

A Case Study on Suboptimal Asthma Control in a Pediatric Patient: Addressing Adherence and Caregiver Concerns

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Abstract

This case study presents an 8-year-old male patient, B.M., admitted to Cork University Hospital with symptoms of cough, wheezing, shortness of breath, and fever (38.5°C). With a history of recurrent asthma exacerbations requiring hospitalization, B.M. has suboptimal asthma control due to poor adherence to inhaled corticosteroids, primarily driven by parental concerns about potential side effects, such as growth stunting. His exacerbations are primarily triggered by viral infections, with recent exposure to a family member with a viral illness. Clinical examination revealed wheezing on expiration, prolonged expiration, and stable vital signs, suggesting a mild to moderate exacerbation.

The literature review highlights asthma as a prevalent pediatric condition, influenced by genetic, environmental, and immunological factors. Although not curable, the symptoms of asthma can be well controlled with effective treatment. However, as present in the case, adherence to asthma treatment remains a significant challenge, with one study reporting mean adherence rates as low as 36% to ICS in children –thus hindering the treatment effectiveness. Poor health literacy and side effect anxiety are two reasons for the poor adherence relevant to this case.

To tackle unique difficulties in adhering, the case emphasizes the importance of personalized asthma action plans (PAAPs), which are individualized plans catered to the patients needs/concern. Studies have shown that increased patient involvement in decision making regarding their health results in an increase in the effectiveness of care. It can be discussed with the patient's caregiver that although some research suggests that ICS may temporarily slightly impact growth, the benefits in preventing severe exacerbations outweigh these risks. This case emphasizes the importance for patient/caregiver engagement, healthcare literacy and tailored treatment plans to optimize asthma management in pediatric populations and prevent long-term consequences.