Homework 1

Case study

- Terri Barber is a 32-year old, white female admitted to the hospital with a 5-day history of fever, dyspnea, productive cough, and right sided pleuritic chest pain. The patient denies chills, vomiting, headache, or rashes. She states she had pneumonia twice in the past 3 years which were treated outpatient with antibiotics. A tuberculin skin test was negative when it was evaluated during the last episode of pneumonia.
- States her overall health has been poor for the past 4 months with fatigue, mild anorexia with a 17-pound unintentional weight loss, and occasional night sweats. She denies exposure to tuberculosis or other unusual infections. She has seasonal allergies to pollen which have improved since moving to Florida. She works as an accountant and denies any recent travel or toxin exposure. She smoked about 1 pack per week while in college, but has since quit smoking. She denies illicit drug use and drinks about 4-6 alcoholic drinks per month at "happy hour".
- She reports 7 sexual partners in her lifetime and frequent, unprotected, vaginal intercourse with each one. She is on oral contraceptives and has never been pregnant. She is not on any other prescription medications. She reports a long history of recurrent vaginal yeast infections. She denies any personal history of chronic lung disease, heart disease, and other hospitalizations. Her family history is significant for hypertension and breast cancer.

Physical assessment and diagnostic test results

- General, neuromuscular: Thin, ill-appearing female who is alert, oriented, cooperative, and concerned. Full range of motion in all extremities with strength 4/5.
- Vital signs: Temperature = 101.7° Fahrenheit (oral); heart rate = 124 beats/min, sinus tachycardia; respiratory rate = 28 breaths/min, slightly labored; blood pressure = 117/70 mmHg; oxygen saturation = 89% on room air; pain = 4/10 (right chest).
- Head, neck: Seborrhea of the nose, cheeks, and scalp. Pupils equal, round, reactive to light and accommodation. Posterior pharynx erythematous and edematous with thick, creamy exudate on the soft palate and tongue. Palpable cervical lymphadenopathy. Thyroid non-palpable.
- Cardiopulmonary: Bilateral equal expansion with a cough productive of a small amount of thick, green sputum. Right lower lung lobe has dullness to percussion, increased tactile fremitus, inspiratory crackles, and egophony. S1 and S2 heard, with no abnormal heart sounds. Extremities warm, pink, pulses 2+, capillary refill <2 seconds, and no pedal edema.
- Abdomen, genitourinary; Soft, non-tender, non-distended abdomen with normoactive bowel sounds. Bilateral palpable inguinal lymphadenopathy. Erythema and mild excoriation of perineum and thick, white vaginal discharge noted. Voided 300 mL of clear, yellow urine.
- Serum results: White blood cell count = 9,000 cells/mcL (normal 3,500-10,500 cells/mcL); polymorphonuclear neutrophils (PMN) = 90% (normal 40-80%); hemoglobin = 12.0 gm/dL (normal 12.0-15.5 mg/dL; hematocrit = 37% (normal 35-45%); platelets = 190,000 platelets/mcL (normal 150,000-450,000 platelets/mcL), CD4+ helper T-cell count = 300 cells/mcL (normal = 500-1500 cell/mcL), and HIV enzyme-linked immunosorbent assay (ELISA) positive. Serum chemistry results within normal ranges.
- Other results: Sputum culture positive for numerous PMNs and *Streptococcus pneumoniae.* Oral and vaginal smear potassium hydroxide (KOH) test positive for yeast. Pap smear reveals normal cervical cells. Chest x-ray positive for right lower lobe infiltrate.

To answer questions 1-3, use the scenario above

1. Identify the likely disorder, the underlying pathophysiology (i.e., cellular and tissue changes), and relate the changes to abnormal findings to support your interpretation. (20 points) *Hint: We are in the hematologic and immune systems ☺ !*

2. Identify all nursing diagnoses labels (just the label!) that apply to this patient (e.g., impaired swallowing). Identify the priority (#1) nursing diagnosis label; and for the (#1) nursing diagnosis label, explain the nursing interventions to address the identified problem. Provide evidence-based rationale to explain the need and/or benefit of each intervention. For interventions, include what the nurse should "monitor/assess", "do", and "teach" to the client. (20 points)

3. Describe 2 medical therapies used to treat the disorder and explain their specific mechanism of action and intended impact at the cellular and/or tissue level. (15 points)

To answer questions 4-5, choose ONE disorder from this week's reading

4. For the chosen disorder, identify the disorder and describe the impact on the population in the United States including incidence, prevalence, costs, morbidity, mortality, and/or other appropriate issues. Be sure to identify the disorder, the population associated with the data, and the year(s) of data. (15 points)

5. For the chosen disorder, locate recommendations in a nursing journal article or professional nursing organization. Provide a brief summary of the information and specific recommendations for nursing actions to improve care for patients. (15 points) *Hint: To increase the likelihood of locating a nursing journal or organization, look for some form of the word "nurse" in the journal or organizational name!*

Scholarly Writing: Use correct spelling, grammar, sentence structure, formatting, professional terms, title page, paraphrasing, citations, and references. Sources current (<5 years old) and professional (15 points)