

Adenovirus Pathogen Safety Data Sheet

Pathogenicity/Toxicity

Adenoviruses most commonly cause respiratory illness in humans. The illnesses can range from the common cold to pneumonia, croup, and bronchitis. Depending on the type and local of infection, adenoviruses can cause other illnesses such as gastroenteritis, conjunctivitis, cystitis, and, less commonly, neurological disease.

Hazard Identification

Epidemiology	Distributed worldwide
Host Range	Humans and animals.
Transmission	Respiratory and fecal-oral routes.
Infectious Dose	Inhalation of as few as 5 adenovirus particles can cause disease in susceptible Individuals.
Incubation Period	Approximately 2 to 14 days.
Communicability	Infection can spread through contaminated fomites, fingers, ophthalmic solutions, and airborne particulates.

Stability/Viability

Drug Susceptibility	Cidofovir
Drug Resistance	Some strains of adenovirus are resistant to ribavirin.
Susceptibility to Disinfectants	Susceptible to 10% Bleach, 70% ethanol, and 2% formaldehyde.
Physical Inactivation	Inactivated by moist heat (15 minutes at 121°C) and dry heat (1 hour at 160-170°C)
Survival Outside Host	Stable at 36°C for a week, several weeks at room temperature, several months at 4°C, and 7 days to 3 months on dry surfaces.

First Aid/Medical

Immunization	None available
Prophylaxis	None available
Treatment	Cidofovir has been reported to be effective but no controlled trials have been performed.

Laboratory Hazards

Laboratory Acquired Infections (LAIs)	10 cases of laboratory acquired infections have occurred up to 2006.
Primary Hazards	Fecal samples and respiratory secretions.
Special Hazards	None

Exposure Controls

Containment	BSL-2 for all procedures involving infectious specimens or cultures; ABSL-2 for procedures involving animals infected with <i>Adenovirus</i>
Required PPE	At minimum, gloves, closed toed shoes, lab coat, and appropriate face and eye protection prior to working with <i>Adenovirus</i> Additional PPE may be required depending on lab specific SOPs.
Other Precautions	Use of BSC for procedures that may produce aerosols & those that involve high concentrations/large volumes; limited sharps usage

Exposure Procedures

Personnel Exposure	In the event that a substance enters the mouth, eyes, lungs, or penetrates/makes contact with skin: <ul style="list-style-type: none"> Alert others in the lab Remove contaminated PPE & clothing Flush eyes/mouth with water for 5 min or wash exposed skin with soap & water
Reporting	Report immediately to the PI or lab/facility manager. Report to the Biosafety Office with 48 hours. Complete an Employee Injury Report form (if required) and submit to EHS.
Emergency Assistance	Emergency assistance can be obtained by dialing 911.
Medical Follow-up	<u>During Business Hours</u> University Health Services 1202 W. Farm Road Stillwater, OK 74078 <u>After Business Hours</u> Stillwater Medical Center ER 1323 W. 6 th Ave. Stillwater, OK 74074

OSU Biosafety Office Contacts

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