

Treatment and Decontamination of Biological Agents Chart

Bacteria

Disease or Agent	Dissemination	Transmission	Incubation Period	Typical Effects	Treatment	Lethality	Decontamination
Anthrax (<i>bacillus anthracis</i>)	inhalation, cutaneous (skin ingestion)	no (except cutaneous)	1 - 6 days, initial symptoms often followed by short improvement, shock and death 24 -36 hours after severe symptoms	inhales: fever, chills, malaise, headache, myalgia, eye pain, hyperaesthesias, severe respiratory distress cutaneous: black sores	early antibiotics often effective, especially for cutaneous, usually not effective after inhalations symptoms appear	pulmonary: 100% if untreated skin: low if treated	sporicidal agent (iodine, chlorine)
Brucellosis (<i>brucella melitensis</i>)	aerosol	no (except open skin lesions)	variable (1 week to several months - typically 3 - 4 weeks)	fever, chills, sweating, malaise, headache, myalgia, eye pain, weakness, fatigue, sometimes cough	antibiotics	low if treated	bactericidal solutions on contaminated surfaces, precaution with secretions
Cholera (<i>vibrio cholera</i>)	ingestion and aerosol	rate	12 - 72 hours	sudden onset diarrhea, cramps, vomiting, headache	antibiotics, fluids, electrolyte replacement	low with treatment	bactericidal solutions, enteric precautions; hand washing with soap and water
Plague (<i>yersinia pestis</i>)	aerosol	high	1 - 3 days for pneumonic 2 - 10 days for bubonic	brain inflammation, high fever, chills, headache, rash, hypotension, pulmonary syndrome, tender lymph nodes (bubonic)	early antibiotics are effective	high if untreated	precaution with secretions, heat disinfectants to exposure to sunlight
Tularemia (<i>francisella tularensis</i>)	aerosol	no	1 - 10 days	sore throat, pulmonary syndrome, rash fever, chills, malaise, weight loss, non-productive cough	antibiotics very effective	moderate if untreated	precaution with secretions, heat and disinfectants

Rickettsia

Q fever (<i>coxiella burnetii</i>)	ingestion and aerosol	rare	14- 16 days	fever, chills, malaise, headache, myalgia, eye pain, hyperaesthesias, pulmonary syndrome, cough, chest pain	antibiotics	very low	soap and water bleach
---	-----------------------	------	-------------	---	-------------	----------	-----------------------

Viruses

Smallpox (variola virus)	aerosol	high (upon appearance of rash)	10 - 12 days	fever, hypotension, rash	ribavarin, prophylaxis vaccine with 3 days of exposure	low	quarantine, airborne precautions, bleach or phenolic disinfectants, contact precautions
Venezuelan Equine Encephalitis (VEE)	aerosol and infected vectors	low (infectious for 72 hours)	1 - 6 days	sudden onset malaise, fever, rigors, headache, eye pain, nausea, vomiting, cough, sore throat, diarrhea	supportive only	low	blood and body fluid precautions, destroy virus with heat and disinfectants
Viral Hemorrhagic fevers (VHF): Ebola, Lassa, Marburg, Hanta, Rift Valley, Dengue, Yellow Fever	contact and aerosol	moderate	4 - 16 days	fever, easy bleeding, edema, malaise, headache, vomiting, diarrhea, jaundice, shock, sore throat, rash	intensive supportive care, antiviral drugs (ribavarin) or plasma for some, isolation, barrier procedures	moderate to high	bleach or phenolic disinfectants, contact precautions, additional precautions if massive bleeding