The most common type of bronchogenic carcinoma is:

A. metastatic carcinoma
B. adenocarcinoma
C. squamous cell carcinoma
D. small cell undifferentiated carcinoma

Occupational asthma is associated with all except:

A. type I IgE-mediated reactions
B. very minute quantities of chemicals are required to induce the asthma attack
C. occurs after repeated exposure
D. precipitated by cold

A 55 year old male has hemoptysis, a right perihilar mass, and convulsions. He dies of bronchopneumonia and a neoplasm is found in the lung and the brain. Histologically the tumor is most likely:

A. sarcoma
B. squamous cell carcinoma
C. glioblastoma multiforme
D. meningioma
E. oligodendroglioma

Complications of necrotizing bronchopneumonia include all of the following except:

A. chronic bronchitis
B. bronchiectasis
C. organization
D. abscess formation
E. empyema
Pipe fitters have occupational exposure to asbestos and are at increased risk for developing the following, except for:

A. mesothelioma
B. **cirrhosis of the liver**
C. bronchogenic carcinoma
D. interstitial fibrosis
E. pleural effusion

All of the following are associated with diffuse alveolar damage during the first 24 hours except:

A. interstitial and intra-alveolar edema
B. loss of surfactant
C. fibrin exudation
D. atelectasis
E. **organization of fibrinous exudates**

**Causes of chronic cor pulmonale include all of the following except:**

A. chronic obstructive pulmonary disease
B. multiple pulmonary thromboemboli
C. mitral stenosis
D. gross obesity
E. **spontaneous idiopathic pneumothorax**

Epidemiological studies reveal a positive correlation between smoking and cancer of all of the following organs except:

A. oral cavity
B. esophagus
C. lung
D. urinary bladder
E. **skin**

**Typical findings associated with a “classic” case of chronic bronchitis include all except:**

A. poor respiratory drive
B. easily lapse into congestive heart failure
C. large sputum volume
D. markedly increased lung capacity
E. mucous metaplasia of submucosal bronchial glands

Chronic bronchitis is likely to be associated with all except:

A. cor pulmonale
B. dysplasia of respiratory epithelium
C. ankle edema
D. rheumatoid arthritis

A 66 year old Caucasian female non-smoker with a history of adult onset diabetes is hospitalized because of fracture of the right femoral neck. On the third day she becomes dyspneic and diaphoretic and complains of chest pains. She produces a small amount of blood tinged sputum. Her temperature is 100° F and she has a WBC of 10,000/mm^3 (Reference range: WBC = 5,000 — 10,000 /mm^3). The chest x-ray reveals multiple diffuse densities in both lung fields. Your differential diagnoses at this point would include all of the following except:

A. acute bronchopneumonia
B. acute myocardial infarct
C. metastatic carcinoma in the lung
D. pulmonary embolus
E. bronchogenic carcinoma

A 45-year-old Caucasian male with a protuberant abdomen ( = “beer belly”), clad in a black leather motorcycle jacket with “Hell’s Angels” insignia is brought to the emergency room. The patient works in the harbor as an arc welder. The clinical picture consists of rapid onset of severe respiratory insufficiency, tachycardia, cyanosis, severe arterial hypoxemia, pulmonary edema, decreased lung compliance and diffuse alveolar infiltration in chest radiographs. Which diagnosis can you exclude from your list?

A. shock associated with hemorrhagic pancreatitis
B. narcotic overdose
C. metal fume fever
D. anthracosis
E. acute ozone/nitrous oxide injury

An 18-year-old girl comes to the emergency room complaining of twelve hours of chest pain and increasing difficulty in breathing. She is thin, has short stature and appears acutely ill. She is markedly hypoxic. Moist rales and wheezes are audible in both lung fields. She has a temperature of 104° F, WBC = 12,000/mm^3 with 80% PMNS. She had meconium ileus shortly after birth and she
has a long history of recurrent pneumonias. Reference range: WBC = 5,000—10,000/mm(3) Primarily you will treat the patient for:

