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#### SIMPLE DNA TECHNIQUE FOR DETECTION OF ENTEROTOXIGENIC *E. COLI*

Although enterotoxigenic *Escherichia coli* (ETEC) is a major cause of acute diarrhea among children in developing countries, the transmission and epidemiology of the disease are poorly understood. The major hindrance to progress has been difficulty in distinguishing toxigenic from nontoxigenic strains. Present detection methods for ETEC, both bacteriological and immunological, depend on demonstration of heat-labile toxin (LT) or heat-stable toxin (ST) production. LT may be detected in tissue culture and by immunological assays. It is also possible to detect the genes encoding for LT and ST production by DNA-DNA hybridisation with radio-labelled DNA probes. None of these assays, however, is well suited to screening large numbers of *E. coli* isolates in modestly equipped laboratories.

A membrane filter assay is described for detection of heat labile toxin (LT) production by *E. coli*. Bacterial colonies were isolated on a membrane filter which was then incubated on an agar medium containing anti-cholera toxin. LT produced by bacterial colonies diffused through the membrane filter, complexed with the antiserum, and formed a zone of precipitation in the agar. Requirements for reagents and materials were simple. The membrane filter assay showed good agreement with both the ganglioside-enzyme-linked immunosorbent assay and the DNA-DNA hybridisation assay and may prove to be an important technique for the study of the epidemiology of enterotoxigenic *E. coli* in developing countries.

*Abstracted from*  
Vadivelu J *et al.* *Lancet* 1986; **i** : 1007-8.