

CHIEF COMPLAINT: Cough and fever for four days

HISTORY: M.R. is a 68 year old man who developed a harsh, productive cough four days prior to being seen by a physician. The sputum is thick and yellow with streaks of blood. He developed a fever, shaking, chills and malaise along with the cough. One day ago he developed pain in his right chest that intensifies with inspiration. The patient lost 15 lbs. over the past few months but claims he did not lose his appetite. "I just thought I had the flu." Past history reveals that he had a chronic smoker's cough for "10 or 15 years" which he describes as being mild, non-productive and occurring most often in the early morning. He smoked 2 packs of cigarettes per day for the past 50 years. The patient is a retired truck driver who has been treated for mild hypertension, bronchitis, appendicitis (as a young adult), hemorrhoids and a fractured femur and splenic injury (motorcycle accident).

PHYSICAL EXAMINATION: The patient is an elderly man who appears tired haggard and underweight. His complexion is sallow. He coughs continuously. Sitting in a chair, he leans to his right side, holding his right chest with his left arm. Vital signs are as follows: blood pressure 152/90, apical heart rate 112/minute and regular, respiratory rate 24/minute and somewhat labored, temperature 102.6F. Both lungs are resonant by percussion with one exception: the right mid-anterior and right mid-lateral lung fields are dull. Auscultation reveals bilateral diminished vesicular breath sounds. Bronchial breath sounds, rhonchi and late inspiratory crackles are heard in the area of the right mid-anterior and right mid-lateral lung fields. The remainder of the lung fields is clear. Percussion and auscultation of the heart reveals no significant abnormality. Examination of the fingers shows clubbing.

LABORATORY: WBC 17,000/mm³; neutrophils 70%, bands 15%, lymphocytes 15%.

1. Identify the problems from the history.

Hx of chronic cough, current productive cough with thick, yellow mucous & hemoptysis. Chest pain, weight loss (15 lbs), chills, fever, malaise, shaking. Hx of smoking (100 pack years), mild hypertension, bronchitis, appendicitis, hemorrhoids, fractured femur & splenic injury.

2. Identify and explain the significance of physical findings.

Underweight, increased HR, increased & labored RR, fever (102.6F). Clubbed fingers, right middle lobe lung abnormalities.

3. Review the lab findings. Are there other labs you'd want to see?

CBC with differential, BMP, ABGs.

What diagnostic studies would you anticipate M.H. to have? What is the likely diagnosis?

Chest xray, chest CT, bronchoscopy, sputum cytology.

Dx: Pneumonia in right middle lobe and likely some form of lung cancer.

4. What do you understand by the terms "hospital acquired" and "community acquired" pneumonia? Which type of pneumonia does M.R. have?

Hospital acquired pneumonia occurs after being admitted to the hospital while community acquired pneumonia is developed in the community/outpatient setting and is generally caused by bacterial infection. M.R. has community acquired pneumonia.

5. What organisms are likely to be causing his pneumonia? What medications would you expect to administer to M.H.?

Bacteria, fungi and viruses can cause pneumonia (streptococcus pneumoniae is most common organism). With a bacterial pneumonia infection, antibiotics would be the likely treatment. With viral pneumonia, antivirals could be a possible treatment method.

6. List the various host factors, or conditions which predispose a patient to developing pneumonia. What host factors may have predisposed M.R. to pneumonia?

Smoking, asthma, chronic lung infections, immunocompromised individuals (HIV, diabetes, cancer), surgical history, sedentary lifestyle.

M.R. has a hx of smoking, chronic cough, bronchitis. He is also 68 and lived a sedentary lifestyle.

7. What nursing diagnoses do you feel are most appropriate for M. R.?

Impaired gas exchanged, imbalanced nutrition, infection, ineffective airway clearance, acute pain, ineffective breathing pattern, sedentary lifestyle, fatigue, deficient knowledge.

8. What nursing interventions would you anticipate utilizing in his care?

Elevate HOB, cough and deep breath, supplemental O2, incentive spirometer, increase hydration, get him moving as much as possible.