Table 8. Category A Biological Agents/Diseases: Mode of Transmission and Precautions, Incubation Period, Symptoms, Treatment

Disease/Biological Agent	Mode of Transmission and Precautions	Incubation Period	Symptoms	Treatment
Anthrax/ *Bacillus anthracis*	Inhalation (Droplet/Airborne precautions) Skin contact (Contact precautions) Ingestion	1-6 days	**Inhaled** – fever, fatigue, general malaise, non-productive cough, and mild chest discomfort **Cutaneous** – fluid-filled vesicle dries to form eschar **Gastrointestinal** – fever, nausea, abdominal pain, bloody diarrhea	Supportive airway management; ciprofloxacin or doxycycline
Smallpox/ *Variola major*	Inhalation (Droplet/Airborne precautions) Skin contact (contact precautions)	1-3 weeks	Malaise, fever, rigors, vomiting, headache, and backache; within 2-3 days, lesions on face, hands, and forearms progressing from pustular vesicles	Supportive treatment; isolation until scab separation
Plague/ *Yersinia pestis*	Inhalation (Droplet/Airborne precautions) Contact precautions if draining buboes present	2-10 days	High fever, chills, headache, malaise, cough, often hemoptysis, progresses quickly to dyspnea, stridor, cyanosis, and death	Antibiotic therapy (streptomycin, gentamicin, doxycycline, or choramphenicol) within 24 hours of symptom onset
Botulism/ *Clostridium botulinum*	Inhalation (Droplet/Airborne precautions) Ingestion	12-36 hours	Dry mouth and urinary retention; blurred vision, ptosis, photophobia, dysphonia and dysphagia followed by skeletal muscle paralysis in a symmetrical, descending, progressive manner; upper airway collapse, sudden respiratory failure	Botulinum antitoxin or heptavalent antitoxin; Respiratory assistance as needed
Tularemia/ *Franciscella tularensis*	Inhalation (Droplet/Airborne precautions) Ingestion Skin contact (Contact precautions)	3-6 days (incubation range 2-14 days)	Fever, headache, chills; rigors, generalized body aches, coryza, and sore throat; bacteremia; dry or slightly productive cough; substernal pain or tightness with or without objective signs of pneumonia, nausea, vomiting, and diarrhea; sweats, progressive weakness, malaise, anorexia, and weight loss characterize the	Streptomycin, Gentamicin Alternatively, Doxycycline, Chloramphenicol, Ciprofloxacin Postexposure prophylactic treatment of close contacts is not

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			continuing illness	recommended because person-to-person transmission is not known to occur.
Ebola Hemorrhagic Fever	Blood and Body Fluids (Standard Precautions) Mucosal transmission (mask, goggles) Airborne transmission has not been ruled out (Droplet/Airborne Precautions)	2 to 21 days	Abrupt onset of fever, headache, joint and muscle aches, sore throat, weakness, diarrhea, vomiting, stomach pain, rash, red eyes, hiccups, internal and external bleeding, thrombocytopenia, platelet dysfunction, necrosis of visceral organs	No standard treatment for Ebola HF; supportive therapy consisting of the balance of fluids and electrolytes, maintenance of oxygen status and blood pressure; treatment of any complicating infections
Marburg Hemorrhagic Fever	Blood and Body Fluids (Standard Precautions) Airborne droplets (Airborne/Droplet Precautions)	5-10 days	Sudden fever, chills, headache, myalgia; on 5th day a maculopapular rash on trunk; nausea, vomiting, chest pain, sore throat, abdominal pain, diarrhea, jaundice, pancreatic inflammation, severe weight loss, delirium, shock, liver failure, massive hemorrhaging, and multi-organ dysfunction, thrombocytopenia; Recovery may be prolonged and accompanied by orchititis, recurrent hepatitis, transverse myelitis or uvetis, inflammation of the testes, spinal cord, eye, parotid gland, or by prolonged hepatitis; the case-fatality rate is between 23-25%.	Specific treatment is unknown; supportive hospital therapy including balance of fluids and electrolytes, maintenance of oxygen status and blood pressure, replacement of lost blood and clotting factors; treatment of any complicating infections
Lassa Hemorrhagic Fever	Blood and body fluids (Standard Precautions) Airborne	7-21 days	Fever, retrosternal pain, sore throat, back pain, cough, abdominal pain, vomiting, diarrhea, conjunctivitis, facial	Ribavirin (not FDA approved for use in this illness); most effective when given early in the course of

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	Transmission has not been ruled out.		swelling, proteinuria, mucosal bleeding; Neurological problems including hearing loss, tremors, and encephalitis; may lead to thrombocytopenia, and platelet dysfunction	the illness; supportive care consisting of maintenance of appropriate fluid and electrolyte balance, oxygenation and blood pressure, and treatment of any other complicating infections
Yellow Hemorrhagic Fever	Vector-borne transmission: mosquitoes (Use of mosquito repellant, protective clothing, mosquito netting) Airborne transmission has not been ruled out.	3-6 days	Initial symptoms include fever, headache, vomiting and backache. As the disease progresses, the pulse slows and weakens, and bleeding of the gums and bloody urine occur. Jaundice may also occur.	No specific treatment. Yellow fever live attenuated 17D vaccine is highly effective prophylaxis.
Rift Valley Hemorrhagic Fever	Vector-borne: mosquitoes and other blood sucking insects (Use of mosquito repellents, protective clothing, mosquito netting) Blood and body fluids of infected animals (Avoidance of contact with infected animals) Airborne transmission has not been ruled out.	2-6 days	Several different disease syndromes possible with either no symptoms or a mild illness associated with fever and liver abnormalities; in some patients the illness can progress to hemorrhagic fever, encephalitis, or ocular disease. Those who become ill usually experience fever, generalized weakness, back pain, dizziness, and extreme weight loss at the onset of the illness. Typically, recovery occurs within two days to one week after onset of illness; the most common complication is inflammation of the retina with approximately 1% - 10% having some permanent vision loss	No established course of treatment; animal studies show some promise for future use ribavirin in humans; additional studies suggest that interferon, immune modulators, and convalescent-phase plasma may also be helpful.