Nosocomial infections caused by *Staphylococcus aureus* biofilm producer in the neonatal unit of the hospital specialist mother-child of Tlemcen, Algeria

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**Aim & Objective**: The objective of this study was to explore in our neonatal unit, risk factors of nosocomial infection generated by *Staphylococcus aureus*, to determine the prevalence and incidence density of these microorganisms and whether these strains are also responsible for biofilm formation on catheters.

**Patients & Methods**: Two hundred and fifty-three newborn babies were included in this study, the ability to form biofilms was detected by tissue culture plate method, and visualization of biofilms was made by Scanning Electron Microscopy "SEM". MICs of antibiotics on planktonic cells were determined by the dilution technique in 96-well microplate. In parallel, the sensitivity of cells in sessile mode has been tested towards seven antibiotic molecules.

**Results**: The incidence density of nosocomial infection caused by *S. aureus* was the order of 9.87 per 1000 patient days. These strains are capable of forming biofilms and resist 100 times greater than those used in regimens concentrations.

**Conclusion**: This study has also identified certain risk factors of nosocomial infection in our neonatal unit, like prematurity, low birth weight and length of hospital stay. Strains responsible for nosocomial infections in the neonatal unit of EHS Tlemcen can also form biofilms with everything that implies risk for resistance, therefore they can be a real therapeutic stress.

**Biography**
Rebiahi Sidahmed has completed his PhD and his Postdoctoral studies from Tlemcen University. He was Head of the Department of Biology. He has published 5 papers in reputed journals and has been serving as a reviewer member of reputed journal.

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