



Compiled 19 March 2024

Tanapox is a very rare zoonotic disease caused by the *tanapoxvirus* (TANV). This virus is a poxvirus, but is very different from other which have been associated with human disease (including cowpox, mpox, smallpox, molluscum contagiosum, and orf). A member of the *Yatapoxvirus* genus, TANV was first described following epidemics in 1957 and 1962 in the Tana River Valley of Kenya. Tanapox was thought to be endemic to equatorial Africa only, with non-human primates being considered as the natural reservoirs of the virus. South Africa's first case of tanapox was detected in 2022 in a traveller the southern parts of the Kruger National Park (KNP). Since then, South Africa has recorded two additional cases of tanapox in individuals who reside in the southern area of KNP in 2024.

### **Transmission**

Little is known about the natural ecology or epidemiology of tanapox which has up to date been very rarely reported. The virus is thought to circulate amongst wild non-human primates and be transferred mechanically by mosquitoes (i.e. through contaminated mouthparts). Culicine mosquitoes are the possible vector of the virus from infected primates. This hypothesis is based on the timing of tanapox reports, which follows periods of high rainfall when the population size of these mosquitoes increases. Transmission from primates to humans has only occurred in the laboratory environment through direct inoculation. No definitive cases of human-to-human transmission have been described.

### **Treatment and prevention:**

- No specific treatment for tanapox, typically resolve without intervention.
- Lesions could be covered loosely with cotton bandages to reduce possible risk of transmission. No human-to-human or infection from fomites has ever been recorded, but this should be considered a possibility (particularly if contact with broken skin or mucosal membranes).
- Currently no vaccination against tanapox. Vaccination against smallpox (and/or mpox) does not protect against TANV.
- The use of mosquito repellents is recommended when there is a risk of mosquito exposure. Other bite-prevention measures, such as wearing light and loose clothing, can further reduce the risk of exposures to arthropod-borne diseases including tanapox.

### **Signs and symptoms**

- Incubation period unknown, likely <7 days;
- Mild febrile illness including fever (>39 °C for 1-4 days), headache, fatigue and myalgia reported typically before lesion onset. Localised lymphadenopathy reported.
- Rash on abdomen have been reported;
- 1-3 (few reports with more lesions) lesions form around the same time. Lesions are often on exposed body parts such as extremities (not on soles), face. Small, discoloured, nodules, usually with inflammation and oedema of the surrounding skin, develop into larger nodules (1-2 cm) with umbilication (this is when tanapox can be suspected clinically), or crusted ulcers (1 cm) with a raised rim and a central depression. Lesions are sometimes painful and accompanied by pruritis. In contrast to lesions
- Disease has been self-limiting and self-resolving. Lesions typically heal within 6 weeks and may produce scars.
- No human deaths have been associated with tanapox.

### **Response to a suspected case:**

1. Establish that the patient meets the signs and symptoms for suspected tanapox.
2. Consult the NICD hotline (0800 212 552) for advice if required.
3. Fully complete the case investigation form (available from [www.nicd.ac.za/tanapox](http://www.nicd.ac.za/tanapox)).
4. Submit samples to NICD Centre for Emerging Zoonotic and Parasitic Diseases (CEZPD) for specialised laboratory testing. See laboratory guidance on submission of samples for tanapox testing (available from [www.nicd.ac.za/tanapox](http://www.nicd.ac.za/tanapox)).

### **Differential diagnosis:**

Differential diagnoses could include cutaneous anthrax, other poxvirus infections (such as orf), sporotrichosis, *Mycobacterium marinum*, tick bite fever, tropical ulcers, insect bites and scabies.

Careful review of exposure history may assist in the diagnosis.