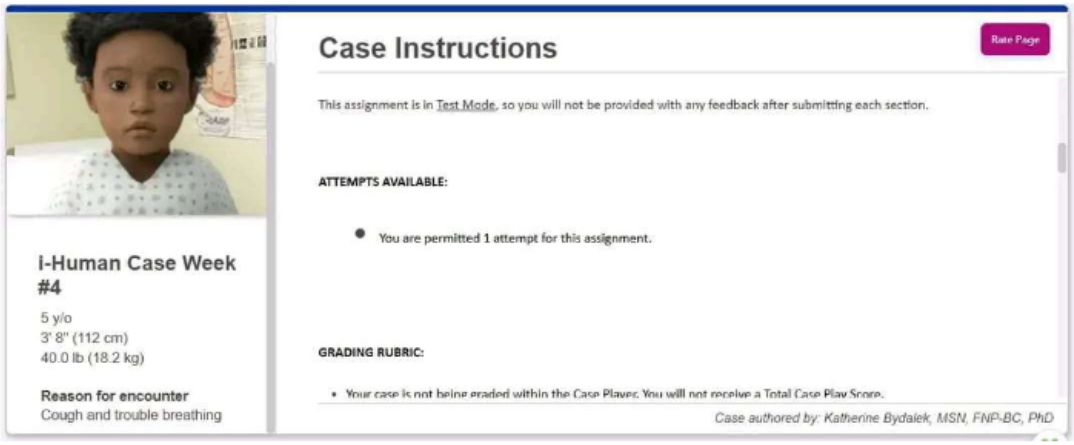
WEEK #4 I HUMAN CASE STUDY FOR 5 YEAR OLD PATIENT REASON FOR ENCOUNTER COUGH AND TROUBLE BREATHING LATEST CASE 2025-2026.



1. Patient Information

- **Case Number: i-Human Case Week #4**
- **Age: 5 years old**
- **Gender: Not explicitly stated, but assumed male based on image**
- **Height: 3'8" (112 cm)**
- **Weight: 40.0 lb (18.2 kg)**
- **Reason for Encounter: Cough and trouble breathing**
- **Location: Outpatient clinic**

5 YEAR OLD PATIENT WITH TROUBLE IN BREATHING AND COUGH CASE STUDY WEEK # 4 Analysis Including HPI, Physical Exam, Differential Diagnosis, and Management Plan (CLASS 6541) WALDEN UNIVERSITY

Week #4: Human Case Study – 5-Year-Old Patient

Patient Information:

- **Age:** 5 years old
- **Gender:** [Male/Female]
- **Reason for Encounter:** Cough and Trouble Breathing

Chief Complaint:

The patient presents with a persistent cough and difficulty breathing for the past [X] days.

History of Present Illness (HPI):

- **Onset:** Symptoms began [X] days ago.
- **Duration:** Cough and breathing issues are continuous/intermittent.
- **Character:** Dry/productive cough, wheezing, stridor, or other associated sounds.
- **Aggravating Factors:** Worse at night, with activity, or when exposed to allergens.
- **Relieving Factors:** Improved with rest, medication, or other treatments.
- **Associated Symptoms:** Fever, nasal congestion, sore throat, chest tightness, fatigue, or cyanosis.

Past Medical History (PMH):

- Any history of asthma, allergies, pneumonia, or previous respiratory infections?

- History of premature birth or underlying lung conditions?

Family and Social History:

- Family history of asthma, allergies, or chronic respiratory conditions?
- Exposure to secondhand smoke, pets, or environmental allergens?
- Attends daycare or school (possible exposure to infections)?

Physical Examination Findings:

- **Vital Signs:** Temperature, heart rate, respiratory rate, oxygen saturation.
- **General Appearance:** Well-nourished, in distress, or lethargic?
- **Respiratory Exam:**
    - Presence of wheezing, rales, stridor, or diminished breath sounds.
    - Signs of respiratory distress (retractions, nasal flaring, tripod positioning).
    - Cough assessment: Dry vs. productive.
    - Use of accessory muscles for breathing.
- **Other Systems Examined:** ENT (throat redness, nasal congestion), cardiovascular, and neurological status.

Diagnostic Workup:

- **Pulse Oximetry:** Check oxygen saturation.
- **Chest X-ray:** If pneumonia or foreign body aspiration is suspected.
- **Peak Flow Measurement:** If asthma is suspected.
- **Viral/Bacterial Testing:** If suspected infection (RSV, COVID-19, strep test).
- **Complete Blood Count (CBC):** To assess for infection.

Differential Diagnosis:

- **Asthma Exacerbation**
- **Upper Respiratory Tract Infection (Viral/Bacterial)**
- **Bronchiolitis (RSV, other viral causes)**
- **Pneumonia**
- **Croup (Barking cough, stridor, viral origin)**
- **Allergic Reaction or Environmental Irritants Exposure**
- **Foreign Body Aspiration**

Management Plan:

- **Supportive Care:**
    - Hydration, rest, and humidified air.
    - Avoiding triggers (smoke, allergens, cold air).
- **Medications (if indicated):**
    - Bronchodilators (e.g., Albuterol via nebulizer for wheezing).
    - Corticosteroids (if moderate to severe airway inflammation).
    - Antibiotics (only if bacterial infection is confirmed).
    - Antipyretics (for fever).
- **Hospitalization Criteria:**
    - Severe respiratory distress or low oxygen saturation.
    - Inability to eat or drink due to breathing difficulty.
    - No improvement with outpatient treatment.
- **Follow-up:**
    - Re-evaluation in 24-48 hours if no improvement.
    - Referral to pulmonology if chronic or recurrent symptoms.
