

## **The Impact of Group B Streptococcus Infection Random Screening during Pregnancy on Subsequent Neonatal Infection/Admission Rates**

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**Background:** Screening pregnant women at 35 to 37 gestational weeks for group B streptococci (GBS) colonization and the usage of intrapartum penicillin as prophylactic antibiotic could reduce the incidence of GBS infection.

**Objective:** To evaluate random screening of pregnant women for GBS infection, the rate of neonatal GBS infection and neonatal admission.

**Design:** A Retrospective Cohort Study.

**Setting:** Bahrain Defence Force Hospital, Bahrain.

**Method:** Two thousand one hundred seventeen patients who delivered from April 2016 to September 2016 were included in the study. The patients were divided into two groups of GBS: screened and not screened. Age, nationality, mode of delivery, result of screening and bacteriuria, membrane status and treatment received prior to labor were documented. The presence of fever or chorioamnionitis, neonatal admission, and blood or cerebrospinal fluid (CSF) cultures were documented. The data were analyzed using StatsDirect software and a P-value of less than 0.05 was considered statistically significant.

**Result:** One thousand forty-seven were screened antenatally, a rate of 49.5%. Two hundred twenty-six (21.6%) were positive for Beta Hemolytic Streptococci (BHS). The screened group had more spontaneous rupture of membrane (SRM)/or artificial rupture of membrane (ARM) and was treated with antibiotics pre-delivery more than unscreened patients. There was no difference between the groups regarding positive blood and CSF culture at birth. There were more cases of intrauterine fetal death (IUID) and admission to the neonatal intensive care unit (NICU) in the non-screened group. Five (0.24%) of the neonatal sepsis were colonized with GBS among both groups. Two cases were a product of screened pregnancy for GBS colonization and found to be positive, but did not receive the appropriate length of intrapartum antibiotics; the remaining three cases were a product of a non-screened mother who did not receive antibiotic.

**Conclusion:** Patients who had selective screening for GBS during pregnancy had no reduced incidence of neonatal sepsis and early neonatal admission; however, they had less admission to NICU and more late neonatal admissions.