



## ORIGINAL ARTICLE

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## Influence of seasonal changes on asthma exacerbation in a sudan savanna region: An analysis of 87 cases

Aminu Abbas<sup>1</sup>, Juliana U Okpapi<sup>2</sup>, Chibueze H Njoku<sup>3</sup>, Abdallah A Abba<sup>2</sup>, Simeon A Isezuo<sup>1</sup>, Isah M Danasabe<sup>4</sup><sup>1</sup> Department of Medicine, Usmanu Danfodiyo University Teaching Hospital, Sokoto, Nigeria<sup>2</sup> Department of Medicine, ABUTH, Zaria, Nigeria<sup>3</sup> Department of Medicine, UCTH, Calabar, Nigeria<sup>4</sup> Department of Medicine, General Hospital, Minna, Nigeria

## Correspondence Address:

Aminu Abbas

Department of Medicine, Usmanu Danfodiyo University Teaching Hospital, Sokoto  
Nigeria**Background:** Asthma accounts for 1 out of every 250 deaths worldwide. Many of these deaths are preventable as they occur as a result of suboptimal long-term medical care and delay in seeking help during severe exacerbation. It is believed that increased concentrations of dust, high winds, low temperatures, and low humidity may cause exacerbation of asthma.**Objective:** The aim of this study is to assess seasonal variation in asthma exacerbation among patients attending Usmanu Danfodiyo University Teaching Hospital, Sokoto. **Materials and Methods:** Eighty-seven patients aged 16 years and above with physician-diagnosed asthma were selected by systematic random sampling. Clinical information was obtained from each participant about history of asthma exacerbation and health-care utilization. Meteorological data were obtained from the Nigerian Meteorological Agency corresponding to period of patient's recruitment. **Results:** Eighty-seven patients comprising 60 females and 27 males aged  $32.1 \pm 10.8$  years participated in the study. Among the study participants, 50.6%, 28.7%, and 20.7% had exacerbation during harmattan, rainy, and dry (hot) seasons, respectively. Correlation analysis shows a significant negative relationship between temperature and asthma exacerbation ( $r = -0.372$ ,  $P < 0.01$ ). **Conclusion:** This study shows that asthma exacerbation is most frequent during the harmattan season and low temperature is associated with its exacerbation.

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