Patient Diagnosis Case Study Asthma

Complete the case study by answering the questions associated with the scenario.

Scenario

Nancy Smith, a 35-year-old female, presents with an asthma exacerbation. She has had asthma since she was a

child for which she was hospitalized several times. Her asthma was well controlled until the past couple of years.

She has been seen in urgent care a few times over the past year (most recently 4 months ago) and was given a

prescription for an inhaled steroid (she never filled), albuterol inhaler, and oral steroids. She had eczema as a child

and received allergy shots for many years. Her asthma symptoms flared again 2 weeks ago, and she has been using

her albuterol 4 to 5 times/day. She reports that she is very short of breath when climbing stairs or when walking to

the mailbox. She has had nighttime coughing spells every day during the past week and has had to prop up herself

up on pillows to breathe. She indicates that she has had similar previous flares in the past.

Health information:

• Meds: Proair HFA, Claritin, Flonase prn.

• Spirometry:

o FEV1: 61%

o FVC: 88%

o FEV1/FVC ratio: 69%

• Pulse ox: 93% on RA

Based on the scenario provided, fully inform your patient and explain their diagnosis.

Use UpToDate located in the University Library to search for and locate the most current evidence-based guidelines

to answer the following questions.

Overall Health and Pathophysiology

1. Discuss the pathophysiology of asthma, including the 3 core defects.

2. Explain the significance of “atopy” and “one continuous airway,” applying Nancy’s scenario.

Diagnosis

3. Interpret her spirometry results by defining and analyzing each value (FEV1, FVC, FEV1/FVC ratio) individually.

4. Classify Nancy’s asthma. Which of the 4 categories (intermittent, persistent—mild, persistent or moderate,

persistent—severe) does she fall under? Explain your justification.

Asthma Management

5. Is Nancy’s asthma being managed properly? Justify your response.

6. What is the value in performing this spirometry on Nancy when she already has a known diagnosis of asthma?

7. Discuss the patient education you would provide and how you would specifically tailor your information to Nancy to

facilitate compliance and understanding