



Respiratory System

Quiz

1) A man comes to the emergency department with a history of fever, shortness of breath, productive cough, and hemoptysis for the past week. He has a history of asthma. Imaging of the chest shows bronchiectasis, and laboratory studies show an elevated total blood eosinophil count. Which of the following pathogens are responsible for this patient's condition?

- A) Actinomyces
- B) Candida albicans
- C) Aspergillus fumigatus
- D) Pneumocystis jirovecii (formerly P carinii)
- E) Mycobacterium tuberculosis

Correct answer =
C) Aspergillus
fumigatus

2) A patient, who had a kidney transplant six months ago, presented to his physician's office with a history of fever, chest pain, cough, and hemoptysis. A biopsy of the lung shows septate hyphae with acute angle branching. The patient has been on several immunosuppressants following his surgery. Which of the following pathogens is the most likely cause of this patient's condition?

- A) Aspergillus fumigatus
- B) Mycobacterium tuberculosis
- C) Pneumocystis jirovecii
- D) Actinomyces
- E) Candida albicans

Correct answer =
A) Aspergillus fumigatus



Respiratory System

3) A 48-year-old man comes to a clinic complaining of fevers, chills, headaches, and cough over the past several weeks. A chest x-ray shows enlarged hilar lymph nodes with focal infiltrates bilaterally. A lymph node biopsy reveals macrophages filled with yeast cells that bud from a narrow base. Which of the following pathogens are responsible for this patient's condition?

Correct answer =
E) Histoplasmosis

- A) Actinomyces
- B) Candida albicans
- C) Aspergillus fumigatus
- D) Pneumocystis jirovecii
- E) Histoplasmosis

4) A 41-year-old man presents to the emergency department with a worsening cough, dyspnea, and fever for the past two days. The patient is HIV positive; the last CD4 count was 180 cells/mm³. His last viral count was 150,000 copies/mL. The patient is poorly compliant with antiviral therapy. Temperature is 39.4 C° (103 F°), pulse is 90/minute, respiratory rate 25/min, blood pressure is 120/70 mmHg, and oxygen saturation is 82% on room air. Physical examination shows diffuse lung crackles on auscultation. Chest X-ray shows bilateral "ground glass" infiltrates. Which is the most likely causative organism for this patient's condition?

Correct answer =
D) Pneumocystis jirovecii

- A) Cytomegalovirus
- B) Mycoplasma pneumoniae
- C) Aspergillus fumigatus
- D) Pneumocystis jirovecii
- E) Mycobacterium tuberculosis



Respiratory System

5) A farmer in Mississippi presents with a chronic cough. Chest radiograph reveals an opaque mass, and biopsy of the lung shows macrophages with multiple yeast forms. Which one of the following diagnoses is most likely?

Correct answer = B. Histoplasmosis

- A) Coccidioidomycosis
- B) Histoplasmosis
- C) Aspergillus fumigatus
- D) Pneumocystis jirovecii
- E) Sporotrichosis

6) Which of the following groups of people are associated with Pneumocystis jirovecii?

Correct answer = A

- A) AIDS/Immunocompromised
- B) Mexican American Culture
- C) African-American
- D) Elderly