A. acute pneumonia
B. immotile cilia syndrome
C. pulmonary embolus
D. status asthmaticus
E. myocardial infarct

You are examining microscopic sections of an autopsy case. A representative section of lung shows hyperplasia of bronchial glands, mucous plugs in bronchi, hypertrophy of bronchial smooth muscle, thickened basement membranes and eosinophilic infiltrates. The patient was:

A. an arc welder who died of acute toxic lung injury.
B. a coal miner with anthracosilicosis.
C. a smoker with alpha-1-antitrypsin deficiency.
D. an asthmatic.
E. a premature infant with hyaline membrane disease.

Asbestosis exposure is not associated with:

A. bladder cancer
B. dyspnea (shortness of breath)
C. bronchogenic carcinoma
D. pulmonary hypertension
E. mesothelioma

All of the following statements about chronic obstructive lung disease are true except:

A. Clinical manifestations appear after one third of functioning lung paranchyma is destroyed.
B. Cough, expectoration, and wheezing may be present in various combinations and proportions.
C. Chest radiograph is the only reliable and consistent finding.
D. Begins insidiously.
E. Progressive dyspnea is the most important symptom.

Atopic asthma is associated with all of the following except:

A. ARDS
B. specific allergens
C. leukotriene C(4), D(4) and E(4) mediated bronchoconstriction
D. type I IgE-mediated reactions
E. allergic rhinitis

Complications of rhinitis and sinusitis include:
A. osteomyelitis
B. nasopharyngeal angiofibroma
C. meningioma
D. septum deviation
E. pyogenic granuloma

The source of surfactant is believed to be:
A. alveolar macrophage
B. Clara cell
C. Type I pneumocyte
D. Type II pneumocyte
E. mast cell

All of the following features are commonly associated with chronic bronchitis except:
A. hypertrophy of bronchial mucus glands
B. productive cough
C. severe dyspnea early in the disease
D. increased resistance to air flow
E. frequent infections

Granulomatous lesions in the lung can be seen in:
A. streptococcal pneumonia
B. asbestosis
C. bleomycin induced lung injury
D. hypersensitivity pneumonitis
E. Klebsiella pneumonia
Which of the following is not an essential feature of emphysema?
A. enlarged air spaces
B. infiltration of bronchi by lymphocytes
C. destroyed alveolar septa
D. associated with tobacco smoking
E. imbalance between proteins and antiproteins in the lung

Atopic asthma is associated with all of the following except:
A. specific allergens
B. leukotriene C(4), D(4) and E(4) mediated bronchoconstriction
C. type I IgE-mediated reactions
D. fibrotic pancreas
E. prostaglandin D2/mediated bronchoconstriction

Laryngeal papillomatosis is generally thought to be caused by:
A. mycobacterium tuberculosis
B. human papilloma virus
C. herpes simplex, Type 1
D. candida albicans
E. smoking

The characteristic inflammatory cell observed in H and E slides of bronchial asthma is:
A. neutrophils
B. eosinophils
C. histiocytes
D. lymphocytes
E. basophils (mast cells)

Features of reactivation tuberculosis (secondary tuberculosis) include all of the following except:
A. apical location
B. Langhans giant cells are always absent
C. arises in a previously sensitized individual
D. most patients are adults
**E. fibrocaseous tissue response**

**Which of the following is least likely to produce an interstitial inflammatory response in lung?**

A. paraquat poisoning  
B. Mycoplasma pneumonie  
C. *Staphylococcus aureus*  
D. adenovirus  
E. Pneumocystis carinii

**A premature female infant born to a diabetic mother breathes well at birth but 45 minutes later she becomes dyspneic and cyanotic. Progressive respiratory distress terminates in death 60 hours later. At autopsy the lungs are firm, dark red and relatively airless. The most diagnostic histological features in the lungs are:**

