

# Lecture 5 quiz



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1. Which type of stain is best used for Legionella pneumophila?

- A. Gram stain
- B. Silver stain
- C. Endospore stain
- D. Acid-fast stain

Answer: Silver stain (B)

Legionella pneumophila is best stained with silver stains.

2. What is the common growth medium for Legionella pneumophila?

- A. Buffered charcoal-yeast extract agar (BCYE)
- B. MacConkey agar
- C. Blood agar
- D. Mannitol salt agar

Answer: Buffered charcoal-yeast extract agar (BCYE) (A)

Legionella pneumophila grows on complex media like BCYE agar.

3. Which of the following tests would Legionella pneumophila most likely be positive for?

- A. Citrate utilization test
- B. Indole test
- C. Tryptophan hydrolysis test
- D. Oxidase test

Answer: Oxidase test (D)

Legionella pneumophila is Oxidase positive.

4. What kind of bacteria are Legionella pneumophila?

- A. Anaerobic Gram-negative bacilli
- B. Anaerobic Gram-positive cocci
- C. Aerobic Gram-positive cocci
- D. Aerobic Gram-negative bacilli

Answer: Aerobic Gram-negative bacilli (D)

Legionella pneumophila is an aerobic Gram-negative bacilli.

5. Which of the following enzymes are typically positive in Legionella pneumophila?

- A. Urease
- B. Lipase
- C. Catalase
- D. Coagulase

Answer: Catalase (C)

Legionella pneumophila is Catalase positive.

6. How is Pontiac fever different from pneumonia?

- A. It requires a different diagnostic test than pneumonia
- B. It does not result in pneumonia
- C. It is caused by a different type of bacteria than pneumonia
- D. It results in pneumonia

Answer: It does not result in pneumonia (B)

Pontiac fever doesn't result in pneumonia, as mentioned in the text.

7. Which type of test is used for the diagnosis of Pontiac fever?

- A. Direct fluorescent antibody test (FAT) of sputum specimen
- B. Chest X-ray
- C. Blood culture test
- D. Electrocardiogram (ECG)

Answer: Direct fluorescent antibody test (FAT) of sputum specimen (A)

The diagnosis of Pontiac fever involves the Direct fluorescent antibody test (FAT) of sputum specimen, as mentioned in the text.

8. How do the cell walls of Chlamydia bacteria resemble gram-negative bacteria?

- A. They contain muramic acid
- B. They are not stained with the Gram stain
- C. They have a thick peptidoglycan layer
- D. They lack Giemsa staining

Answer: They are not stained with the Gram stain (B)

Chlamydia bacteria's cell walls resemble gram-negative bacteria in that they are not stained with the Gram

stain but with Giemsa, as mentioned in the text.

9. What is the special replicative cycle of Chlamydia bacteria?

- A. Forms reticulate and elementary bodies
- B. Endospore formation
- C. Binary fission
- D. Retrograde replication

Answer: Forms reticulate and elementary bodies (A)

Chlamydia bacteria have a special replicative cycle with two forms: reticulate (infective) and elementary (replicative) bodies, as mentioned in the text.

10. Which antibiotic is effective against Chlamydia bacteria?

- A. Fluoroquinolone
- B. Penicillin
- C. Cephalosporin
- D. Macrolide (erythromycin)

Answer: Macrolide (erythromycin) (D)

Macrolide antibiotics like erythromycin are effective against Chlamydia bacteria, as mentioned in the text.

11. What type of disease is Q fever?

- A. Bacterial
- B. Viral
- C. Parasitic
- D. Fungal

Answer: Bacterial (A)

Q fever is caused by the bacterium *Coxiella burnetii*.

12. Which animals serve as reservoirs for Q fever?

- A. Cattle
- B. Birds
- C. Dogs
- D. Cats

Answer: Cattle (A)

Cattle are one of the reservoirs for Q fever.

