Colicins produced by *Escherichia coli* are well characterized. However, information regarding colicin production by *Shigella sonnei* and its relevance in polymicrobial infections is unclear. In our study, majority of the *S. sonnei* isolated from diarrhoeal patients exhibited *in vitro* antagonistic activity against *E. coli* DH5α, typical EPEC, atypical EPEC, *S. flexneri* 2a, *S. dysenteriae* type 1 and other strains of *S. sonnei*. Of the 42 strains screened, 36 were positive for E3/E6 and E7 colicin types (85.7%). Along with E3/E6, E7 colicins, one was identified as E2 and two as E8 producers (4.8%). The remaining three were non-producers.

We analyzed the sequence of *btuB* in some bacterial strains. Investigation of *btuB* in the laboratory induced resistant mutant of *E.coli* DH5α revealed that it was disrupted by IS2. An assay was performed to compare the uptake of vitamin B12 in the colicin sensitive and resistant *E.coli* DH5α. The sequences of *tolA*, *tolB* and *ompF*, showed no variation.

TEM results revealed that susceptible *S. sonnei* exhibited nucleic acid condensation in a time dependent manner upon exposure to a crude preparation of E7 colicin. Most of the *S. sonnei* strains were isolated as sole pathogens from diarrhoeal cases and exhibited strong *in vitro* antagonistic activity against several enteric bacterial pathogens. *S. sonnei* colicins may play an important role in maintaining the population dynamics in diarrhoea endemic regions, where polymicrobial infections are very high.