Case Study- aspiration pneumonia

Scenario

A 35 year alcoholic male with a history of seizures is admitted with a three-week history of fever, generalized weakness, poor appetite, and cough productive of green, foul-smelling sputum. On physical examination, the temperature is 100.3 degrees P. pulse is 96 beats per minute, respiratory rate is 20 breaths per minute, and BP is 120/80 mm. There are many missing teeth with gingivitis and dental caries. He has rales and decreased breath sounds over the right base. A chest x-ray shows consolidation in the superior segment of the right lower lobe.

1. What type of infection is suggested by his foul-smelling sputum?

2. What organisms could be responsible for this patient's pneumonia?

3. Does a normal person aspirate?

4. What are the clinical signs and systems for this disease process?

5. What are the other predisposing factors for aspiration? What factor/s predisposed this patient to aspirate?

6. What diagnostic test do you think the HCP would order? Why?

7. What are the common sites for aspiration lung abscess and why?

8. Are there other routes besides aspiration by which anaerobes can reach lungs?

9. What would treatment be?

10. What would you include inpatient teaching? Discharge planning?

11. 2 nursing diagnosis with interventions and goals.

12. Dietary considerations.

Case Study- Community Acquired pneumonia (CAP)

Scenario

The sister of C.K. called to report her 71-year-old brother came down with a fever 2 days ago. Now he has shaking chills, productive cough, and inability to lie down to sleep because "he cannot stop coughing." C.K. is examined at the hospital's primary care clinic, is diagnosed (Dx) with community-acquired pneumonia (CAP), and is admitted to your floor. The intern is busy and asks you to complete your routine admission assessment can call her with your findings.

Your assessment findings are as follows: C.K's VS- 154/82, 105, 32, T103, o2 sat 84% on room air. You auscultate decreased breath sounds in the left lower lobe (LLL) anteriorly and posteriorly and hear coarse crackles in the left upper lobe (LUL). His nail beds are dusky on fingers and toes. He has a productive cough of rust-colored sputum and complains of pain in the left side of the chest when he coughs. C.K. seems to be well-nourished and adequately hydrated; he is a lifetime nonsmoker and nondrinker. Past medical history includes CAD, MI x2, with stents x3, Type 2 DM, he had never gotten the Pneumovax or flu shot.

1. What would you include in your assessment/ what would you expect to find?
2. How is CAP how is it different from other cases of pneumonia?
3. What causative bacteria of CAP?
4. What diagnostic tests do you think the HCP would order? Why?
5. What are the clinical signs and systems for this disease process?
6. What would treatment be?
7. What would you include inpatient teaching? Discharge planning?
8. What concerns you with these assessment findings? And why.
9. 2 nursing diagnosis, interventions, and goals.
10. Dietary Considerations.
11. What are some complications of CAP?

Case Study- Hospital acquired pneumonia

Scenario

RP is a 68-year-old male who was admitted to the hospital from his long-term care facility after 1 week of dyspnea and cough. He was seen by a staff physician at the long-term care facility and was diagnosed with a COPD exacerbation. He has been prescribed azithromycin but has not improved after 3 days of antibiotics. He has a history of dyslipidemia, COPD, alcoholic cirrhosis, and HTN. He routinely takes Lisinopril, atorvastatin, tiotropium, and fluticasone/salmeterol, and has recently had a heavier reliance on his rescue albuterol inhaler. A review of systems reveals fever, chills, cough (sometimes productive), and dyspnea (worse than baseline). T 101.2, P 89, R24, B/P140/86, O2 sat 84% on room air.

1. What would you include in your assessment/ what would you expect to find?
2. What is HAP how is it different from other types of pneumonia?
3. What causes it usually?
4. What diagnostic test do you think the HCP would order? Why?
5. What are the clinical signs and systems for this disease process?
6. What would treatment be?
7. What would you include discharge teaching? Discharge planning?
8. 2 nursing diagnoses, interventions, and goals.
9. Dietary considerations.

