CASE 5: CAP (Community Acquired Pneumonia)

History

ID: Mohamed Kaleem, 68 y/o male. (he/him)

CC: Persistent productive cough and fever for 5 days.

HPI: Mr. Kaleem, a 68-year-old male, presented to the ED with a 5-day history of productive cough, high-grade fever, malaise and dyspnea on exertion. He reported that the cough was initially dry but progressively became productive with yellow-green sputum. He also reports occasional pleuritic chest pain on the right side which is exacerbated with deep breaths and excretion. He denied any hemoptysis.
Mr. Kaleem has a significant PMHx of COPD for which he uses inhalers PRN. He has a 30-pack-year tobacco smoking history but quit smoking 5 years ago. There is a FHx of CV disease; his father had an MI at 70 y/o, and his mother has HTN. Mr. Kaleem denies any recent travel, sick contacts, or known exposure to tuberculosis. He has not had any pneumococcal vaccinations.

Physical Exam

Vitals:
Temp: *Febrile*, HR: *Tachycardic*, BP**:** *Normotensive*, RR: *Tachypneic*, O2 Sat: Mild *Hypoxemia*

Notable Findings on Exam:
O/E: Patient appears in acute respiratory distress and is diaphoretic.
Respiratory: Decreased breath sounds in the right lower lung with dullness to percussion. Coarse crackles heard over the right lower lobe. No wheezing.
Cardiovascular: Regular rate and rhythm. No murmurs, rubs, or gallops.

Laboratory Findings

CBC

Test	Value	
Hb	Normal	
WBC	HIGH	- *Leukocytosis*
Lymphocytes	Normal	
Monocytes	HIGH	- *Mild monocytosis*
Neutrophils	HIGH	- *Neutrophilia*
Eosinophils	Normal	
Basophils	Normal	
Platelets	Normal	

Sputum C&S Report: *Streptococcus pneumoniae* identified. Susceptible to penicillin.
Chest X-Ray Report: Consolidation in the right lower lobe. No pleural effusion or pneumothorax.

Supplementary Discussion Points

- Cultural differences – see also Modules 1 and 6
- Pneumonia Treatment: CRB-65 Score, Antibiotic Therapy
- Prevention: Pneumococcal & Influenza vaccinations, smoking & alcohol cessation
- Discussion of risk and screening for Lung Cancer [Canadian Cancer Society]
- COPD Inhaler Terminology: ICS, beta agonists (LABA, SABA), anticholinergics (SAMA, LAMA)
- Canadian COPD Management Guidelines [Canadian Thoracic Society Guidelines]

CASE 5 GLOSSARY: CAP (Community Acquired Pneumonia)

Key Themes: *Respirology, Emergency Medicine, Lab Results, Substance Use*

COPD	Chronic Obstructive Pulmonary Disease	Influenza
CV	Cardiovascular	Leukocytosis
MI	Myocardial Infarction	Lung Cancer
HTN	Hypertension	Lymphocytes
C&S	Culture & Sensitivity	Malaise
NP	Nasopharyngeal	Monocytes
ICS	Inhaled Corticosteroids	Monocytosis
SABA	Short Acting Beta Agonist	Murmurs
LABA	Long Acting Beta Agonist	Neutrophilia
SAMA	Short Acting Muscarinic Antagonist	Neutrophils
LAMA	Long Acting Muscarinic Antagonist	Normotensive
		NP Swab
Acute distress		Pack-Year
Antibiotic Therapy		Penicillin
Anticholinergics		Percussion
Basophils		Persistent
Beta Agonists		Pleural Effusion
Blood Cultures		Pleuritic
Cardiovascular		Pneumococcal Vaccinations
Cessation		Pneumonia
Coarse Crackles		Pneumothorax
Consolidation		Prevention
CRB-65 Score		Productive Cough
Diaphoretic		Respiratory
Dullness		Rubs
Dyspnea		Screening
Eosinophils		Sputum
Exacerbated		Streptococcus Pneumoniae
Excretion		Susceptible
Exertion		Tachycardic
Febrile		Tachypneic
Gallops		Thoracic
Hemoptysis		Tuberculosis
High-Grade		Vaccinations
Hypoxemia		Wheezing