**RISK STRATIFICATION OF SIGNS OF POSSIBLE SERIOUS BACTERIAL INFECTION FOR PREDICTION OF MORTALITY AMONG YOUNG INFANTS - A PROSPECTIVE COHORT STUDY**

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**Introduction**

On examining various evidences, Sepsis emerges as the major reason of mortality among young neonates. As sepsis is major cause of mortality there is a need to identify early signs of sepsis to reduce mortality. WHO conducted a multicentric young infant study and derived a model based approach for community based identification of clinical signs which predict serious illness and hence need immediate hospitalisation. Based on the above study, signs of PSBI (Possible serious bacterial infection) were recommended for assessment. The present study was therefore planned, if the PSBI signs can be stratified in the Indian settings, it would be helpful in guiding the health care policy making where the possibility of community based management of these infants can be explored.

**AIM**

To assess risk stratification of signs of possible serious bacterial infection (PSBI) with mortality among young infants**.**

**Objective**

**Primary Objective**

To correlate signs of possible serious bacterial infection with mortality among young infants (0- 59 days age) admitted in a tertiary care hospital

**Secondary Objectives**

1. To correlate signs of possible serious bacterial infection with duration of hospital stay among discharge young infants (0- 59 days age).

2. To correlate signs of possible serious bacterial infection with time to mortality among young infants (0- 59 days age).

**Material and Method-** A prospective cohort study was conducted in the outborn unit of the hospital. All young infants presenting with one or more signs of possible serious bacterial infection to the paediatric emergency were included. The signs of possible serious bacterial infections were further classified into clinical severe infection (fast breathing, movement only when stimulated, not feeding well ,temperature greater than or equal to 38 °C or less than 35.5 °C or severe chest in-drawing) and critical illness (no movement at all, convulsions, unable to feed at all). These signs were identified and monitored by the attending clinical team in a predefined clinical performa.

 **Result**- A total of 220 young infants were enrolled under study and each signs of possible serious bacterial infection were correlated with fatality rate. Univariate and multivariate logistic regression were used to find out the risk factors of mortality with each signs of possible serious bacterial infection.

**Conclusion**-Signs of clinical severe infection-fever, fast breathing, poor feeding, movement only on stimulation have low case fatality rate. Low body temperature,severe chest indrawing,critical illness signs are associated with high case death rate. Majority of death occur within 48 hour of presentation. Majority of young infant have prolonged duration of stay in hospital except fast breathing.