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Biography

Richa Bajaj, MBBS, DNB, is a pediatrician with over six years of clinical and academic experience at leading medical institutions in India. Currently serving as Senior Resident in Pediatrics at All India Institute of Medical Sciences, she has extensive exposure to Pediatric Intensive Care, High Dependency care, neonatal medicine, and pediatric emergencies. A University Rank 1 holder and multiple Gold Medal awardee, she combines strong clinical acumen with a passion for academic medicine and critical care research. Dr. Bajaj has undertaken internationally funded research training at **Harvard Medical School**, resulting in a first-author publication in the Mayo Clinic Proceedings.

Post-discharge Morbidities and Readmissions Among Very Preterm and Very-Low Birth Weight Infants: A Prospective Cohort Study from North India

Abstract:

Background: Preterm infants, particularly those ≤32 weeks' gestation or ≤1500 g birth weight, remain vulnerable to post-discharge morbidity and mortality despite advances in neonatal care. Data from low- and middle-income countries (LMICs) remain limited.

Objective: To determine the incidence, causes, and risk factors of hospital readmissions and

post-discharge mortality within six months of birth among very preterm or very-low birth weight (VLBW) infants born at a tertiary care centre in North Delhi.

Methods: In this prospective cohort study (September 2020–February 2022), all neonates born at

≤32 weeks gestation or ≤1500 g birth weight at Maharaja Agrasen Hospital, New Delhi, were enrolled after discharge. Infants were followed fortnightly by telephone or in-person up to six months' postnatal age. Baseline maternal and neonatal details were recorded prospectively.

Primary outcome was readmission incidence; secondary outcomes were causes, mortality, and related risk factors. Data were analysed using STATA 14.2 with univariate and multivariate logistic regression.

Results: Of 132 screened neonates, 126 were enrolled. Mean (SD) gestational age was

30.8 (±2.0) weeks and mean birth weight 1258 (±291) g. Twenty-one infants (17%) required 27 readmission episodes; incidence density was 3.6 per 100 person-months. Seventy percent of readmissions occurred within 30 days of discharge, predominantly for respiratory illness (pneumonia 29.6%, sepsis 22.2%). Three post-discharge deaths (2.3%) were recorded—due to sudden infant death, congenital heart disease, and pneumonia. Lower socioeconomic status independently predicted higher risk of readmission (adjusted OR 5.9; 95% CI 1.5–23.0; p = 0.01).

Other factors such as gestation, birth weight, or bronchopulmonary dysplasia were not significant. **Conclusions:** Nearly one-sixth of very preterm/VLBW infants required rehospitalization within six months, mainly for respiratory causes. Socioeconomic disadvantage was a significant modifiable risk factor. Strengthened discharge counselling, early post-discharge follow-up, and community-level support targeting low-income families may reduce preventable morbidity.