

Differential Diagnosis for a Respiratory Disease Outbreak: Demographic and Epidemiologic Data

Pathogen	Disease	Incubation period	Person to person transmission?	Means of transmission	Attack rate	Case fatality	Age groups primarily affected	Season	U.S. (temperate) regions	International regions
Adenovirus	Adenovirus	2 to 14 days	Yes	Fecal-oral Droplet Contact	High	Low	Children Adults	Any	All	Worldwide
<i>Bacillus anthracis</i>	Anthrax	1 to 60 days	No	Aerosol Contact Ingestion	Moderate	High	All	Any	All	Worldwide, except Antarctica
<i>Blastomyces dermatitidis</i>	Blastomycosis	2 to 8 weeks	No	Inhalation	Low	Low	All	Any	Central/Midwest Southeast	Mexico Central America South America
<i>Bordetella pertussis</i>	Pertussis	5 to 21 days	Yes	Droplet	High	Low	Children Adults	Summer , Fall	All	Worldwide
<i>Chlamydia (Chlamydomphila) psittaci</i>	Psittacosis	5 to 14 days	Rare	Inhalation Droplet	Low	Low	All	Any	All	Worldwide
<i>Chlamydia (Chlamydomphila) pneumoniae</i>	Chlamydia pneumonia	1 to 4 weeks	Yes	Droplet	High	Low	All	Any	All	Worldwide
<i>Coccidioides immitis</i>	Coccidioidomycosis	1 to 3 weeks	No	Inhalation	High	Low	Adults	Any	Southwest Central/Midwest	Mexico Central America South America
Coronavirus	SARS	2 to 10 days	Yes	Droplet Contact	Low	Moderate	Adults	Any	All	Worldwide, except SARS-HCoV: China, Hong Kong, Taiwan, Singapore, Canada (last case 2004)
<i>Coxiella burnetii</i>	Q fever	2 to 3 weeks	Rare	Inhalation, Contact with contaminated materials, Tick bite	Moderate	Low	Adults	Any	All	Worldwide
<i>Francisella tularensis</i>	Tularemia	1 to 21 days	No	Aerosol Ingestion Animal bite Insect bite Aerosol Skin wound	Low	Moderate	All	Summer , Winter	All	Northern Hemisphere
Group A <i>Streptococcus</i>	Strep pharyngitis Rheumatic fever	1-3 days (strep pharyngitis)	Yes	Droplet	Moderate	Low	All	Winter, Spring	All	Worldwide
<i>Haemophilus influenzae</i>	H. influenza	Unknown	Yes	Droplet	Low	Low	Children Adults	Winter	All	Worldwide
Hantaviruses, New World	Hantavirus pulmonary syndrome	1 to 4 weeks	Rare (Andes virus)	Droplet, Aerosol, Mucous membrane	Low	High	Adults	Summer , Fall	All	North, Central, and South America

<i>Histoplasma capsulatum</i>	Histoplasmosis	3 to 21 days	No	Inhalation	Moderate	Low	Adults	Any	Central/Midwest	Worldwide, especially Central and South America
<i>Human metapneumovirus</i>	Human metapneumovirus	2 to 8 days	Yes	Droplet Contact	High	Low	Children	Winter, Spring	All	Worldwide
<i>Influenza viruses</i>	Influenza	1 to 4 days (typically 2-3 days)	Yes	Primarily large droplet; likely small particle nuclei	Moderate to High	Depends upon affected population	All	Winter (U.S.)	All	Worldwide
<i>Legionella spp.</i>	Legionnaires' disease Pontiac fever	2 to 10 days, 1-3 days (Pontiac fever)	No	Aerosol Aspiration	Moderate	Moderate	Adults	Summer, Fall	All	Worldwide
<i>Mycobacterium tuberculosis</i>	Tuberculosis	2 to 10 weeks to positive tuberculin skin test (TST) (initial infection); Months or years to disease	Yes	Aerosol	Low	Low; May be moderate or high if drug resistant, especially if HIV co-infected	All	Any	All	Worldwide
<i>Mycoplasma pneumoniae</i>	Mycoplasma	2 to 4 weeks	Yes	Droplet	High	Low	Children Adults	Fall	All	Worldwide
<i>Parainfluenza virus types 1-4</i>	Parainfluenza	2 to 6 days	Yes	Droplet Contact Fomites	High	Low	Children	Fall (1,2) Spring (3) Summer (3)	All	Worldwide
<i>Respiratory syncytial virus</i>	RSV	2 to 8 days	Yes	Droplet Contact	High	Low	Children	Fall, Winter, Spring	All	Worldwide
<i>Rhinovirus</i>	Rhinovirus	2 to 7 days	Yes	Aerosol Droplet Contact Fomites	High	Low	All	Fall, Spring, Summer	All	Worldwide
SARS-CoV-2	COVID-19	1 to 14 days	Yes	Droplet Contact	High	Moderate	All	Any	All	Worldwide
<i>Streptococcus pneumoniae</i>	Pneumococcus	1 to 3 days	Yes	Droplet	Moderate	Moderate	Children Adults	Winter	All	Worldwide
<i>Yersinia pestis (secondary to bubonic plague)</i>	Bubonic plague with secondary pneumonic plague	1 to 7 days	Rare	Animal Contact Flea bite	Low	High	Children Adults	Spring, Summer	Southwest	South America Asia Africa
<i>Yersinia pestis (primary pneumonic plague)</i>	Primary pneumonic plague	1 to 6 days	Rare	Animal Contact Droplet	Moderate	High	All	Spring, Summer	Southwest	South America Asia Africa