Antibiotic susceptibility of bacterial etiologic agents recovered from an intensive care unit patients

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Abstract (300 word limit)

Infections are becoming a major health concern especially among critically ill patients in the intensive care unit (ICU). This investigation was carried out to identify the prevalence of bacterial infections and evaluate the antibiotic susceptibility of bacterial pathogens. From November 2015 to May 2016, a total of 234 specimens were referred to Prince Hassan hospital, Amman. These specimens included sputum (41.8%), urine (25.4%), wound swabs (13.9%), blood (12.3%), and others (6.6%). All bacteria were identified by standard microbiological methods. Antibiotic sensitivity was performed using the disk diffusion technique and Molecular typing of the dominant isolates was performed using Amplified Ribosomal DNA Restriction Analysis (ARDRA). Results indicated that the most common bacterial isolates were Acinetobacter spp. (27.6%), Klebsiella spp. (20.7%), Escherichia coli (14.7%), Pseudomonas aeruginosa (12.5%), Staphylococcus aureus (3.9%) and others (11.2%). Pan antibiotic resistance was not encountered in any of our isolates. High rate of resistance to cephalosporins namely ceftriaxone, Cefepime, and Cefazolin was noted among the Gram negative isolates. High percentage of the isolated Klebsiella spp. (59%), Acinetobacter spp., (41%) and E. coli (31%) were found to be ESBL producers. All isolates of Acinetobacter spp. were sensitive to Colistin, whereas 30/ 12 isolates were sensitive to Tigecycline. Cilastin inhibited all Klebsiella spp., recovered. While Amikacin killed 21 out of 24 these isolates. Pramoxin/terobactam and Meropenem were inhibitory to 17/17 of the isolates. The ARDBA technique confirmed the identity of 30 isolates as Acinetobacter spp., and identified 26 of them as A. baumanni. Multi-drug-resistant A. baumanni as established in this study warrants further substantial efforts to define the epidemiology of this bacteria within the ICU setting.

Recent Publications (minimum 5)


Biography (150 word limit)

Dr. Atoum has a good experience in lecturing, research and graduate student supervision for more than 18 years. She supervises more than 40 masters students at Jordan University. Dr. Atoum has a good experience in gene polymorphism. Her main interest is polymorphism in cancer and infectious diseases. This abstract was the result of two years train for Intensive care infections in Jordan. Antibiotic resistance in intensive care unit (ICU) is a great problem all over the world and prevalence in Jordan. Our dream is to reduce antibiotic resistance in the ICU units which may reduce mortality from bacterial resistance in the ICU in Jordan.

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Notes/Comments: