

## **Case Study: DOE**

## **Case Study: DOE**

### **Clinical Dashboard - Pertinent History and Physical**

#### **Paragraph Summary of Case:**

- Paragraph Summary: A 55-year-old female presents with three days of worsening dyspnea on exertion (DOE). The patient has a known history of asthma and reports that her symptoms have not been alleviated by her usual asthma medications. She denies experiencing any chest pain, fever, or recent infections.

#### **Patient Approach:**

- Education Level: High School
- Emotional Response: Anxious
- Communication Style: Cooperative and clear, but a bit rushed due to shortness of breath.

#### **History of Present Illness (HPI):**

- Onset: 3 days ago
- Location: Generalized, affecting breathing
- Duration: 3 days
- Character: Worsening dyspnea, particularly during physical activities
- Aggravating/Alleviating Factors: Aggravated by physical activity, unrelieved by usual asthma medications such as inhalers

## **Case Study: DOE**

- Radiation: None
- Timing: Constant and worsening
- Severity: Moderate to severe, impacting daily activities
- Additional Details: No associated fever, chills, or chest pain

### **Past Medical History (PMHx):**

- Active Problems: Asthma, Hypertension
- Inactive Problems: Seasonal Allergies
- Hospitalizations: None recently
- Surgical History: Appendectomy at age 25
- Immunizations: Up to date

### **Social History (SHx):**

- Tobacco: Former smoker, quit 10 years ago
- Alcohol: Occasional, socially
- Substances: Denies any illicit drug use
- Diet: Balanced diet, with occasional fast food
- Exercise: Walks daily, but limited by current symptoms
- Sexual Activity: Sexually active with one partner
- Home Life/Safety: Resides in a non-smoking household, no pets
- Mood: Generally stable but anxious due to breathing issues
- Contextual Details: Works as a retail manager, finds job moderately stressful

## **Case Study: DOE**

### **Family History (FHx):**

- Parents: Father deceased (heart disease), Mother alive (diabetes)
- Siblings: One sibling with hypertension

### **Medications and Allergies:**

- Medications: Albuterol inhaler, Fluticasone inhaler, Lisinopril
- Allergies: NKDA (No Known Drug Allergies), allergic to pollen and dust mites

### **Review of Systems (ROS):**

- Pertinent Findings: Reports intermittent wheezing, denies chest pain, palpitations, fever, or recent infections

### **Physical Examination:**

- Findings:

General: Anxious-appearing, in mild respiratory distress

HEENT: No nasal congestion or throat erythema

Respiratory: Bilateral wheezing, prolonged expiratory phase, no rales or rhonchi

Cardiovascular: Regular rate and rhythm, no murmurs

Abdomen: Soft, non-tender, no hepatosplenomegaly

Extremities: No edema

Neurological: Alert and oriented, no focal deficits

## **Case Study: DOE**

- General: Anxious-appearing, in mild respiratory distress
- HEENT: No nasal congestion or throat erythema
- Respiratory: Bilateral wheezing, prolonged expiratory phase, no rales or rhonchi
- Cardiovascular: Regular rate and rhythm, no murmurs
- Abdomen: Soft, non-tender, no hepatosplenomegaly
- Extremities: No edema
- Neurological: Alert and oriented, no focal deficits

- General: Anxious-appearing, in mild respiratory distress
- HEENT: No nasal congestion or throat erythema
- Respiratory: Bilateral wheezing, prolonged expiratory phase, no rales or rhonchi
- Cardiovascular: Regular rate and rhythm, no murmurs
- Abdomen: Soft, non-tender, no hepatosplenomegaly
- Extremities: No edema
- Neurological: Alert and oriented, no focal deficits

### **Diagnostic Reasoning:**

- Essential HPI Details User Should Elicit:

Onset and character of dyspnea

Aggravating and alleviating factors

Response to current asthma medications

Presence of any associated symptoms such as fever, chest pain, or wheezing

## **Case Study: DOE**

- Onset and character of dyspnea
- Aggravating and alleviating factors
- Response to current asthma medications
- Presence of any associated symptoms such as fever, chest pain, or wheezing
- Differential Diagnoses: Asthma exacerbation, COPD exacerbation, Pulmonary embolism, Heart failure, Pneumonia
- Rationale: The primary working diagnosis is asthma exacerbation given the patient's history, symptomatology, and non-response to current medications. Other differentials to consider include COPD exacerbation (although less likely given lack of smoking history and previous diagnosis), PE, heart failure, and pneumonia which may present similarly but with different physical exam findings or associated symptoms.

- Onset and character of dyspnea
- Aggravating and alleviating factors
- Response to current asthma medications
- Presence of any associated symptoms such as fever, chest pain, or wheezing

### **Teaching Points:**

- Key Learning Objectives:

Understand the clinical presentation and management of asthma exacerbations

Differentiate between asthma and other causes of dyspnea on exertion

Recognize the importance of detailed history-taking and physical examination in diagnosing

## Case Study: DOE

respiratory conditions

- Understand the clinical presentation and management of asthma exacerbations
  - Differentiate between asthma and other causes of dyspnea on exertion
  - Recognize the importance of detailed history-taking and physical examination in diagnosing respiratory conditions
- Educational Content:

Asthma exacerbation can be identified by symptom worsening despite usual medication use and may require additional treatment such as systemic corticosteroids.

Comprehensive history and physical examination help in distinguishing between asthma exacerbation and other potential diagnoses like heart failure or pulmonary embolism.

Patient education on proper inhaler technique and adherence to follow-up care is crucial in management.

- Asthma exacerbation can be identified by symptom worsening despite usual medication use and may require additional treatment such as systemic corticosteroids.
- Comprehensive history and physical examination help in distinguishing between asthma exacerbation and other potential diagnoses like heart failure or pulmonary embolism.
- Patient education on proper inhaler technique and adherence to follow-up care is crucial in management.

- Understand the clinical presentation and management of asthma exacerbations
- Differentiate between asthma and other causes of dyspnea on exertion
- Recognize the importance of detailed history-taking and physical examination in diagnosing respiratory conditions

## **Case Study: DOE**

- Asthma exacerbation can be identified by symptom worsening despite usual medication use and may require additional treatment such as systemic corticosteroids.
- Comprehensive history and physical examination help in distinguishing between asthma exacerbation and other potential diagnoses like heart failure or pulmonary embolism.
- Patient education on proper inhaler technique and adherence to follow-up care is crucial in management.

## Case Study: DOE

### PATIENT DOOR CHART and Learner Instructions

- Patient Name: Jane Doe
- Age: 55
- Legal Sex: Female
- Chief Complaint: Worsening dyspnea on exertion
- Clinical Setting: Outpatient clinic

#### Vital Signs:

- Blood Pressure Reading: 140/85 mmHg
- Pulse Rate: 92 bpm
- Respiratory Rate: 24 breaths per minute
- Temperature (Celsius): 37.0°C
- SpO2: 95% on room air