

## MICROBIOLOGICAL SPECTRUM AND SUSCEPTIBILITY PATTERN OF CLINICAL ISOLATES FROM THE NEONATAL UNIT IN A SINGLE MEDICAL CENTER IN WARSAW

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**Background:** Infections are a frequent and important cause of morbidity and mortality in neonatal units. The bacterial pathogens and their susceptibility pattern should be monitored in hospital settings. **Aim:** To describe the distribution of the bacterial agents and their antibiotic resistant and susceptibility patterns in the Special Care Neonatal Unit (SCNU). **Material and Methods:** The retrospective analysis of results of microbiologically tested samples (blood, cerebrospinal fluid, urine, stool, eye excretions, external ear swabs, nosopharyngeal swabs and skin swabs) taken from newborns hospitalized in one SCNU in Warsaw (Poland) was conducted. The analyzed period was from 1<sup>st</sup> July 2010 to 31<sup>st</sup> December 2010. **Results:** A total number of 832 cultured samples were conducted in the analyzed period, 398 of them (43%) were positive. Majority of cultured microorganisms were Gram negative bacteria (73,8%). The most often cultured bacteria in newborns from the ward was *Escherichia coli* (28,6%) and *Klebsiella pneumoniae* (13,6%). Isolates of *Escherichia coli* were in 57,9% resistant to amoxicilline and ampicilline, but in 98,2%-100% sensitive for cefuroxym, ceftazidim, amikacin and netilmycin. *Klebsiella pneumoniae* was in 100% susceptible for amikacin and netilmycin. *Staphylococcus aureus* methicillin resistant strains were cultured in 2,7% cases, all of them were sensitive for vancomycin. **Conclusions:** Present study indicated that gram negative species continue to be the predominant agents of neonatal colonizing flora and important causative agents for infections. Low susceptibility to commonly used ampicillin is a cause of concern. Gram positive bacteria are the main etiological agents responsible for neonatal sepsis.