UNIVERSITY OF South Carolina

Acinetobacter baumannii

General Information

Acinetobacter baumannii is a rod-shaped Gram-negative bacterium that is commonly found in environmental sources like soil and water. While there are several types of Acinetobacter, *A. baumannii* is responsible for most Acinetobacter infections in humans that mainly occur in healthcare settings.

Host Range

Humans

Incubation Period

Symptoms usually appear 4-40 days after exposure.

Survival Outside Host

A. baumannii can live for long periods of time on environmental surfaces.

Laboratory Hazards

Direct person-to-person contact and indirect contact with contaminated surfaces. Primary lab hazards are mucous membrane, percutaneous, and broken skin.

Symptoms of Exposure

Healthy, immunocompetent individuals typically do not experience symptoms or infections. People who are immunocompromised or who have certain underlying health conditions may be more susceptible to infections. *A. baumannii* can cause pneumonia or blood, wound, or urinary tract infections. Symptoms include fever, chills, cough; in a wound infection: pain, redness, pus; in a urinary tract infection: blood or cloudy urine, and pain or burning during urination.

Lab Acquired Infections (LAIs)

None reported.

Personal Protective Equipment

Disinfection & Inactivation

10% bleach, 70% ethanol, 3% peracetic acid, Cavicide. Inactivated by UV-C and autoclaving.

Waste Management

Refer to USC's Biological and Infectious Waste Management Plan.

Lab Containment

Biosafety Level 2 (BSL-2) for activities with materials and cultures known or reasonably expected to contain *A. baumannii.*.

Animal Containment

Animal Biosafety Level 2 (ABSL-2) for activities with experimentally infected animals.

Medical Surveillance/Treatment

Surveillance: Identified by bacteriological culture
Prophylaxis: None
Vaccines: None
Treatment: Antibiotics; many strains are resistant to several antibiotics

Spill Procedures

See USC Biological Spill Procedures

Exposure Procedures

See USC Protocol for Post Exposure Evaluation and Follow-up Use of sharps should be strictly limited. A biosafety cabinet should be used when there is a potential to create aerosols or droplets.

References

Virginia Department of Health. Epidemiology Fact Sheets. Acinetobacter Infection

CDC. *Acinetobacter* in Healthcare Settings. https://www.cdc.gov/HAI/organisms/acinetobacter.html

Cornell University. *Acinetobacter baumannii* Biological Agent Reference Sheet (BARS).

Vipin K. Rastogi *et al.* Disinfection of *Acinetobacter baumannii*-Contaminated Surfaces Relevant to Medical Treatment Facilities with Ultraviolet C Light, *Military Medicine*, Vol 172, Issue 11, Nov. 2007, Pages 1166–1169, https://doi.org/10.7205/MILMED.172.11.1166