Resistance of enteropathogens mainly associated with diarrhoea to frequently prescribed antibiotics in Kousseri (Far North, Cameroon)

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Background The resistance of diarrhoea-causing enteropathogens to antibiotics is a global concern.

Methods A cross-sectional descriptive study that had as objective to test the sensitivity of these pathogens to antibiotics frequently prescribed in the Logone and Chari Division was carried out in Kousseri from 24 July to 23 October 2015. Stool samples were collected from patients (children and adults) presenting at the Kousseri Annex Regional Hospital, in sterile containers and analysed as required by SOPs in the cholera detection laboratory of the NGO ‘Better Access to Health Care’ (BAHCARE) in Kousseri. Microbial isolation and identification was done using Hektoen and EMB culture media and API 20E pack (Biomerieux). Antibiotic susceptibility testing was done using the Kirby Bauer method with Muller Hinton medium.

Results A total of 150 stool samples were analysed, out of which 45 enteropathogens were isolated (66% of isolated microbes were *Escherichia coli*), identified and tested with antibiotic discs. The rate of resistance of *Escherichia coli* was 83.33% to cotrimoxazole and 43.33% to both ceftriaxone and ciprofloxacin. Salmonella species had a resistance rate of 71.42%, 42.86%, and 28.57% to cotrimoxazole, ceftriaxone and ciprofloxacin, respectively. *Shigella spp* were 100% resistant to cotrimoxazole, ciprofloxacin and the combination of amoxicillin with clavulanic acid.

Conclusions These results underscore the need to systematically assess the sensitivity of enteropathogens to antibiotics so as to guide health workers on the prescription of antibiotics in the Lake Chad area, Cameroon.