

醫學/中醫 細菌學&真菌學 考古題

Simple Choice

1. An infection following a serious skin burn that is characterized by the production of greenish pus is probably caused by:
A. *Proteus mirabilis* B. *Pseudomonas aeruginosa*
C. *Staphylococcus aureus* D. *Streptococcus pyogenes*
2. The most common cause for subacute bacterial endocarditis is
A. alpha-hemolytic streptococcus B. beta-hemolytic streptococcus
C. staphylococcus D. enterococcus
3. Which of the following bacteria is **the most** frequent cause for bacterial cystitis (膀胱炎)?
A. *Acinetobacter baumannii* B. *Pseudomonas aeruginosa*
C. *Escherichia coli* D. *Moraxella catarrhalis*
4. The progression of impetigo in children involves mainly *Streptococcus pyogenes* and
A. *Erysipelothrix* B. *Listeria* C. *Corynebacterium* D. *Staphylococcus*
5. Which of the following diseases are commonly associated with pathogenic staphylococci?
 1. Folliculitis 2. Osteomyelitis 3. Rheumatic fever
A. 1 and 2 B. 2 and 3 C. 1 and 3 D. 1, 2, and 3
6. Pathogenesis of *Salmonella* Typhi infection involves:
A. lymphatic spread B. penetration of intestinal mucosa C. septicemia D. All of the above
7. Which of the followings requires bacteriophage conversion?
A. The production of diphtheria toxin B. The production of cholera toxin
C. The production of pyogenic toxin D. All of the above
8. The virulence of *S. agalactiae* is closely associated with its:
A. Capsule B. LPS C. cell wall D. C polysaccharide
9. Which of the following infections is **NOT** caused by *Streptococcus pneumoniae*?
A. lobar pneumonia B. otitis media
C. rheumatic fever D. all of the above can result from *S. pneumoniae* infections
10. The complications of *Corynebacterium diphtheriae* infections include:
A. cardiac arrhythmias B. lymphadenitis C. Both the above D. None of the above
11. Which of the followings is **NOT** associated with *Helicobacter pylori* infections?
A. peptic ulcer B. gastric adenocarcinoma
C. MALT B-cell carcinoma D. All of the above are associated with *H. pylori* infections
12. A 55-year old female diabetic with fever (39.5°C) and pleuritic pain came to the emergency room. Her chest X-ray showed a consolidated lesion in the right lower lobe. The production of blood-tinged sputum was also noticed. What is the most possible diagnosis?
A. *Pseudomonas pneumonia* B. *Mycoplasma pneumonia*
C. staphylococcal pneumonia D. *Klebsiella pneumonia*

13. Which of the following is **NOT** a zoonotic infection?
- plaque
 - anthrax
 - erysipeloid caused by *Erysipelothrix* infection
 - All of the above are zoonotic infections
14. Which one does not belong to Nontuberculous Mycobacteria (NTM)
- Mycobacterium kansasii*
 - Mycobacterium chelonae*
 - Mycobacterium avium*
 - Mycobacterium leprae*
15. Skin test reactivity to lepromin will be positive for patients with
- Mycobacterium tuberculosis* infection
 - Tuberculoid form *Mycobacterium leprae* infection
 - Lepromatous form *Mycobacterium leprae* infection
 - Mycobacterium avium* infection
16. Which antibiotic drug is used to treat patients with *Mycobacterium tuberculosis* infection?
- ethambutol
 - isoniazid
 - pyrazinamide
 - all of above
17. Which one is the most often isolated pathogen from human bite wound?
- Kingella kingae*
 - Neisseria gonorrhoeae*
 - Neisseria mucosa*
 - Eikenella corrodens*
18. Which of the following description for *Neisseria gonorrhoeae* and *Neisseria meningitidis* is not correct?
- both can be treated by penicillin
 - both are Gram negative bacteria
 - both are diplococci
 - both are oxidase positive
19. Which description for Lyme disease is not correct?
- Tick-borne disease
 - pathogen is *Treponema pallidum*
 - Antibody detection is useful for Lyme disease
 - Erythema migrans is a symptom for the early localized infection
20. Which test is used for CSF samples and is the confirmation test for Neurosyphilis?
- Venereal disease research laboratory (VDRL) test
 - Rapid plasma reagin (RPR) test
 - Fluorescent treponemal antibody-absorption (FTA-ABS) test
 - Treponema pallidum* particle agglutination (TP-PA) test
21. Which disease is transmitted by louse (體蝨)?
- Rocky mountain spotted fever
 - Scrub typhus
 - Epidemic typhus
 - Endemic typhus

Questions 22-23: A 80-year old man confined to a nursing home awoke with a severe headache and stiff neck. A Gram negative bacillus was identified from the cloudy cerebrospinal fluid (CSF) and a meningitis case was suspected.

22. What is the most likely causative organism of this infection?
- Streptococcus pneumoniae*
 - Listeria monocytogenes*
 - Neisseria meningitidis*
 - Haemophilus influenzae*
23. What is the most important virulence factor of this bacterium?
- LOS
 - Capsule
 - Intracellular pathogen
 - All of the above

Questions 24-25: A Gram negative coccobacillus was identified from a blood sample of suspected endocarditis.

