**Title of abstract:**

Economic burden of type 2 diabetes mellitus complications among patients in the eastern region of Ghana: A descriptive cross-sectional cost-of illness study

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**Abstract:**

**Objective:** To assess the economic burden associated with the management of type 2 diabetes with complications from patients of the Eastern Regional Hospital’s Diabetic Clinic of the Eastern Region of Ghana.

**Methods:** The study is a descriptive cross sectional cost-of illness study which was carried out in May, 2016 among 258 diabetes patients. Participants were selected by systematic random sampling and informed consent was signed. A pretested structured questionnaire was used for data collection. The data were entered into Epi-Info version 7 and analyzed using Microsoft Excel version 13 and STATA version 13. Kruskal-Wallis and Wilcoxon Rank Sum tests were used to determine statistical significance in cost difference. Total healthcare management cost was estimated and average cost determined. Intangible cost burden was analyzed using the 5-dimension Likert scale and the tertile descriptive statistics. Sensitivity analyses was conducted to test robustness of the cost estimates.

**Results:** About 68% (n=175) of type 2 diabetes patients with complications were above 55 years. The estimated total healthcare management cost was US$9,980.62, with direct healthcare management cost constituting about 94%. The average healthcare management cost was US$38.68 (95% CI: 5.53-71.84). Patients on treatment for 5 years and above incurred significantly higher direct cost compared to those below 5 years, US$40.03 ± 40.71 (p<0.05). Patients incur moderate intangible cost burden. There was no statistically significant relationship between intangible cost burden and all the socio-demographic characteristics of patients.

**Conclusion:** The findings suggest considerable economic burden associated with healthcare management of type 2 diabetes with complications, particularly in the elderly. The longer a patient stays with the disease, the significantly higher average direct cost incurred per month. Diabetes prevention strategies and, patient’s regular physical activities and proper dietary plan are highly recommended.