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Editorial

Achieving asthma control in low-middle-income countries: Why it is important?

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Asthma is the most common chronic respiratory disease and an estimated 300 million individuals suffer from the disease worldwide. It is a serious global health problem with a substantial burden on all age groups in society and the health-care system. There is an increasing prevalence in many developing countries, with rising treatment costs and burdens for patients. Although the disease cannot be cured, it can be effectively treated and controlled with the opportunity for a good quality of life.[1]

According to international asthma guidelines, the long-term goals of asthma management are symptom control and risk reduction and studies have shown that this goal is achievable. Asthma control is defined as the extent to which the manifestations of asthma can be observed in the patient or have been reduced or removed by treatment. Controlled asthma is determined by symptom control and absence of future risk of adverse events which include the risk of exacerbations, lung function decline, and side effects of medications. Patients with good control have little or no symptoms during the day and night, infrequent need for reliever medication, live productive, physically active lives with no flare-ups, and normal or near-normal lung function.[1,2]

The asthma management and control in Nigeria: The asthma insight and reality Nigeria (AIRNIG) study revealed that over 90% of the participants diagnosed with asthma had uncontrolled asthma.[3] From several populations and hospital-based studies in sub-Saharan Africa, it can be observed that "the prevalence of uncontrolled asthma has ranged between 45% and 95% among adults and children." Similarly, this dismal pattern is not peculiar to developing countries, but it was also noted in the Western countries indicating that achieving asthma control remains an elusive goal for the majority of patients worldwide.

The question is this, "why is asthma control very important in low-middle-income countries (LMICs)?" The LMICs are least able to absorb the impact of uncontrolled asthma because they have poor health-care resources, lack social support systems, and universal health coverage resulting in high out-of-pocket cost. Consequently, the burden and impact are likely to be greater than in developed countries.

The management of asthma includes pharmacological therapy: The use of an inhaled reliever and controller medications, treating comorbidity, and other modifiable risk factors for poor control. Besides, there are non-pharmacological considerations such as inhaler skills, adherence, written asthma action plan, self-monitoring, smoking cessation, and avoidance of triggers that are important to achieve optimal control.[1,2]

Several studies in LMIC have shown that asthma can get out of control due to patients and physician-related factors as well as health systems related factors. Patients' factors consist of non-adherence, poor inhaler technique, comorbidity, active smoking, poor asthma knowledge and beliefs, poor health-seeking behaviors, and non-prescription use of oral corticosteroids.[4-6] The physician factors include an incorrect choice of inhaler device, non-adherence to guidelines, and use of asthma control measurement tools.[7] The systemic factors are inadequate infrastructure for diagnosis, as well as widespread poverty. More so, limited access to essential asthma medicines, due to non-availability and high cost, contributes to poor medication adherence.[8-10]

In this issue of the Journal of the Pan African Thoracic Society, Osman *et al*. reported that nearly 85% of patients attending asthma clinics in Sudan were poorly controlled with patient, physician, health system, and social factors contributing to poor asthma control.[5] This figure is comparable to what was reported in AIRNIG and another study.[3,4] The most significant determinant of uncontrolled asthma in this study was non-prescription use of oral corticosteroids and is in tandem with a previous study.[4] In LMIC, a significant proportion of the population are financially constrained to afford prescribed controller medications and mostly resorted to a Quick-Fix method of using corticosteroid tablets when their asthma worsens. Other factors associated with poor asthma control were non-adherence to clinic follow-up, longer transportation time to and types of health facilities, and previous inhaler technique training. Surprisingly, having a family history of asthma was associated with asthma control, and this might warrant investigation in a future study.

Considering the significant impact of uncontrolled asthma in LMIC, there is a need for holistic strategies to mitigate the burden of poor control. First, the cost of medication is an important barrier that should be addressed to achieve asthma control. Asthma controller medication should be subsidized to make it more affordable and also be included in the essential drug list to ensure ready availability. Physicians should be implored to prescribe appropriate inhaler devices taking into consideration patients' peculiarities, preferences, and handling skills, using a simplified regimen, without mixing inhaler types. Furthermore, training of patients and health-care practitioners involved in asthma care on the proper use of inhaler devices should be prioritized. Concomitant conditions such as rhinitis and reflux disease should be adequately treated to decrease the probability of asthma-related hospitalization. Patients' asthma knowledge, beliefs, and medication adherence should be addressed at each visit as prescribed treatments are only effective when taken. It is also imperative for physicians to comply with local protocols and guidelines and use asthma control measurement tools for regular assessment of patients at every visit. Avoidance of triggers including smoking cessation should be encouraged and smoke-free environment promoted in homes and public places. Finally, there is a need for stakeholders including patient groups to advocate for and lobby the politicians and government officials to provide more infrastructures for asthma care.

In conclusion, poorly controlled asthma is attributable to several factors. A multifaceted approach is required to reduce the burden and its impact on the life of people living with asthma in LMIC.

REFERENCES

1. Global Strategy for Asthma Management and Prevention; 2020. Available from: https://www.gina asthma.org. [Last accessed on 2021 May 01].
2. Erhabor GE, Abdullahi AA, Ozoh OB, Adeniyi BA, Desalu OO, Falade AG, *et al.* Nigeria Asthma Management Guideline Ile-Ife: Signet; 2017.
3. Ozoh OB, Ayuk AC, Ukwaja KN, Desalu OO, Olufemi O, Aderibigbe SA, *et al.* Asthma management and control in Nigeria: The asthma insight and reality Nigeria (AIRNIG) study. Expert Rev Respir Med 2019;13:917-27.
4. Desalu OO, Fawibe AE, Salami AK. Assessment of the level of asthma control among adult patients in two tertiary care centers in Nigeria. J Asthma 2012;49:765-72.
5. Osman R, Ahmed K, ElSony A. Factors associated with uncontrolled asthma among Sudanese adult patients. J Pan Afr Thorac Soc 2021;2:1-9.
6. Tarraf H, Al-Jahdali H, Al Qaseer AH, Gjurovic A, Haouichat H, Khassawneh B, *et al.* Asthma control in adults in the Middle East and North Africa: Results from the ESMAA study. Respir Med 2018;138:64-73.
7. Desalu OO, Onyedum CC, Adeoti AO, Ozoh OB, Fadare JO. Knowledge and use of asthma control measurement tools in the management of asthma: A survey of doctors working in family and internal medicine practice in Nigeria. Afr Health Sci 2016;16:480-9.
8. Ozoh OB, Eze JN, Garba BI, Ojo OO, Okorie EM, Yiltok E, *et al.* Nationwide survey of the availability and affordability of asthma and COPD medicines in Nigeria. Trop Med Int Health 2021;26:54-65.
9. Desalu OO, Onyedum CC, Salawu FK, Iseh KR, Salami AK. Asthma in Nigeria: Are the resources available to support internationally endorsed standards of care? Health Policy J 2011;99:250-4.
10. Kibirige D, Kampiire L, Atuhe D, Mwebaze R, Katagira W, Muttamba W, *et al.* Access to affordable medicines and diagnostic tests for asthma and COPD in Sub Saharan Africa: The Ugandan perspective. BMC Pulm Med 2017;17:179.

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