

# **Survival of Live Born Babies by Gestational Age and Birth Weight for Age 0-60 days Among Deliveries at SPHMMC.**

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## **ABSTRACT**

### **Background**

Neonatal death accounts for 40% of deaths under the age of 5 years worldwide. Identifying the gestational age and birth weight based outcome and survival rate of neonates will help in planning to improve perinatal & neonatal care and services.

### **Objective**

The main objective of this study was to determine Gestational Age and Birth weight based survival rate and to determine prognostic indicators of survival of live born babies delivered at SPHMMC.

### **Methodology**

Secondary data was extracted from BARNARDS study, in which 5000 mothers who deliver at St. Paul's Hospital Millennium Medical College and their newborns was followed for 60 days after birth.

Secondary data was cleaned, recoded and analyzed using STATA version-14.2. Kaplan-Meier, Log rank test and Cox-proportional hazard regressions were used.

### **Result and conclusion**

The gestational age based survival at the end of follow-up was: for the gestational age between 28-31+6 weeks-66.9%, between 32-36+6 weeks-93.79%, between 37-39+6 weeks-96.42%, between 40-41+6 weeks-96.96% and for gestational age  $\geq 42$  weeks survival was 95.79%. And the birth weight based survival of newborns at the end of follow-up was: for those  $< 1000$ gm-55.56%, between 1000gm-1499gm-62.43%, between 1500-2499-92.70%, between 2500-3999-96.58% and for birth weight  $\geq 4000$ gm survival was 99.48%.

Overall survival rate of neonates at the end of the follow up was 95.55 %.

Birth Weight, Gestational Age, Education status of mother, and Apgar score at 5 minutes were statistically significant risk factors for the survival of a neonet at 5% level of significant.

**Key Words:** *Gestational age, Birth weight, survival rate*