Varicella Zoster (Chickenpox)
Frequently Asked Questions

1. What is chickenpox?

Chickenpox is an infectious disease characterized by fever and a blister-like rash caused by varicella-zoster virus (VZV). A first infection with VZV causes chickenpox. After recovery from chickenpox, the virus can be dormant (inactive or latent) in a nerve root (specifically the dorsal root ganglion of a sensory nerve). Reactivation of latent infection causes herpes zoster (shingles) – a localized, painful blister-like rash, in the area supplied by that nerve. Typically shingles occurs on the trunk, or face, on either the left or right side of the body, not both sides

2. Who can get chickenpox?

A person of any age can catch chickenpox if they have not had it previously, or if they have not been vaccinated . The risk of catching chickenpox is higher in those who work in or attend a school or child care facility or live with children.

3. Where does chickenpox occur in South Africa?

Chickenpox occurs across socio-economic groups and geographical regions in South Africa. Almost 90% of adults in a seroprevalence study of HIV infected ART-naïve patients had evidence of previous varicella infection. Globally almost 80% of persons are infected by 10 years of age.

4. How is chickenpox transmitted?

Varicella zoster virus is airborne and highly contagious. Approximately 90% of close contacts who are non-immune will catch chickenpox after exposure to persons with disease. A person with varicella is contagious from 1-2 days before rash onset until the sores have crusted. The incubation period is approximately 10-21 (mean 14-16) days after exposure to the virus. VZV can be spread from person to person by through infected respiratory secretions (coughing, sneezing) that are aerosolized

5. What are the signs and symptoms of chickenpox?

Fever and malaise (feeling ill) may occur 1 to 2 days before rash onset, particularly in adults. In children, the rash is often the first sign of disease. The rash usually appears first on the head, chest, and back then spreads to the rest of the body. The rash is itchy and progresses rapidly from flat sores to fluid-filled blisters before crusting. Asymptomatic infection (without rash, or with very few blisters) may occur. Classically, lesions appear in crops, and are therefore present in different stages of development – some at the papule, others at the blister and still others at the crusted stage.

6. What are the complications of chickenpox?

In children, secondary bacterial infections of the skin lesions is the most common complication, usually due to *Staphylococcus aureus.* In adults, pneumonia is a relatively common complication. Severe complications are rare, but include septicaemia (blood stream bacterial infection often due to *Streptococcus pyogenes*), toxic shock syndrome, infection of soft tissues, bones or joints (necrotizing fasciitis, osteomyelitis septic arthritis), brain infection (cerebellar ataxia, encephalitis). People at high risk for complications or severe infections include immunocompromised persons, people with HIV or AIDS and pregnant women. Infection during the 1st or early 2nd trimester of pregnancy may occasionally cause complications in the baby called congenital varicella syndrome. Symptoms of congenital varicella syndrome include scarring on the skin, smaller than usual limbs, a small head (microcephaly) and low birth weight. Mortality following varicella is lowest for children (1/100,000 cases) but higher for adults (25/100,000 cases)

7. How is chickenpox diagnosed?

Chicken pox is mostly diagnosed clinically without the need for laboratory testing. PCR for varicella virus on a swab of vesicle fluid is confirmatory. A blood test for antibodies (serology) can be positive. A rise in IgG titre is confirmatory. IgM testing is not recommended. The differential diagnosis for varicella includes enteroviral infections, commonly due to coxsackie A virus, unusual presentations of HSV1/2 or impetigo.

8. How is chickenpox treated?

Chickenpox typically requires no medical treatment and the disease is allowed to run its course. Lotions, such as calamine lotion, can be applied to the skin to ease itching. Persons with severe infection may be treated with an anti-viral medication acyclovir, or valacyclovir

9. How is chickenpox prevented?

Most adults in South Africa are immune (protected) to chicken pox because they have been infected as children. Adults who do not recall having had chickenpox as a child may have a test for antibodies (serology) to determine if they are immune. Vaccination against varicella is not part of the Expanded Programme of Immunisation in South Africa, but is indicated for children and adults in high risk categories. No official guidelines exist regarding vaccination. A varicella vaccine is available in the private sector as a monovalent vaccine or co-formulated with other live-attenuated vaccines measles, mumps and rubella. The ideal age of vaccination is between 12-15 months.

10. Where can I find out more information

For the Public:
http://www.cdc.gov/chickenpox/index.html
For Healthcare Workers: http://www.cdc.gov/chickenpox/hcp/index.html
Contact the NICD hotline in emergency situations
For more information contact Center for Vaccines and Immunology:
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