Mechanisms of Human Disease
Bacterial Zoonoses
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1. Define Fastidious, Zoonosis
2. Brucellosis
   a. Habitat
   b. Important species
   c. Transmission
   d. Risk Factors
   e. Infection
   f. Clinical Manifestations
   g. Laboratory Identification
      i. Small coccobacillary Gram-negative rod – fine sand
      ii. Requires enriched media to grow
   h. Treatment
      i. Must treat for long time
      ii. Surgical intervention may be necessary
   i. Prevention
3. Tularemia
   a. Vectors
   b. Cases in the US
   c. Area of high endemicity
   d. Risk Factors
   e. Agent of bioterrorism
   f. Pathogenesis
   g. Clinical Manifestations
      i. Ulceroglandular
      ii. Oculoglandular
      iii. Typhoidal infections
      iv. Pneumonia
      v. Glandular adenopathy
      vi. Oropharyngeal
   h. Diagnosis
      i. Laboratory Identification
         i. Small coccobacillary Gram-negative rod – like \textit{Brucella}
         ii. Requires sulphhydryl compounds for growth
4. Pasteurellosis
   a. Vectors
   b. Important species
   c. Clinical infection
      i. Bite Wounds
         1. Severe Infections
      ii. Respiratory Infection
      iii. Systemic Infection
d. Serious Infections
e. Laboratory Identification
   i. Small Gram-negative rods
   ii. Do NOT grow on MacConkey Agar

5. Plague –
   a. Transmission
   b. Important species
   c. Urban Plague
   d. Sylvatic Plague
   e. History
      i. First Pandemic
      ii. Second Pandemic
      iii. Third Pandemic
   f. Plague in the USA
      i. Cases and distribution
   g. Clinical Syndromes
      i. Bubonic Plague
      ii. Septicemic Plague
      iii. Pneumonic Plague
   h. Clinical Diagnosis
      i. Laboratory Identification
         i. Small coccobacillary Gram-negative rod – bi-polar (look like safety pins)

6. Select Agents, Zoonotic Infection, Fastidious Organisms—review table
7. Prevention