

Pediatric acute hypoxemic respiratory failure according to PALICC definition: preliminary report from a single center database and perspectives

Dott. MIRCO NACOTI (1), Dott. ALBERTO BENZI (2), Dott.ssa ISABELLA PELLICIOLI (1), Dott. MORENO FAVARATO (1), Dott. OLIVIERO FOCHI (1), Dott.ssa VALENTINA CICERI (3)(1), Dott.ssa GIULIA DOGNINI (3)(1), Dott. M MONDINI (4), Dott. G BERTOLINI (4), Dott. EZIO BONANOMI (1)

(1) ASST Papà Giovanni XXIII, Bergamo, Italia.

(2) Fondazione IRCCS Policlinico San Matteo, Pavia, Italia.

(3) Università degli studi di Milano Bicocca, Milano, Italia.

(4) Istituto Mario Negri, Bergamo, Italia.

Argomento: Terapia Intensiva Pediatrica

INTRODUCTION: Pediatric Acute Lung Injury Consensus Conference (PALICC) definition of PARDS (2015) were released in order to overcome the limitation of Berlin definition designed for adult population. Aim of this study is to test the feasibility, effectiveness and perspectives of a new electronic case report to collect data of pediatric acute hypoxemic respiratory failure (AHRF), including cyanotic heart disease patients (CHD), according to PALICC definition.

METHODS: Data from all children with AHRF that were admitted to the Bergamo PICU were collected from December 2017 to April 2018, using an electronic dedicated case report (Prosafe) with a petal specifically designed for the study.

RESULTS: 61 AHRF were diagnosed in the study period among children with a median age of 21 months (0-17 years). 41 (69%) were due to an infective disease. 33 children (54%) had a diagnosis of PARDS. One more children without infiltrate at the X-ray was identified as potential PARDS with Pediatric Lung Ultrasound Score (PLUS). Bacterial pneumonia and bronchiolitis were the most frequent causes of PARDS (fig 1). 45% of the PARDS were treated with invasive mechanical ventilation and were stratified in Severe (8, 44%), Moderate (5, 28%) and Mild (1, 5%). 4 CHD patients were not classifiable. HFO and ECMO were used in two children respectively. Total mortality among all 61 patients was 14.7% (9). The higher mortality rate was recorded among patients with PARDS (18%, 6/33), especially with severe disease (50%, 4/8).

CONCLUSIONS: Prosafe petal using PALICC definition allows a prompt identification and specific stratification and among pediatric patients with AHRF. Furthermore it allows to identify PARDS patients X-ray negative with PLUS. Multicenter involvement is needed to explore association between clinical indicators (e.g. compliance of respiratory system, Driving Pressure, PLUS, biomarkers) and outcome.

- Polmoniti n = 24
- Bronchioliti n = 5
- Trauma n = 2
- Altro n = 2