13. What is a common source of human infections with Q fever?

- A. Sheep
- B. Pigs
- C. Goats
- D. Chickens

Answer: Goats (C)

Goats are also a common source of human infections with Q fever, along with cattle.

14. Which of the following diseases is NOT a zoonosis?

- A. Tuberculosis
- B. Toxoplasmosis
- C. Brucellosis
- D. Leptospirosis

Answer: Tuberculosis (A)

Tuberculosis is not a zoonosis; it is mainly caused by *Mycobacterium tuberculosis* in humans.

15. How can Q fever be transmitted to humans?

- A. Inhalation of contaminated dust particles
- B. Mosquito bites
- C. Consumption of contaminated food
- D. Direct contact with infected humans

Answer: Inhalation of contaminated dust particles (A)

Q fever is primarily transmitted to humans through inhalation of contaminated aerosols or dust particles.

16. What is the primary mode of transmission of *Chlamydia pneumoniae*?

- A. Foodborne transmission
- B. Vector-borne transmission
- C. Person-to-person transmission
- D. Waterborne transmission

Answer: Person-to-person transmission (C)

*Chlamydia pneumoniae* is primarily transmitted from person to person by inhalation.

17. Which group is particularly at risk of contracting *Chlamydia pneumoniae*?

- A. Elderly individuals
- B. Children under 5 years old
- C. Teenagers
- D. Middle-aged adults

Answer: Elderly individuals (A)

Chlamydomphila pneumonia is a leading cause of community-acquired pneumonia, especially in elderly individuals.

18. What is the main species that Chlamydomphila pneumonia infects?

- A. Only animals
- B. Both humans and animals
- C. Only bacteria
- D. Only plants

Answer: Both humans and animals (B)

Chlamydomphila pneumonia infects only humans.

19. Which age group is least likely to be affected by Chlamydomphila pneumonia?

- A. Young adults
- B. Middle-aged adults
- C. Infants
- D. Elderly individuals

Answer: Infants (C)

Chlamydomphila pneumonia is a leading cause of community-acquired pneumonia, especially in elderly individuals, indicating that infants are less likely to be affected.

20. In the context of Chlamydomphila pneumonia, what is the term for transmission through contaminated air droplets?

- A. Respiratory transmission
- B. Bloodborne transmission
- C. Fecal-oral transmission
- D. Sexual transmission

Answer: Respiratory transmission (A)

Chlamydomphila pneumonia is transmitted from person to person by inhalation.

21. What clinical presentation should suggest Q fever?

- A. Combination of pneumonia and hepatitis
- B. Combination of hepatitis and rash
- C. Combination of pneumonia and rash
- D. Combination of rash and meningitis

Answer: Combination of pneumonia and hepatitis (A)

The absence of rash differentiates Q fever from most other rickettsial diseases.

22. In which phase antigen is acute Q fever associated with?

- A. Phase II antigen
- B. Phase IV antigen
- C. Phase III antigen
- D. Phase I antigen

Answer: Phase II antigen (A)

Acute Q fever is associated with phase II antigen.

23. What distinguishes the clinical presentation of Q fever from most other rickettsial diseases?

- A. Presence of a rash
- B. Presence of encephalitis
- C. Combination of pneumonia and hepatitis
- D. Joint pain and arthritis

Answer: Presence of a rash (A)

Unlike most other rickettsial diseases, Q fever does not present with a rash.

24. Which symptom is NOT commonly seen in Q fever?

- A. Rash
- B. Hepatitis
- C. Pneumonia
- D. Meningitis

Answer: Rash (A)

Rash is not a common symptom in Q fever, distinguishing it from other rickettsial diseases.

25. What is the significance of the absence of a rash in Q fever diagnosis?

- A. It indicates a lower chance of pneumonia
- B. It suggests a higher likelihood of meningitis
- C. It makes diagnosing Q fever difficult
- D. It confirms the presence of Q fever

Answer: It confirms the presence of Q fever (D)

The absence of rash in Q fever helps in distinguishing it from other rickettsial diseases.