

Appendix C: BW Agent Characteristics

Disease	Transmit Human to Human	Infective Dose (Aerosol)	Incubation Period	Duration of Illness	Lethality (approx. case fatality rates)	Persistence of Organism	Vaccine Efficacy (aerosol exposure)
Anthrax	No	8,000-50,000 spores	1-6 days	3-5 days (usually fatal if untreated)	High	Very stable - spores remain viable for > 40 years in soil	2 dose efficacy against up to 1,000 LD ₅₀ in monkeys
Brucellosis	No	10 -100 organisms	5-60 days (usually 1-2 months)	Weeks to months	<5% untreated	Very stable	No vaccine
Cholera	Rare	10-500 organisms	4 hours - 5 days (usually 2-3 days)	≥ 1 week	Low with treatment, high without	Unstable in aerosols & fresh water; stable in salt water	No data on aerosol
Glanders	Low	Assumed low	10-14 days via aerosol	Death in 7-10 days in septicemic form	> 50%	Very stable	No vaccine
Melioidosis	Low	Assumed low	1-21 days (up to years)	Death in 2-3 days with septicemic form (untreated)	19 – 50% for severe disease	Very stable; survives indefinitely in warm moist soil or stagnant water	No vaccine
Plague	Moderate, Pneumonic	100-500 organisms	1-7 days (usually 2-3 days)	1-6 days (usually fatal)	High unless treated within 12-24 hours	For up to 1 year in soil; 270 days in live tissue	3 doses not protective against 118 LD ₅₀ in monkeys
Tularemia	No	10-50 organisms	1-21 days (average 3-6)	≥ 2 weeks	Moderate if untreated	For months in moist soil or other media	80% protection against 1-10 LD ₅₀
Q Fever	Rare	1-10 organisms	7-41 days	2-14 days	Very low	For months on wood and sand	94% protection against 3,500 LD ₅₀ in guinea pigs
Smallpox	High	Assumed low (10-100) organisms)	7-17 days (average 12)	4 weeks	High to moderate	Very stable	Vaccine protects against large doses in primates
Venezuelan Equine Encephalitis	Low	10-100 organisms	2-6 days	Days to weeks	Low	Relatively unstable	TC 83 protects against 30-500 LD ₅₀ in hamsters

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Viral Hemorrhagic Fevers	Moderate	1-10 organisms	4-21 days	Death between 7-16 days	High to moderate depends on agent	Relatively unstable - depends on agent	No vaccine
Botulism	No	0.001 μ g/kg is LD ₅₀ for type A	12 hours -5 days	Death in 24-72 hours; lasts months if not lethal	High without respiratory support	For weeks in nonmoving water and food	3 dose efficacy 100% against 25-250 LD ₅₀ in primates
Staph Enterotoxin B	No	0.03 μ g/person incapacitation	3-12 hours after inhalation	Hours	< 1%	Resistant to freezing	No vaccine
Ricin	No	3-5 μ g/kg is LD ₅₀ in mice	18-24 hours	Days - death within 10-12 days for ingestion	High	Stable	No vaccine
T-2 Mycotoxins	No	Moderate	2-4 hours	Days to months	Moderate	For years at room temperature	No vaccine