

Two-year Outcome of Normal-birth-weight Infants Admitted to a Singapore Neonatal Intensive Care Unit

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Abstract

Introduction: To describe the characteristics, the immediate and short-term outcome and predictors of mortality in normal-birth-weight (NBW) infants admitted to a tertiary neonatal intensive care unit (NICU) in Singapore. **Materials and Methods:** We retrospectively reviewed the medical records of 137 consecutive NBW infants admitted to the NICU of the Singapore General Hospital from January 1991 to December 1992. Data on the diagnoses, clinical presentation of illness, intervention received, complications and outcome as well as follow-up patterns for the first 2 years of life, were collected and analysed. **Results:** NBW NICU infants comprised 1.8% of births in our hospital and 40.8% of all NICU admissions. The main reasons for NICU admissions were respiratory disorders (61.3%), congenital anomalies (15.3%) and asphyxia neonatorum (11.7%). Respiratory support was necessary in 81.8%. Among those ventilated, the only predictive factor contributing to mortality was the mean inspired oxygen concentration. The mortality rate was 11.7%. Causes of death included congenital anomalies (43.75%), asphyxia neonatorum (31.25%) and pulmonary failure secondary to meconium aspiration syndrome (12.5%). The median hospital stay among survivors (88.3%) was 11.0 (range, 4 to 70) days. Of 42 patients (out of 117 survivors) who received follow-up for at least 6 months, 39 infants did not have evidence of any major neurodevelopmental abnormalities at their last follow-up visit, prior to or at 2 years of age. **Conclusions:** Despite their short hospital stay (compared to very-low-birth-weight infants), the high volume of NBW admissions make the care of this population an important area for review to enhance advances in and hence, reduce the cost of NICU care. With improved antenatal diagnostic techniques (allowing earlier and more accurate diagnosis of congenital malformations) and better antenatal and perinatal care (allowing better management of at-risk pregnancies), it is anticipated that there should be a reduction in such admissions with better outcomes. Close follow-up of this high-risk group of infants is also important in order to offer early intervention to those who may possibly have perinatally-related developmental difficulties.

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Key words: Characteristics, Follow-up, Intervention, Predictors of mortality, Outcome

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