Case Study- TB

Scenario

You are a public health nurse working at a county immunization and tuberculosis (TB) clinic. B.A. is 61 yr. old female who wishes to obtain a food handler's license and is required to show proof of a negative Mantoux (purified protein derivative (PPD) test before being hired. She came into your clinic 2 days ago, to obtain a PPD test for TB. She has returned to have you evaluate her reaction.

B.A. consumes 3-4 ounces of alcohol per day and has smoked 1.5 packs of cigarettes per day for 40 years. She is a native-born American, has no risk factors according to the CDC guidelines, lives with her daughter, and becomes angry at the suggestion that she might have TB. She admits that her mother had TB when she was a child but says she has never tested positive. She says, I feel just fine and I don't think all this is necessary."

1. What is TB and what microorganism causes it, main organ it affects? (Why does it like this organ?)

2. What is the route of transmission for TB? Is it easily transmitted?

3. Who is at high risk for developing it?

4. What if the patient has had the BCG vaccine? What will it do to the results of the PPD?

5. What is the preferred method for TB screening? How would you know if it is a positive or negative result?

6. What are the clinical presentations for TB? (Signs and Symptoms)- Late and Early disease.

7. What additional information would you want to obtain form B.A. before interpreting her skin test results as positive or negative?

8. What diagnostic studies would be ordered and why?

9. How do you determine whether the test is positive or negative? What is considered positive in a healthy adult? What about immunocompromised?

10. You measure and note that the area of erythema measured 30mm in diameter and are of induration is measures 16mm in diameter. Determine whether B.A. has active TB?

11. What does a positive PPD result mean?

12. How would you determine whether B.A. has active T.B?

13. What is multidrug-resistant TB? How can you ensure pt. takes Rx?

14. When are they no longer considered contagious?

15. Do all TB patients require hospitalization? If in the hospital what kind of isolation? What kind of mask has to be worn? Who wears a mask is the patient is out of their hospital room?

16. Do we have to notify the health department when a patient tests positive for TB? What are they going to do for the patient and community?

17. What patient teaching should you include? Discharge planning

18. What would B.A, have to have from now on instead of a skin test?

19. 2 nursing diagnosis, interventions, and goals.

20. Dietary considerations?

Case Study- Chronic bronchitis

Scenario

Mr. O'Connor is a 62-year-old auto mechanic who presents with progressive shortness of breath for the past several days. His problem began four days ago when "I got a cold." His "cold" consisted of a sore throat, rhinorrhea, and myalgia. His job forces him to work in the cold and damp air. At first, he just felt tired, but later he developed a cough and shortness of breath. Initially, the cough was dry, but within 24 hours of onset, it produced abundant yellow-green sputum. He states, "I cough up a cup of this stuff every day." He didn't think much of the cough because he continually coughs during the winter of each year. His wife states that he "hacks and spits up" every morning when he gets up from the bed. The shortness of breath has worsened so that he can hardly speak now. He also has pain in the left side of his chest when he coughs. He becomes very tired after walking up a flight of stairs or during a coughing spell. He denies hemoptysis, night sweats, chills, and paroxysmal nocturnal dyspnea. However, he does complain of swelling of his ankles: "I've had this for more than a year."Mr. O'Connor has been treated for high blood pressure, cases of pneumonia and infections of his hands. He has been treated for similar episodes of coughing and shortness of breath during the past two years. Once he was hospitalized because "I was drinking too much and my pancreas acted up." A previous doctor gave him nitroglycerin. He smokes 1-2 packs of cigarettes per day and has done so for the past 35 years.

PHYSICAL EXAMINATION: The patient appears much older than he stated age of 62 years. He is a stocky man who appears haggard, tired, and anxious. He speaks with difficulty, quickly becoming breathless. There is cyanosis which intensifies during coughing spells. Blood pressure is 146/82 mmHg. The apical heart rate is 96/minute and regular. Respiratory rate is 28/minute. The temperature is 100.2 F.

