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## Prevalence, Susceptibility Patterns and Virulence Factors of Bacterial Isolates from Neonate-Mother Pair in Benin City, Nigeria

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Neonatal sepsis remains a major cause of morbidity and mortality in neonates. The prevalence of bacterial isolates in neonates admitted due to sepsis together with mothers and their susceptibility to routinely used antibacterial agents were investigated. Ethical Approval was obtained from the Hospital Management Board while informed consents were obtained from their parents. Forty-five (45) saliva samples from neonates (with signs and symptoms of sepsis admitted at the neonatal unit of Central Hospital, Benin City, Nigeria) were obtained. Vaginal swab samples were also obtained from their mothers to attain a total of ninety samples i.e forty-five neonate-mother saliva-vaginal swab sample pairs. Samples were immediately transported to the Laboratory and processed using standard microbiological protocols. All samples showed significant bacterial growth. At least one similar bacteria were recovered from each neonate-mother pair. Bacteria isolated include *Staphylococcus aureus*, *Klebsiellaoxytoca*, *Klebsiellaspp.*, *Escherichia coli*, *Enterobacter spp.*, *Proteus miriabilis*, *Acinetobacter sp.*, *Proteus vulgaris*, *Pseudomonas aeruginosa*, *Streptococcus agalaticae*, *Citrobacter sp.* and *Streptococcus pneumoniae*. Both neonatal and maternal isolates were sensitive to unacin, azithromycin, cefotaxime and cefuroxime. Bacterial isolates also showed varying degrees of resistance to bactericidal action of normal serum. Isolates also produced haemolysin. This study gives important insight to the role of saliva in bacteriological analysis of sepsis and has implications for neonatal survival.

**Keywords:** Bacterial, neonatal, antibiotics.

### Biography:

Samuel Abumhere Aziembemhin is a Lecturer in the Department of Microbiology, University of Benin, Nigeria. He obtained M.Sc. degrees in Medical Microbiology from the University of Benin in 2014. His research focus is in Neonatal infections, Medical Microbiology and infectious diseases. Mr. Aziembemhin has authored four journal publications with seasoned researchers. He has done some studies on bacterial infections in neonates. Aziembemhin is a winner of the Brenda Howe Africa Scholarship 2012 Nottingham Trent University, United Kingdom. He is also a recipient of the Early Career Academic Grant of The Association of Commonwealth Universities (ACU) 2016.