

## **P 11. OXYGEN DEPENDENT INFANTS: SAVED AT THE NEONATAL UNIT, FORGOTTEN AFTER DISCHARGE. THE PARADOX OF ACCESS TO TECHNOLOGY IN RESOURCE CONSTRAINED SETTINGS**

**Nathalie Charpak, MD<sup>1</sup> and Juan G Ruiz, MD MMedSci<sup>1,2</sup>**

<sup>1</sup>*Research group, Kangaroo Foundation, Bogota, DC, Colombia* <sup>2</sup>*Clinical Epidemiology, Universidad Javeriana, Bogota, DC, Colombia*

**Background:** In recent years there has been an increase in the incidence of premature infants with chronic lung disease discharged home while receiving oxygen. Clinical course and prognosis of these infants, in countries similar to Colombia has not been properly documented.

**Objective:** The main goal of the study was to document the clinical course and prognosis of a cohort of oxygen-dependent preterm infants in Bogota discharged home during their first year of life.

**Method:** A prospective cohort of 194 preterm infants (gestational age  $\leq 34$  weeks at birth) discharged while receiving oxygen were followed at term, 3, 6, 9 and 12 months corrected age for survival, growth and development and morbidity. Researchers were not involved in providing health care for study participants. Patients were cared for at different structured (Kangaroo Mother Care Programs-KMCP) and not structured clinics, as determined by their health insurer. Both personal and phone interviews were used.

**Results:** There were 3 demises, 25 (12.9%) infants were lost to follow up at 40 weeks of post-conceptual age and 91 (46.9%) at 12 months. Exclusive breast feeding proportion at term was successful in 51 (31.5%) infants. Growth indices at one year were appropriate. At 40 weeks and 3 months, 74.1% and 22.7% of the cohort still had home oxygen and in average, oxygen was discontinued at the postnatal age of 109 days (47 weeks' post-conceptual age); 56.8% were readmitted at least once and in 47%, readmissions were due to respiratory conditions. In 14% of the cases, anemia was detected during the readmission in the first 3 months of life. Only one half had ophthalmologic screening and ROP was detected in 37% of cases. Neuro-psychomotor screening tests were performed only in 19% of subjects. Outcomes in infants followed up at a KMCP were better.

**Conclusion:** Many of the follow up clinics for preterm infants in Bogotá do not provide health care in a systematically structured way. The problems presented by oxygen-dependence in infants are complex, and our data suggest that there is plenty of room for improvement in Bogotá in that respect. Oxygen-dependent preterm infants are particularly fragile and they should receive a high quality follow-up program as KMCP to decrease morbidity and mortality during their first year of life.