



WHO Fact Sheet: Anthrax

Overview

Anthrax is primarily a disease of herbivorous mammals, although other mammals and some birds have been known to contract it. Humans generally acquire the disease directly or indirectly from infected animals, or occupational exposure to infected or contaminated animal products. Control in livestock is therefore the key to reduced incidence. There are no documented cases of person to person transmission. The disease's impact on animal and human health can be devastating. WHO has produced *Guidelines for the surveillance and control of anthrax in humans and animals*.

The causative agent of anthrax is the bacterium, *Bacillus anthracis*, the spores of which can survive in the environment for years or decades, awaiting uptake by the next host.

The disease still exists in animals and humans in most countries of sub-Saharan Africa and Asia, in several southern European countries, in the Americas, and certain areas of Australia. Disease outbreaks in animals also occur sporadically in other countries.

There are 3 types of anthrax in humans: cutaneous anthrax, acquired when a spore enters the skin through a cut or an abrasion; gastrointestinal tract anthrax, contracted from eating contaminated food, primarily meat from an animal that died of the disease; and pulmonary (inhalation) anthrax from breathing in airborne anthrax spores.

The cutaneous form accounts for 95% or more of human cases globally. All 3 types of anthrax are potentially fatal if not treated promptly.

Prevention

Prevention of anthrax in both humans and animals is based on control measures in livestock in endemic areas, such as the safe disposal of anthrax carcasses and vaccination of at-risk herds. The most efficient method of disposal is incineration in a manner that ensures heat sterilization of the

underlying soil. In practice, local conditions in many endemic countries make these simple control measures difficult to implement. In industrialized countries, prevention lies in good agricultural and industrial hygiene. Vaccines are available for animals and humans. However in humans their use should be confined to high-risk groups, such as those occupationally exposed and in some military settings.

Patient isolation is not required and there are no quarantine requirements. Dressings and other contaminated materials should be disposed of, preferably by incineration.

Treatment

Antibiotic therapy usually results in dramatic recovery of the individual or animal infected with anthrax if given before onset or immediately after onset of illness. Antibiotic therapy may be also used for prophylaxis in asymptomatic patients believed to have been exposed to anthrax spores.

Containment in animals

Following the first detection of anthrax in a herd, the remaining animals should be removed immediately from the field and checked regularly for signs of illness. In endemic areas, or if there is concern that the outbreak may spread, the herd should be vaccinated.