**Characterization of the treatment trajectory and assessment of the disease weight during uncomplicated malaria in the Democratic Republic of Congo.**

**Caractérisation du trajectoire et évaluation du poids de la maladie durant la malaria non compliquée en RDC**

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**ABSTRACT**

**Context.** Malaria remains a major public health problem in the DRC, but its socioeconomic burden remains largely unexplored in the country.

**Aims.** The purpose of this study was to characterize the therapeutic routes of malaria patients, to estimate the economic cost and the social burden of the disease during uncomplicated malaria in the DRC.

**Methods.** A nationwide survey was conducted in 2017 within 10 geographic locations including sentinel surveillance sites of the National Malaria Control Program (Vanga, Kalima, Bolenge, Katana, Kawara, Fungurume, and Kamina) and the main cities of the country (Kinshasa, Lubumbashi, and Kisangani). Patients with uncomplicated malaria (or their relatives) were interviewed on arrival at selected health facilities, and their medical records were screened. Study parameters were socio-demographic characteristics, routes followed for the search for care, costs of care, and indices of health related quality of life (HRQoL) including the EQ5D3L, the VAS, and the number of QALYs. Generalized linear regression models were fitted to generate estimates with their 95% credibility intervals (95%-CI).

**Results.** A total of 1080 patients aged of 13.1±14 years and comprising 51.2% of females were included. The average total cost per malaria episode was estimated at US $ 15.8 [95% CI: 15.2-16.5] including US $ 11.5 [95% CI: 10.8-12.1] directly charged to the patient and his relatives, almost 10 times the daily Gross Domestic Product in the country. An average disease weight of 36.3% [95% CI: 35.1-37.5] was noted per malaria case. Despite a quasi-constant disease weight noted between all collection sites, notable geographic variations in the economic costs of malaria were observed. The mean number of QALYs estimated per malaria episode was 0.0108 [95% CI: 0.0106 - 0.0111]. The health care trajectory of patients was marked by a frequent pre-hospital use of antimalarial drugs (68.9%) as well as a relatively low use of bed nets at home (69.6%).

**Conclusion.** Uncomplicated malaria constitutes a substantial economic and social burden in the DRC. The malaria control efforts to be promoted should be started from education for health and extended to epidemiological measures and improvement of the general living conditions of the population.