

Week: 7 BIOS Assignment

Pathogens Chart-Micro Note



Chamberlain University

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Streptococcal Respiratory Diseases: Pharyngitis

Pathogen's name: Streptococcus pyogenes

Distinctive characteristics: gram positive streptococcus (coccus in chains), facultative anaerobe

Type of pathogen: Bacterial

Body system affected: Pharynx (upper respiratory)

Virulence factors: Capsule and slime layer, surface antigens of S.pyogenes mimics host proteins

Signs and symptoms: tonsils are red and swollen with visible white patches/pus on the back of the throat causing a foul breath.

Pathogenesis and epidemiology: transmission of droplets by inhalation when someone coughs

Treatment and prevention: Antibiotics; penicillin and cephalexin. Prevention: good hygiene practices.

Extra notes: diagnosis and culture by beta-hemolytic on blood agar, sensitive to bacitracin, and rapid antigen tests.

Tuberculosis

Pathogen's name: Mycobacterium tuberculosis

Distinctive characteristics: Long thin acid-fast rod, strictly aerobe

Type of pathogen: Bacterial

Body system affected: Respiratory.

Virulence factors: Mycolic acid and waxes (makes organisms resistant to drying and disinfectants)

Signs and symptoms: cough lasting 3 weeks or longer, coughing up blood/sputum, chest pain when breathing or coughing.