A. chronic bronchitis  
B. hyaline membranes and atelectasis  
C. granulomatous inflammation and giant cells  
D. tenacious mucus and bronchiectasis  
E. malignant cells and bronchopneumonia

**Which of the following is not associated with pulmonary embolism:**

A. dyspnea  
B. cyanosis  
C. sudden death  
D. aortic aneurysm

**Which ONE of the following is the most desirable outcome of bacterial pneumonia?**

A. resolution  
B. organization  
C. granulation  
D. carnification

**Vacuous gland hyperplasia of the bronchi is most characteristic of which of the following:**

A. adenocarcinoma of lung  
B. chronic bronchitis
C. pneumocystis carinii pneumonia
D. lobar pneumonia
E. pulmonary tuberculosis

A mother brings her previously healthy three year old boy to the clinic with a chronic cough present for two months and blood streaks in sputum for one day. A chest x-ray reveals a diffuse increased density in the right lower lung lobe. A bronchogram shows dilatation of the distal bronchial tree of the right lower lobe. The most likely diagnosis is:

A. primary tuberculosis
B. status asthmaticus
C. cystic fibrosis
D. foreign body in bronchus
E. bronchogenic carcinoma

The least severe pulmonary fibrosis is usually found in which of the following dust diseases?

A. anthracosis
B. silicosis
C. berylliosis
D. asbestosis
E. anthracosilicosis

The single most characteristic feature of bronchiectasis is:

A. excess mucus secretion
B. immotile cilia
C. dilatation of bronchi
D. alpha-1-antitrypsin deficiency
E. hypoplasia of bronchial glands

A premature infant breathes well at birth, but after 45 minutes develops progressive respiratory distress leading to death two days later. Which of the following is most likely?

A. collapsed distal alveoli, open alveolar ducts, hyaline membranes in air spaces.
B. Ghon complex
C. primary atypical pneumonia
D. pneumocystosis
E. cytomegalic inclusion disease

Morphologic features of chronic bronchitis include all of the following except

A. loss of cilia
B. enlarged submucosal glands
C. peribronchial fibrosis
D. disappearance of goblet cells
E. inflammatory cells in the bronchial mucosa

Which of the following is most common in the lung?

A. adenocarcinoma
B. squamous carcinoma
C. metastatic neoplasm
D. hamartoma
E. malignant melanoma

Blood in the sputum is associated with all of the following except:

A. bronchiectasis
B. heart failure
C. Kartagener’s syndrome
D. pulmonary thromboembolism
E. bronchial asthma

Incidence of this lung tumor is rising for both men and women in the U.S. It is the most common histologic type in women. The tumor characteristically forms hard, gray or white mass in the periphery of the lung and is covered by fibrotic, puckered pleura. The tumor typically elicits a desmoplastic (fibrotic) response. In one of the subtypes chest radiograph may not show a mass, but pneumonia-like infiltrates. Under the light microscope you expect to see:

A. intercellular bridges
B. small, nonadhesive tumor cells with indistinct cytoplasm and dense hyperchromatic nuclei
C. abnormal gland formation
D. keratin pearls
E. distinct cross-striations
A premature female infant, born to a diabetic mother, breathes well at birth but 45 minutes later she becomes dyspneic and cyanotic. Progressive respiratory distress terminates in death 60 hours later. At autopsy the lungs are firm, dark red and relatively airless. The name of the disease in this infant is:

A. perinatal tuberculosis  
B. congenital syphilis  
C. cystic fibrosis  
D. hyaline membrane disease  
E. bronchial asthma

The earliest feature of chronic bronchitis is:

A. enlargement of alveolar ducts and respiratory bronchioles  
B. hypoxia  
C. Charcot-Leyden crystals in the pulmonary interstitium  
D. hypertrophy of the submucosal glands  
E. loss of surfactant

A premature female infant, born to a drug abuser mother, breathes well at birth, but two hours later becomes dyspneic and cyanotic. The infant develops severe respiratory failure and dies 72 hours later. The most prominent macroscopic lung finding is:

