

Microsporium canis Fact Sheet

Microsporium canis is a fungal species that causes numerous forms of disease. It is part of a group of fungi known as Dermatophytes. Though mostly well known for ringworm in pets, it is also known to infect humans. This fact makes this pathogen both anthrophilic and zoophilic in nature. *Microsporium canis* is a communicable pathogen.

General Information

Mycology

Microsporium canis is part of a family of fungi known as dermatophytes. Microscopically, it has multi-celled spores known as macroconidia with rough thick walls. Macroconidia are characteristically spindle shaped with 5-15 cells. On a culture medium it grows white and cottony with a yellow perimeter and a bright yellow orange underside. It can be found in a variety of environments and survive for up to 15 months. It feeds on the keratin on the outer layers of skin, hair and nails. The natural reservoir of *Microsporium canis* is in cats and dogs.

Epidemiology of transmission

The main reservoir for *Microsporium canis* are cats and dogs; however, it can also be transmitted to humans through direct and indirect contact with animals and fomites such as combs, brushes, hats, furniture, linens etc. The greatest risk factor for acquiring infection is contact with damaged cells on skin, hair and nails. *Microsporium canis* can infect all mammals.

Clinical manifestations

Infections of ringworm on the skin are known to be raised red rings on the infected region. If infection occurs on the foot, they cause the disease athlete's foot. Finally infection of the nails is known as onychomycosis, where the nails typically become discoloured and thick, before eventually falling off. *Microsporium canis* is among the three main species of fungi, responsible for 95% of the fungal infections in animals.

Basic Prevention

The following measures can be followed to help prevent infection: Minimize or eliminate direct contact with infected animals and related fomites. If contact with infected areas of skin or infected animals is unavoidable, wash hands immediately after exposure. Wash/change bedding as frequently as possible- as shed skin may also spread infection. As soon as infection is suspected seek medical attention.

Infection Prevention and Control Measures

Healthcare Prevention Measures

Routine / Standard Precautions are sufficient preventative measures to follow when providing care to patients who are suspected or confirmed to have *Microsporium canis* infection.

- Use PPE barriers (such as gloves) when anticipating contact with infected skin
- Immediately wash hands and other skin surfaces after contact
- Gloves should be worn when handling potentially infectious specimens, cultures or tissues; laboratory coats, gowns or suitable protective clothing should be worn

Environmental control measures

Hospital-grade cleaning and disinfecting agents with fungicidal claims are sufficient for environmental cleaning. All horizontal and frequently touched surfaces should be cleaned daily and when soiled by wiping with a damp cloth to avoid dispersal of dust. The healthcare organization's terminal cleaning protocol for cleaning of patient rooms following discharge or transfer should be followed. All patient care equipment should be cleaned and disinfected as per Routine / Standard Practices before reuse with another patient or a single use device should be used and discarded in a waste receptacle after use.



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References:

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