NON INVASIVE VENTILATION FOR SEVERE BRONCHIOLITIS

S Mahdoui, A Borgi, N Ghali, A Hamdi, K Menif, A Bouzri, N Ben Jebali
Intensive Care Unit, Children’s Hospital, Tunis, Tunisia

Introduction Non-invasive ventilation (NIV) is a relatively new ventilatory mode that has been increasingly used in the acute setting over the past 15 years, demonstrating beneficial effects in the paediatric population with different types of respiratory failure.

Objectives To examine whether infants with severe bronchiolitis could be managed with non-invasive ventilation (NIV) alone. To study the characteristics, clinical course and outcome of NIV patients.

Patients and methods A retrospective analysis was made of infants with severe bronchiolitis in a Paediatric Intensive Care Unit admitted from 01/09/2011 to 31/01/2012 and from 01/09/2012 to 31/02/2013. One thousand and sixty-four infants with severe bronchiolitis in a Paediatric Intensive Care Unit admitted from 01/09/2011 to 31/01/2012 and from 01/09/2012 to 31/02/2013. One thousand and sixty-four infants with severe bronchiolitis were admitted. One thousand and two were invasively ventilated, seventy-two were treated with NIV. We aimed to examine the characteristics, clinical course and outcome for those who received NIV.

Results Seventy-two patients, including 6 with apnea, were treated exclusively with NIV. The mean age was 54.2 days ± 39.1 (8–221). The mean respiratory rate was 61 breaths/min ± 16.7 (20–104). NIV was delivered by continuous (CPAP) in seven patients, bi-level (BiPAP) positive airway pressure in thirty-four infants and high-flow nasal cannula in thirty-one patients. Twenty-three failed to respond and were invasively ventilated. Risk factors for NIV failure were prematurity and bacterial infection. Duration of hospital stay was shorter in responders. There were no major complications related with NIV.

Conclusion This study demonstrates the efficacy of NIV as a form of respiratory support for infants with severe bronchiolitis avoiding ETI in most of the patients. Risk factors for failure were related with immaturity and severe infection.

SECONDARY TRANSPORT OF CRITICAL PAEDIATRIC PATIENTS: SURVEY IN LOMBARDY

S Maiandi, M Trallini, A Cantoni. Pediatric Unit and Pediatric Emergency Unit, Azienda Ospedaliera della Provincia di Lodi, Lodi, Italy; 1Università degli Studi di Milano, Corso Di Laurea in Infermieristica Pediatrica, Milano, Italy; 2SITRA Area Delle Pediatrici, Fond. IRCCS Cà Granda Ospedale Maggiore Policlinico, Milano, Italy

Background The current health network structure and a lack of a proper filter for pre-hospital care makes every hospital potentially involved into the management of any critical paediatric patient regardless the local experience and organisation. Any first patient’s stabilisation will have to be followed by a secured secondary transport until the hospitalisation at the new facility.

Objective Explore the hospitals’ organisational set up concerning the secondary transport of paediatric critical care patients.

Materials and methods Structured survey delivered to 92 hospitals in Lombardy

Results The response rate was 56%, corresponding to 52 health care facilities. In 29 facilities a dedicated transport service for critical care patients does exist but just in one hospital it’s specific for paediatric patients and it has dedicated staff. Forty facilities are equipped with a paediatric medical bag and the more involved operator is an anaesthesiologist for 39% of cases, followed by the paediatrician in 13% of cases. The nurse participates to the transport in 50% of cases; in 28% of the hospitals a critical care nurse is involved, in 7% of cases the nurse is not specialised and in 4% the nurses are specialised in paediatrics.

Discussion The data shows an non homogeneity management of the critical care patient secondary transport.

Conclusions It’s highly desirable the activation of a secondary transport service with an organisational level compared to the neonatal emergency transport service because the child has its own characteristics as like as the newborn or the adult.

THE PARENTAL PRESENCE DURING PAEDIATRIC CARDIOPULMONARY RESUSCITATION: EPIDEMIOLOGICAL ANALYSIS

S Maiandi, S Mondini, A Cantoni. Pediatric Unit and Pediatric Emergency Unit, Azienda Ospedaliera della Provincia di Lodi, Lodi, Italy; 1Università degli Studi Di Milano, Corso Di Laurea in Infermieristica Pediatrica, Milano, Italy; 2SITRA Area Delle Pediatrici, Fond. IRCCS Cà Granda Ospedale Maggiore Policlinico, Milano, Italy

Background The paediatric cardiopulmonary resuscitation involves high level skills by operators in a setting characterised