

## ABSTRACT

The antibiotic susceptibility patterns of Escherichia coli isolated from rectal swabs of patients from the San Lazaro Hospital were determined using the standardized disk-agar diffusion method. The antibiotics tested were amikacin, chloramphenicol, metilmicin, sulphamethoxazole-trimethoprim and nalidixic acid. Of the isolates tested, 53.44% (31 out of 58 isolates) exhibited multiple resistance to chloramphenicol and sulphamethoxazole-trimethoprim, 8.62% (5 out of 58 isolates) to either chloramphenicol or sulphamethoxazole-tri-methoprim and the remaining 37.94% isolates were sensitive to all of the test antibiotics. All of the isolates were sensitive to amikacin, netilmicin and nalidixic acid.

Isolates showing resistance to both chloramphenicol and sulphamethoxazole-trimethoprim but sensitivity to nalidixic acid were made to conjugate with E. coli SF 800 and Salmonella C 568 as recipients. All of the 31 isolates tested transferred their resistance to E. coli SF 800. With Salmonella C 568 as recipient however, only 16 out of 31 (51.61%) effected



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transfer of drug resistance. In both conjugation pairs, complete transfer was seen in all the isolates which effected transfer of the drug resistance. The resistance markers from the donor isolates were transferred at a frequency of  $3.35 \times 10^{-3}$  to  $3.39 \times 10^{-1}$  to the recipient Salmonella C 568.

The multiplicity of drug resistance among the isolates, their conjugative transferability coupled with high frequency of transfer showed the occurrence of plasmid-borne drug resistance in these E. coli test isolates.

