

Legionella Pneumophila

General Features

- Weakly gram negative cocco-bacilli that produce filaments.
- Facultative anaerobes.
- Facultative intracellular parasites that are gobbled up by macrophages. This means that once it has been phagocytosed, it inhibits phagosome-lysosome fusion, surviving and replicating intracellularly.
- Survives at temperatures 0-60 C.
- Water organisms, can be transmitted by aerosols from contaminated air conditioning, wet soil, and water droplets. Legionella is NOT contagious disease; NO human-to-human transmission.

Clinical Features

- Host factors: Legionella is more common in old heavy smokers and in immunodeficient people.
- Symptoms include: High fever, dry cough, vomiting, stomach discomfort, diarrhea, headaches, muscle aches, chest pain, shortness of breath, renal failure.
- Legionella can be fatal.

Diagnosis

- Special culture media, blood sputum culture.
- Serological test for specific antibodies.
- PCR.

Treatment

- Antibiotics used with Mycoplasma, Chlamydia, and Legionella must be able to penetrate human cells (e.g. macrolides). Penicillins and aminoglycosides cannot be used.
- NO vaccine.