chemotherapy, therapeutic radiation, or high dose corticosteroids (>20mg/day or >2mg/kg/day prednisone or equivalent).
- Pregnant patients: theoretically, measles vaccine should be avoided in pregnancy. However, in the 3<sup>rd</sup> and possibly the 2<sup>nd</sup> trimesters of pregnancy, the benefit of vaccination may well outweigh the risks of complications due to measles infection (high risk of severe maternal morbidity, foetal loss, prematurity, and perinatal infection).
- HIV-infected persons are at increased risk for serious complications and death from measles infection. HIV-infection per sé is not a contraindication for vaccination, and the risk of complications of measles likely outweigh any potential risks from measles vaccination. The efficacy of measles vaccine may be suboptimal in persons with advanced HIV and they may not develop adequate protection post- vaccination. These persons are at risk for complications of measles infection and should receive vaccine in consultation with their health practitioners.
- Administration of immunoglobulin or other antibody-containing blood products may neutralize the effect of measles vaccine for 3 - 11 months. Following measles vaccination, receipt of such blood products should be delayed for at least 2 weeks if possible.
- There is currently no hyperimmune globulin for measles post- exposure prophylaxis. Pooled immunoglobulin is not effective. Measles vaccination post- exposure

### How should the vaccine be stored?

Maintaining the cold chain is very important. Lyophilized vaccine should be stored in the freezer, and reconstituted vaccine must be stored in the refrigerator at 2 - 8°C and used within 6 hours.

### Health care workers and vaccination

It is important to take responsibility for one's own health. All personnel that have contact with potentially infected patients should be vaccinated as part of the current campaign.

### How to deal with parents / patients concerned about vaccines and safety

- Inform them of the common side effects in advance, and assure them that most of these reactions will resolve spontaneously.
- Warn the parents / patients of possible severe reactions, and to seek medical advice as soon as these symptoms present. The parents should also be made aware that these severe reactions are very rare.
- Warn about homeopathic vaccines. Although these vaccines supposedly have lower side effect rates, the effectiveness of these vaccines has not been scientifically proven.
- Vaccines have no scientific link to autism, Attention Deficit Hyperactivity Disorder (ADHD) or Guillain-Barré syndrome. Parents should be made aware of the safety of the vaccine.

### Useful vaccine information websites

- South African Vaccination and Immunization Centre ([www.savic.ac.za](http://www.savic.ac.za)).
- National Institute of Communicable Diseases – FAQ on Measles ([www.nicd.ac.za/outbreaks/measles/docs/Measles\\_FAQ.pdf](http://www.nicd.ac.za/outbreaks/measles/docs/Measles_FAQ.pdf)).
- The Vaccine Page ([www.vaccines.org](http://www.vaccines.org)).
- WHO – Immunization Safety ([www.who.int/immunization\\_safety/en/](http://www.who.int/immunization_safety/en/)).