1. What is Chronic Bronchitis explain patho?

2. Who is at risk of developing?

3. What is the clinical presentation for Chronic Bronchitis?

4. What would you expect to find on assessment?

5. What diagnostic test would be done? What does this test tell you?

6. What would you expect treatment to consist of?

7. What patient teaching you teach pt.? Name at least 3

8. What do you think brought him to see HCP?

9. What are the early and late symptoms of hypoxia?

10. Where are the best places to check for cyanosis?

11. What is a symptom of chronic hypoxia?

12. 2 nursing dx with interventions, and goals.

13. Dietary considerations?

Case Study- COPD

Scenario:

S.W., a 50-year-old Caucasian man, comes to the emergency department with worsening dyspnea, fever, cough, and increased purulent sputum production. He is accompanied by his

sister, who says John has been experiencing shortness of breath; feeling fatigued and has not been thinking clearly. His sister states that John has had a cold for the past three days, which he tried to manage with Tylenol. According to past medical history, John has been a smoker for 30 years and has quit one year ago when he was diagnosed with chronic obstructive pulmonary disease. He has no other medical conditions and no known allergies.

Upon physical examination, the nurse notes John's vital signs are:

Blood pressure - 130/84

Respiratory rate - 28/min

Heart rate - 110/min

Oxygen saturation - 87%

Temperature – 100.5

The client is using accessory muscles to breathe, has audible expiratory wheezing and inspiratory crackles, and diminished breath sounds in lower lobes upon auscultation.

1. What is emphysema explain patho?

2. Who is at risk of developing?

3. What is the clinical presentation for emphysema?

4. What would you expect to find on an assessment?

5. What diagnostic test would be done? What does this test tell you?

6. What would you expect treatment to consist of?

7. What patient teaching do you teach pt? Name at least 3

8. Discharge planning. Include diet consideration, ADL

9. What about 02 therapy and these patients?

10. What do you think brought S.W. to ER?

11. 2 nursing dx with intervention and goals.

12. Dietary considerations?

Case Study- Sleep apnea-OSA

Scenario

S.R. is a 69 yr. old man who owns his own business. The stress of overseeing his employees, meeting deadlines, and carrying our negotiations has led to poor sleep habits. He sleeps 3-4 hours a night. He keeps himself going by drinking 2 quarts of coffee and smoking 3-4 packs of

cigarettes per day. He weighs 280 pounds and does not use alcohol. His wife complains that his snoring has become difficult to live with.

After interviewing S.R., you report the following information the provider: BP 164/90, P 92, R18, and O2 sat 90% on room air. S.R is under considerable stress, has gained 50 pounds over the past year, and has an hx of tobacco and caffeine abuse. He complains of difficulty staying awake, wakes up with headaches most mornings, and midmorning somnolence. He is depressed and irritable most of the time and reports difficulty concentrating and learning new things. He has been involved in 3 auto accidents in the past year.

Your examination is normal except for multiple bruises over the right ribcage. You inquire about the bruises, and S.R. reports that his wife jabs him with her elbow several times every night, in her defense, the wife states, "Well, he stops breathing and I get worried, so I jab him to make him start breathing again. If I don't jab him, I find myself listening for his next breath, and I can't go to sleep." You suspect sleep apnea.

1. What is sleep apnea (OSA)?
2. Who is at risk for developing OSA?
3. What are the clinical presentations for OSA?
4. Identify OSA and explain the pathology of it.
5. What are some complications OSA causes?
6. What are the signs and symptoms of OSA that S.R has?
7. What diagnostic test would be done? What does this tell you?
8. What patient teaching would be important for you to teach to S.R.?
9. What are the treatment options for OSA? Describe them.
10. Do you think these might affect his self-esteem?
11. 2 nursing diagnoses with interventions and goals.
12. Dietary considerations.