

Antibiogram Profile of Antibacterial Multidrug Resistance in Democratic Republic of Congo: Situation in Bukavu City Hospitals

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Abstract : Background: Bacterial strains carrying multidrug resistance traits are gaining ground worldwide, especially in countries with limited resources. This study aimed to evaluate the spreading of multidrug-resistant bacteria strains in Bukavu city hospitals in the Democratic Republic of Congo. Methods: We analyzed 758 antibiogram data recorded in files of patients consulted between January 2016 and December 2017 at three reference hospitals selected as sentinel sites, namely the Panzi General Reference Hospital (HGP), BIO -PHARM hospital (HBP), and Saint Luc Clinic (CSL). Results: Of 758 isolates tested, the laboratories identified 12 bacterial strains in 712 isolates, of which 223 (29.42%) presented MDR profile, including *Escherichia coli* (11.48%), *Klebsiella pneumoniae* (6.07%), *Enterobacter* (5.8%), *Staphylococcus aureus* and coagulase-negative *Staphylococci* (1.58%), *Proteus mirabilis* (1.85%), *Salmonella enterica* (1.19%), *Pseudomonas aeruginosa* (0.53%), *Streptococcus pneumoniae* (0.4%), *Citrobacter* (0.13%), *Neisseria gonorrhoea* (0.13%), *Enterococcus faecalis* (0.13%), and *Morganella morganii* (0.13%). Infected patients were significantly more adults (73.1% vs. 21.5%) compared to children and mainly women (63.7% vs. 30.9%; $p = 0.001$). Conclusion: The observed expansion requires that hospital therapeutic committees set up an effective clinical management system and define the right combinations of antibiotics.

Keywords : multidrug resistance, bacteria, antibiogram, Bukavu

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