GUEST EDITORIAL

Paediatric asthma in South Africa: A case of hunger in times of plenty

Asthma is a heterogeneous chronic inflammatory condition with variable airflow limitation and characterised by airway reversibility.[1] Globally, asthma is among the top five most common respiratory non-communicable diseases, with an estimate of >300 million sufferers.[2] The 2015 Global Burden of Disease Study found that worldwide 4 million deaths are due to chronic respiratory disease, with 80 - 90% occurring in low- and middle-income countries, including South Africa (SA).[3,4] In a modelling study, asthma prevalence was found to be increasing in adults and children in Africa. Asthma rates almost tripled over 20 years – from 40 million in 1990 to 119 million in 2010.[5]

In the International Study of Asthma and Allergies in Childhood (ISAAC), SA children were found to have the highest prevalence of asthma symptoms: >20% in 13 - 14-year-olds and >50% with severe asthma symptoms, reflecting a high morbidity due to asthma.[6,7] An increasing prevalence of asthma has also been linked to increased rates of urbanisation. The following are risk factors for the development of asthma and more severe asthma symptoms: urbanisation, which is associated with increased exposure to air pollution due to traffic, poor ventilation of houses in peri-urban areas, high levels of violence, psychosocial stressors and little physical activity.

Despite SA having an excellent package of medications for asthma care in the *Standard Treatment Guidelines and Essential Medicines List for South Africa*,[8] the number of asthma deaths remains high, with SA being among the top 10 countries in the world in terms of such deaths.[9] The key to improving asthma-related outcomes is linked to three main pillars: access to a diagnosis being made, appropriate access to medication, and education to improve adherence and achieve asthma control. In this issue of CME, the South African Childhood Asthma Working Group (SACAWG)[10,11] reviews the epidemiology, diagnosis and control of asthma in children.

Diagnosis of paediatric asthma is particularly challenging, especially in preschool children <5 years of age. Although this age group has a low mortality risk, there is significant morbidity owing to over-utilisation of healthcare resources, e.g. multiple visits to healthcare providers, use of unnecessary and sometimes harmful medications and the need for repeated admissions. Primary-level healthcare providers do not feel confident to make the diagnosis of asthma in young children. Consequently, recurrent wheezing in a preschool child is not documented or is attributed to conditions other than asthma. Furthermore, the current traditional diagnostic tools for asthma in children >6 years old to demonstrate airways reversibility are difficult to use in preschool children. Noting these diagnostic challenges, a key change to the recommendations in confirming the presence of asthma in this age group is the concept of a 6 - 8-week trial of medication, followed by a period of cessation of treatment to confirm the diagnosis of asthma. Should the symptoms recur with discontinuation of therapy, a diagnosis of asthma can then confidently be made.

Achieving asthma control is one of the goals of asthma treatment. Poor asthma control is linked to a diminished quality of life and escalation of direct and indirect costs with regard to the condition. While an assessment of asthma control should be done during each follow-up visit, the new recommendations have been adapted to include the assessment of future risk for poor asthma outcomes, in line with the Global Initiative for Asthma recommendations.[1]

A diagnosis of asthma and access to treatment are achievable goals in SA, even in young children, as long as healthcare providers perform a simple risk assessment and initiate a therapeutic trial of medications, thereby reversing the current status quo of poor access to diagnosis and therefore appropriate accessible treatment.

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