

Rickettsial infections



The Rickettsiae are a diverse group of bacteria some of which can be transmitted to humans via the bites of fleas, lice, ticks or mites.

Several Rickettsia species present in Australia are capable of causing disease in people. These species include:

- > *Rickettsia australis* – Queensland tick typhus
- > *Orientia tsutsugamushi* – scrub typhus
- > *Rickettsia honei* – Flinders Island spotted fever
- > *Rickettsia typhi* – murine typhus.

Although rickettsial infections are relatively rare, they have been reported along the eastern Australian seaboard, Flinders Island and the east coast of Tasmania, as well as the Fleurieu Peninsula in South Australia and southern coastal Western Australia.

Rickettsia prowazekii (epidemic typhus) is spread by human body lice and can result in outbreaks of disease, but is only seen in conflict settings and refugee camps and is not naturally occurring in Australia.

How rickettsial infections are spread

Rickettsiae are usually injected directly from the saliva of ticks and mites as they feed on humans and, in the case of fleas, by contamination of bite sites by faeces.

Signs and symptoms

There is great variation in the range and severity of symptoms experienced.

Commonly a small, hard, black sore (called an eschar) first appears at the bite site where the infection was introduced.

Other typical symptoms may include:

- > fever
- > headache
- > muscle aches
- > swollen lymph glands
- > cough
- > rash.

Less common severe infections can be associated with confusion and breathing difficulties.

Diagnosis

Given that these infections are not common and usually mild they can be difficult to diagnose. While signs and symptoms can suggest the diagnosis, a definite diagnosis is made with a blood test or skin biopsy (for example a sample of skin) of the bite site.

Incubation period

(time between becoming infected and developing symptoms)

Between 3 to 10 days.

Infectious period

(time during which an infected person can infect others)

Infections are not transmitted from person-to-person.

Treatment

Treatment is usually with the tetracycline antibiotic doxycycline which reduces the duration and severity of infection.

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Prevention

- > Exclusion of people with rickettsial infections from childcare, preschool, school and work is not necessary.
- > There is no vaccine available to prevent infection.
- > Wear long sleeved protective clothing and a broad brimmed hat to reduce the risk of infection when undertaking activities where human contact with ticks, lice, mites or fleas may occur, such as bushwalking and camping in infected areas.
- > Use an insect repellent containing DEET or picaridin and examine your skin for possible bites (especially behind the ears, on the back of the head, in the groin, armpits and behind the knees) following these activities.

Useful links

SA Health website – www.sahealth.sa.gov.au

- > Protecting yourself and your health whilst travelling overseas

You've Got What? 5th Edition

Communicable Disease Control Branch

Telephone: 1300 232 272 Email: HealthCommunicableDiseases@sa.gov.au

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