**Estimating the direct medical costs of Helicobacter pylori eradication therapy for outpatient primary care in Cameroon: implications for quality care and universal health coverage**

Jeannine Aminde, Leopold Aminde

**Abstract**

**Background:** Almost half the world’s population is infected with Helicobacter pylori (*H. pylori)* with the highest reported prevalence from Africa. This infection is associated with several morbid gastrointestinal conditions and the World Gastroenterology Organization (WGO) recommends testing for dyspeptic persons and the treatment of positive cases. Despite the high prevalence and related burden of this infection, the cost of treatment in patients with dyspepsia in primary care settings in Cameroon is unknown.

**Methods:** This was a retrospective review of outpatient records from January 2012 to December 2016 at the Wum District Hospital, in the Northwest region of Cameroon. We reviewed records of all patients for whom *H. pylori* serology test was requested. Cost of illness was estimated from the patient’s perspective based on hospital stipulated charges.

**Results:** We included 451 patients, 63.6% (n = 287) females and mean age was 40.7 years.Overall *H. pylori* seroprevalence was 51.5% (95%CI: 47% – 56%). The most used eradication regimen was; omeprazole + amoxicillin + metronidazole (53.9% of seropositive persons). The use of first line clarithromycin-based therapy was low (18.5%) and declining across the years. The mean cost of eradication therapy was 11,415 ± 5,507 FCFA; this ranged 8,200 FCFA (for omeprazole + amoxicillin + metronidazole therapy) to 21,000 FCFA (for clarithromycin triple therapy). The average total cost of treatment for dyspeptic outpatients was 8,357 ± 4,211 FCFA, (range: 5,900 to 21,510 FCFA).

**Conclusion:** Our study shows that one in every two dyspeptic people have *H. pylori* infection. Well over a third of Cameroonians live below the national poverty line (44.8% below the lower middle income class poverty line), and the average cost of outpatient treatment for *H. pylori* infection in primary care accounts for a third of minimum wage in Cameroon (36,270 FCFA). In the absence of universal health coverage, this has significant implications for Cameroon, as healthcare costs are reliant on out-of-pocket payments with potential to exert catastrophic health expenditure if broader perspectives, hospitalization and disease complication costs are taken into account.

**Key words:** Helicobacter pylori, seroprevalence, cost, primary care, Cameroon