A. hyperinflated lungs  
B. honeycombing  
C. firm, dark red and relatively airless lungs  
D. emphysematous blebs  
E. edema

Obstructive pulmonary disease is characterized by all except:

A. increase in resistance to air flow  
B. limitation of maximal expiratory flow rates during forced expiration  
C. airway narrowing  
D. decreased anterio-posterior diameter of the rib cage  
E. increased anterio-posterior diameter of the rib cage

All the following are true about primary progressive pulmonary tuberculosis, except:
A. it is a complication of primary infection.
B. it may spread endobronchially.
C. it is likely to be fibrocaseous.
D. it reflects poor cell mediated immunity.

The most common neoplasm in the lung is:
A. adenocarcinoma
B. squamous carcinoma
C. metastatic carcinoma
D. undifferentiated small cell carcinoma
E. bronchial carcinoid

Which one of the following does not cause granulomatous inflammation?
A. mycobacterium tuberculosis
B. hemophilus influenzae
C. coccidioides immitis
D. histoplasma capsulatum
E. sarcoidosis

All of the following are associated with diffuse acute alveolar damage during the first 24 hours except:
A. interstitial and intra-alveolar edema
B. microthrombi in alveolar capillaries
C. fibrosis
D. atelectasis
E. fibrin exudation

A typical clinical setting for pulmonary thromboembolism may include the following except:
A. post-operative patient
B. patient with acute lobar pneumonia
C. chronically ill bed-ridden patient
D. post-partum patient
Chronic obstructive pulmonary disease includes all of the following except:

A. emphysema
B. chronic bronchitis
C. usual interstitial pneumonitis
D. bronchial asthma
E. bronchiectasis

The morphologic features of diffuse interstitial (restrictive) diseases of the lung include:

A. alveolar filling by lymphocytes
B. atrophy of bronchiolar epithelium
C. proliferation of type I pneumocytes
D. honeycombing
E. proliferation of alveolar capillaries

In the early stage of acute bronchopneumonia with serofibrinous pleuritis you expect to see:

A. fibrous adhesions of the pleura
B. alveolar filling by lymphocytes
C. type II cell hyperplasia
D. caseous necrosis of the pleura
E. fibrin in the alveoli

A 5-year-old boy aspirated a peanut into his right lower lobe bronchus 1 month ago. He presents with low grade fever and cough productive of a yellow-flecked sputum. Chest x-ray shows increased density in the right lower lobe. The peanut is removed by a bronchoscopist. This patient is at increased risk of developing clinically significant:

A. bronchiectasis
B. pulmonary tuberculosis
C. pulmonary infarction
D. bronchogenic carcinoma
E. bronchial asthma

Which of the following are essential features of emphysema?
A. enlarged air spaces

**B. infiltration of bronchi by lymphocytes**

C. ruptured alveolar septa

D. hyperplasia of terminal bronchiolar epithelium

E. all of the above

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A 35-year-old female complains of episodic cutaneous flushing and chronic diarrhea. Auscultation reveals tricuspid insufficiency and pulmonic stenosis. Her neck veins are distended and the liver is enlarged. A liver biopsy most likely reveals:

A. metastatic carcinoid

B. sarcoid

C. tuberculosis

D. fatty liver

E. hepatocarcinoma

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A 45-year-old male complains of shortness of breath. His sputum is blood streaked, and there are fresh red blood cells in his urine. A chest film reveals multiple spherical densities throughout both lungfields. One of these densities is biopsied by fine needle aspiration and reveals carcinoma composed of “clear cells”. The most likely diagnosis:

A. bronchogenic carcinoma

B. seminoma

**C. renal cell carcinoma**

D. transitional cell carcinoma

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**Diffuse alveolar damage is associated with all of the following, except:**

A. alveolar edema

**B. goblet cell hyperplasia**

C. atelectasis

D. organization of fibrinous exudate

E. loss of surfactant