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Emergence of Class 1 to 3 Integrons among members of *Enterobacteriaceae* in Egypt

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Abstract

In spite of the role of integrons as the main contributor to multidrug resistance worldwide, their prevalence in Egypt is still underestimated. In this work, we announce the emergence of class 2 and 3 integrons among *Enterobacteriaceae* isolates from Mansoura University Hospitals. Ninety-three clinical isolates were obtained from different clinical sources, among which 70% of *E. coli*, 94.8% of *K. pneumoniae* and 85.7% of *Enterobacter* spp. were assigned to be multidrug resistant (MDR). Subsequently, the occurrence of class 1-3 integrons was confirmed by multiplex PCR. Class 1 integron was the most predominant being harbored by 42.8%, 90% and 25% of MDR *E. coli*, *K. pneumoniae* and *Enterobacter* spp. isolates, respectively. This was followed by class 2 and 3 integrons which were, for the first time, reported in these hospitals. Also, coexistence of integrons 1 and 2 was revealed in

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