

## b Rubella clusters in South Africa, 2014

Since the beginning of this year, the NICD received three notifications of rubella clusters in educational or workplace settings. A total of hundred and thirty-four rubella cases were notified in these clusters, which occurred at a university in Western Cape Province, a primary school in Eastern Cape Province and a factory in KwaZulu-Natal Province. Rubella cases reported from the university and factory were adults of a wide age range, including women of child-bearing age; the primary school cluster affected mostly children under the age of 15 years.

Rubella infection during the first 18 weeks of pregnancy poses a serious risk to the developing fetus, and may result in congenital rubella syndrome (CRS). CRS is characterised by deformation of the fetus' developing organs, leading to hearing loss, cardiac defects, and other abnormalities.

All clusters of rubella need to be investigated and proper control and preventive measures put in place. When there is a cluster of rubella cases in an educational institution or workplace setting, the following measures are recommended:

- Ill persons with probable/confirmed rubella disease should be excluded from work or school for 7 days after onset of rash
- Health promotion messages should include the following:
  - ◊ education, considering that the mode of spread is through droplet and, to a lesser extent, direct contact with nasopharyngeal secretions.
  - ◊ Encourage ill employees to report to occupational health officer as soon as possible.
- In a school setting, all sick children should stay at home until they have recovered from the signs and symptoms of rubella infection before they go back to school.
- Pregnant women (known or potentially pregnant) must be particularly vigilant. Where feasible, pregnant women are advised to stay away from work until the outbreak is over – this would be 23 days after the onset of rash of the last reported case in the outbreak. Should a pregnant

woman develop symptoms suggestive of rubella, she must see a doctor immediately for counselling regarding the risks of adverse pregnancy outcomes following rubella infection

- In rubella outbreaks, susceptible individuals (i.e. those never previously exposed to rubella through natural infection or vaccination), especially women of childbearing age who are not pregnant, should be encouraged to get MMR vaccine. MMR vaccine is contra-indicated during pregnancy, and is it advisable to test for pregnancy before administering the vaccine.

In an outbreak situation, persons are considered immune to rubella if:

- they have documented evidence of having received at least one dose of MMR vaccine at  $\geq 12$  months of age
- there is laboratory evidence of rubella immunity (i.e. rubella IgG positive)
- there is laboratory confirmation of previous natural infection.

Rubella is endemic in South Africa, with clusters often occurring during autumn and spring. Rubella infection is characterised by rash, mild fever, posterior cervical and pre-auricular lymphadenopathy, and sometimes arthralgia. It is generally a mild illness in children, with little cause for concern. The signs and symptoms of rubella are often confused with that of measles infection. In South Africa rubella vaccine is not included in the Expanded Programme on Immunisation (EPI), but MMR is administered in the private sector. Most South Africans who are immune will have acquired rubella infection during childhood. Currently, active rubella surveillance is not routinely conducted in South Africa and rubella infection is not a notifiable medical condition. However, CRS is a notifiable medical condition, and women who are infected during their pregnancy must be followed up closely.

**Source:** Centre for Vaccines and Immunology, NICD-NHLS