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REZISTENCIJA GRAM NEGATIVNIH BAKTERIJA BOLNIČKIH IZOLATA

RESISTANCE OF GRAM-NEGATIVE BACTERIA OF HOSPITAL ISOLATES

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SAŽETAK

Uvod: Poslednjih godina Gram negativne bakterije (GNB) su najčešći uzročnici infekcija u bolničkoj sredini, naročito multirezistentni sojevi ovih bakterija čija prevalenca raste. Među najznačajnijim izolatima su: Klebsiella pneumoniae, Escherichia colli, Enterobacter spp., Pseudomonas aeruginosa i Acinetobacter spp.
Cilj rada: Cilj ovog rada bio je da se ispita osetljivost 100 sojeva GNB izolovanih kod pacijenata lečenih u bolničkim ustanovama KIM na antibiotike.
Materijal i metode: Istraživanje je obuhvatilo 100 uzoraka (urina-55, rana-23, sputum-22) izolovanih tokom četvoromesečnog perioda 2022 godine. Rezistencija bakterija ispitana je disk-difuzionom metodom antibiograma, korišćene su preporučene vrednosti EUCAST za enterobakterije.
Rezultati: U ispitivanim uzorcima dominiraju enterobakterije. Escherichia colli je bila najčešće izolovana iz urina 67,3%, Klebsiella pneumoniae iz rane 26% i iz sputuma Proteus spp. 31,8%. Najveća učestalost rezistencije Escherichia colli je bila na baktrim i cefiksin, dok je kod Pseudomonas spp. bila na ceftazidin. Rezistencija Klebsiella pneumoniae na meropenem iznosila je 64%. Acinetobacter spp. je najmanja rezistencija ispoljena na gentamicin.
Zaključak: Učestalost pozitivnog nalaza Escherichia colli i Proteus spp. se statistički razlikuju u odnosu na vrstu uzorka, dok Acinetobacter spp. i Klebsiella pneumoniae se nije statističko razlikovalo.
Ključne reči: antibiotici; rezistencija; infekcije; učestalost

ABSTRACT

Introduction: In recent years, gram-negative bacteria (GNB) are the most common causes of infections in the hospital environment, especially multi-resistant strains of these bacteria, whose prevalence is increasing. Among the most important isolates are Klebsiella pneumoniae, Escherichia colli, Enterobacter spp., Pseudomonas aeruginosa and Acinetobacter spp.
The Aim: The aim of this work was to examine the sensitivity of 100 strains of GNB isolated from patients treated in hospital institutions of the administrative province of KIM to antibiotics.
Material and Methods: The research included 100 samples (urine-55, wound-23, sputum-22) isolated during a four-month period in 2022 year. Bacterial resistance was tested using the disc-diffusion antibiogram method, using the EUCAST recommended values for enterobacteria.
Results: Enterobacteria dominate in the examined samples. Escherichia coli was most often isolated from urine 67.3%, Klebsiella pneumoniae from wound 26% and from sputum Proteus spp. 31.8%. The highest frequency of Escherichia coli resistance was to bactrim and cefixin, while Pseudomonas spp. was on ceftazidin. The resistance of Klebsiella pneumoniae to meropenem was 64%. Acinetobacter spp. is the least resistant to gentamicin.
Conclusion: The frequency of positive findings of Escherichia coli and Proteus spp. are statistically different in relation to the type of sample, while Acinetobacter spp. and Klebsiella pneumoniae was not statistically different.
Keywords: antibiotics; resistance; infection; prevalence.