24. What is the most likely causative organism of this infection?

- A. *Streptococcus mutans*
- B. *Capnocytophaga* spp.
- C. *Aggregatibacter actinomycetemcomitans*
- D. *Streptobacillus moniliformis*

25. The infection is acquired mostly through:

- A. Endogenous infection
- B. Exogenous infection
- C. Both A and B are possible

Questions 26-27: A 5-year old girl with severe, intractable cough was brought to hospital. A Gram negative rod was identified and a case of pertussis was suspected.

26. What is the genus of the possible causative organism?

- A. *Brucella*
- B. *Bordetella*
- C. *Borrelia*
- D. *Bartonella*

27. The pertussis toxin produced by this bacterium:

- A. Inactivate the G1 α of host cells
- B. Cause death of the ciliated respiratory cells
- C. Cause ciliostasis (inhibition of cilia movement)
- D. All of the above

Questions 28-30: A 14-week-old boy who has become lethargic and is having trouble breathing was brought to the hospital. He has not had a bowel movement in few days and fails to grab anything.

28. What is the most possible cause based on the nervous system symptoms?

- A. *Lactobacillus* spp.
- B. *Clostridium botulinum*
- C. *Mobiluncus curtisii*.
- D. *Actinomyces* spp.

29. Regarding the toxin produced by this bacterium:

- A. Is an A-B toxin that acts on the neuron in the spinal cord
- B. Can block the release of gamma-aminobutyric acid (GABA)
- C. Can cause paralysis
- D. All of the above are correct

30. What is the major transmission route of this infection?

- A. Aerosol
- B. Contaminated food
- C. Insect bites
- D. From the mother through breast feeding

Questions 31-32: A man in his mid-20 came down with severe diarrhea. He has been on multiple antibiotics for the past few months in an attempt to treat a nasty sinus infection.

31. What is the cause of this infection?

- A. *Bacteroides fragilis*
- B. *Campylobacter jejuni*
- C. *Clostridium difficile*
- D. *Propionibacterium propionicum*

32. What are the function(s) of the toxins in this case?

- A. increase the permeability of the intestinal wall
- B. stimulate cytokine production of the host cells
- C. Both of the above
- C. None of the above

Questions 33-34: A heavy smoker was admitted to the hospital because of breathing difficulties, chest pain, fever and productive cough. Gram stain of the sputum showed neutrophils but no bacteria. Routine bacterial cultures of sputum and blood were negative.

33. What is the most likely causative organism of this infection?

- A. *Streptococcus pneumoniae*
- B. *Listeria monocytogenes*
- C. *Haemophilus influenzae*
- D. *Legionella pneumophila*

34. What is the most important virulence factor in this case?
- this bacterium has capsule
 - this bacterium produces potent exotoxins
 - this bacterium can survive within macrophages
 - All of the above are correct
35. A patient with a ruptured appendix was rushed to the surgery. The foul-smelling pus was drained and submitted for aerobic and anaerobic bacterial culture analysis. Which anaerobic bacterium is responsible for causing the abscess formation?
- Enterococcus faecalis*
 - Clostridium difficile*
 - Bacteroides fragilis*
 - E. coli*
36. A previously healthy 8-year old boy developed a slowly enlarging, swollen axillary lymph node. One week before the onset of the disease, he had suffered a scratch while playing with a kitten. What is the bacterium responsible for this infection?
- Streptobacillus moniliformis*
 - Bartonella quintana*
 - Bartonella henselae*
 - Cardiobacterium* spp.
37. *Francisella tularensis*:
- a zoonotic pathogen
 - humoral immunity is essential for clear the infection by this bacterium
 - infections generally are mild
 - all of the above are correct
38. Which of the following statement is true regarding to polyenes?
- Inhibit ergosterol synthesis
 - Amphotericin B is a polyene drug
 - Ketoconazole is a polyene drug
 - Inhibit glucan synthesis
39. Which one is an important primary fungal pathogen for HIV-infected patients in Southeast Asia?
- Paracoccidioides brasiliensis*
 - Penicillium marneffeii*
 - Blastomyces dermatitidis*
 - Histoplasma capsulatum*
40. Which one of the following *Candida* species and *Candida albicans* are responsible for most of nosocomial blood stream infection?
- Candida glabrata*
 - Candida parapsilosis*
 - Candida tropicalis*
 - Candida krusei*
41. Which one is responsible for Lymphocutaneous sporotrichosis
- Conidiobolus coronatus*
 - Sporothrix schenckii*
 - Candida albicans*
 - Microsporum canis*
42. Which of the following description for mycotoxins is not correct?
- Optimum temperature for biosynthesis is 20°C to 30°C
 - Ochratoxin is a nephrotoxin
 - Aflatoxins is a carcinogen for lung carcinoma
 - Mycotoxicoses are not communicable from person to person