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Potential epidemics due to multidrug resistant enterobacteriaceae in Pakistan

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Background: Antibiotics are the only promising drugs used to control bacterial diseases but their inappropriate use has rendered bacteria resistant. Bacteria have been found resistant to all classes of antibiotics including the last line antibiotics carbapenems. These multidrug resistant bacteria are a constant threat to human health. The aim of this study was to survey the prevalence of antibiotic resistance in clinical enterobacteriaceae isolates.

Methods: Bacterial samples were collected from pathology lab of a tertiary care hospital in Pakistan and enterobacteriaceae isolates were identified by standard biochemical tests. Kirby-Bauer disc diffusion tests were used to check the pattern of antibiotic resistance. Interpretation was done according to Clinical and Laboratory Standards Institute (CLSI) recommendations.

Results: Significant resistance was observed among all members of enterobacteriaceae identified (*E. coli*, *K. pneumoniae*, *P. vulgaris*, *C. freundii*, *E. cloacae*), to all classes of antibiotic tested including carbapenems.

Conclusion: Because of the unhygienic living style and poverty, the threat of these resistant bacteria is increasing, and since carbapenems are drugs of the last resort such a high prevalence of resistant bacteria is an alarming threat and holds the potential of future outbreaks.

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