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**PA Portfolio 2** **Rotation 6**

# OSCE Case #1

## Case Description

58-year-old man with a PMHx of T2DM and COPD with a 30 pack-year
presents to the outpatient clinic complaining of productive cough x 4 days. Phlegm described as yellowish green, thick and anywhere from a teaspoon to a tablespoon in quantity. Patient also endorses shortness of breath, right side chest pain when breathing in and fever. Last oral temperature last night read 101.7F. He endorses progressive worsening despite taking Dayquil and Nyquil. Denies hemoptysis, palpitations, recent travel, sick contacts, rhinorrhea, sore throat, ear pain, changes in vision, leg swelling.

- **Chief Complaint:** "I have a cough" x 4 days
- **History of Present Illness:**
    - Cough: productive with yellow-green sputum, worsening over 4 days
    - Fever: subjective fevers and chills at home; measured 101.7F last night
    - Dyspnea: progressive, now present at rest; worse with exertion
    - Right-sided pleuritic chest pain, sharp, worsens with deep inspiration
    - Mild nausea, decreased appetite; no vomiting or diarrhea
    - Denies hemoptysis, leg swelling, or recent travel
- **PMHx:** Type 2 diabetes mellitus, COPD
- **PSHx:** No past surgeries or prior hospitalizations
- **Medications:** Metformin 1000 mg BID, albuterol inhaler PRN
- **Immunization History:** Has not received pneumococcal vaccine. COVID-19 vaccination (2020, 2022), Influenza vaccine (01/2026)
- **Allergies:** NKDA/NKFA
- **Social History:** Current smoker (30 pack-year history), occasional alcohol (2–3 beers/week), no illicit drug use. Works as a warehouse manager. Lives alone, no pets. No recent travel. No sick contacts.

- **Family History:** Father died of lung cancer at age 72. Mother is alive, has HTN

**Physical Examination Findings**

- **Vitals:** T 101.84F, HR 108 bpm, RR 24/min, BP 128/78 mmHg, $SpO_2$ 91% on room air
- **General:** Ill-appearing, diaphoretic, speaking in short sentences
- **HEENT:** Dry mucous membranes, no pharyngeal erythema or exudate
- **Neck:** Supple, no lymphadenopathy, no JVD
- **Lungs:** Decreased breath sounds at the right lower lobe with dullness to percussion, +egophony and +rales over right lower lung field. Left lung CTA.
- **Cardiovascular:** Tachycardic, regular rhythm, no murmurs, rubs, or gallops
- **Abdomen:** Soft, non-tender, non-distended, normoactive bowel sounds
- **Extremities:** No edema, no calf tenderness, capillary refill < 2 seconds
- **Skin:** Warm and dry, no rashes

**Labs and Imaging**

**CBC** WBC 16.2 (elevated), Hgb 14.1 g/dL**,** rest of CBC WNL

**BMP** Na+ 13.7, Cr 1.0, Glucose 188, Procalcitonin 2.4

CRP 142

Lactate 1.8

**ABG** pH 7.46 / PaCO2 32/ PaO2 58

**Blood cultures** pending x 2

**Sputum gram stain** Gram + diplococci >25 WBC <10 squamous epithelial cells

**COVID-19** negative

**CXR** Right lower lobe consolidation with air bronchograms

**EKG:** Normal sinus rhythm, HR 116

**Differential Diagnosis**

- Community Acquired Pneumonia
- Acute COPD exacerbation
- Pulmonary Embolism

- Lung abscess
- TB

**Treatment Plan**

Admitted to hospital

Oxygen therapy

Empiric Antibiotics

- Ceftriaxone 1-2 g IV daily plus azithromycin 500 mg IV/PO daily

IV fluids

Repeat chest x ray in 6-8 weeks to confirm resolution

**Counseling**

- Diagnosis explanation: Explain that the patient has a bacterial lung infection in the right lower portion of their lung, which is causing the fever, cough, and shortness of breath.
- **Treatment expectations:** Antibiotics will be started through an IV and switched to pills once improvement is seen. Fever is expected to resolve within 48–72 hours. cough may persist for several weeks even after successful treatment.
- **Smoking cessation:** Discuss with the patient that smoking increases the risk of pneumonia, worsens COPD, and increases the chances of developing lung cancer. Offer pharmacologic therapy such as varenicline and offer a smoking cessation program, as well as PCP f/u.
- **Vaccination:** PCV20 vaccine is recommended for all adults ≥ 65 years and for adults 19–64 with underlying conditions such as COPD and diabetes. Counsel the patient on the importance of administering the vaccine.
- **Return precautions:** Instruct the patient to go to the ER/seek emergent care if they begin experiencing worsening SOB, fever, chills, cough producing purulent sputum, chest pain, nausea, vomiting, diarrhea, and/or confusion.
- **Diabetes management:** Discuss the need to monitor blood sugar levels as they can increase with acute illness.
- **Follow-up:** 1–2 weeks post-discharge f/u and repeat CXR in 6–8 weeks to check for infection resolution