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PREVALENCE AND CHARACTERISTICS OF *ESCHERICHIA COLI* ISOLATES HARBOURING SHIGA TOXIN GENES IN ACUTE DIARRHOEAL PATIENTS IN DHAKA, BANGLADESH

[JASMIN AKTER](#)¹⁾, [SURESH CHANDRA DAS](#)²⁾, [THANDAVARAJAN RAMAMURTHY](#)³⁾, [HASAN ASHRAF](#)¹⁾, [DEBASISH SAHA](#)¹⁾, [FARUQUE](#)¹⁾, [GOPINATH BALAKRISH NAIR](#)¹⁾ and [MOHAMMAD SALAM](#)¹⁾

1) ICDDR, B: Centre for Health and Population Research

2) Eastern Regional Station, Indian Veterinary Research Institute

3) National Institute of Cholera and Enteric Diseases

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Abstract: Shiga toxin genes (*stx*) harbouring *Escherichia coli* (ST) isolates were isolated and identified from diarrhoeal patients visiting the Dhaka Health Centre for Health and Population Research, Dhaka, Bangladesh. O

isolated from 775 diarrhoeal stool specimens, 19 harboured *stx1*, a revealed to have amplicons for both *stx1* and *stx2* by a PCR assay the 349-bp *stx1* from representative isolates revealed 100% homology of *stx1* available in the GenBank. Among the *stx1* positive isolates, but none were positive for *hlyA*, *katP*, *etpD* or *saa* genes. Fifteen strains could be categorized into 13 non-O157 serogroups while 4 was a rough strain. Most of the STEC strains were resistant to ampicillin, trimoxazole, tetracycline, and nalidixic acid. In the Vero cell assay, 19 were negative for expression of Shiga toxin (Stx). Randomly amplified PCR (RAPD) analysis demonstrated genetic diversity. This is one of the first to show the presence of STEC in diarrhoeal patients in Bangladesh.

Key words: [Diarrhoea](#), [STEC](#), [PCR](#), [Shiga toxin gene](#), [Genetic diversity](#)

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