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Abstract

Cholera continues to be an important cause of morbidity and mortality in many areas of the world, and there is currently a high frequency of new outbreaks in Africa. Following a confirmed cholera outbreak in Siaya, Kisumu, Bondo and Nyando districts, Nyanza province in western Kenya between April and July 2007, a laboratory surveillance study was conducted at the New Nyanza Provincial General Hospital's Microbiology Laboratory. The study aimed at isolating and identifying the strain of *Vibrio cholerae*, Identifying the mean age of the patients and monitoring the susceptibility patterns to major antibiotics. It further aimed at determining effectiveness of empiric management of cholera. A total of 219 samples were processed out of which a total of 85 samples (39%) were found positive for *Vibrio cholerae* 01 sero-type Inaba. The mean age recorded was 19 years ($1 \leq 80$). The modal ages recorded were 8, 20 and 25. 55% (47) of the recorded cases were females while 45% (38) were males. Generally, *V.Cholerae* 01 sero-type Inaba showed antibiotic resistance to trimethoprim-sulfamethoxazole, nalidixic acid, sulfasoxazole, streptomycin and furazolidone. Tetracycline a commonly used antibiotic for empiric management was 100% effective on all isolates and remains the drug of choice. Samples obtained for case-control study did not yield any cholera isolate. No prior exposure to any antibiotic was recorded among all the subjects. The study confirmed the effectiveness of empirical therapy on cholera and further identified the need of proper hygiene, water treatment, proper waste management and proper eating habits as means of controlling morbidity and mortality of cholera.

Key words: Cholera, morbidity, mortality, empiric management, antibiotic resistance