

THE NONINVASIVE VENTILATION IN PREHOSPITAL: INFLUENCE IN MORTALITY

Nuno Marques¹, Madalena Cunha², Mónica Alves¹, Eduardo Santos³

¹Regional Office Center, National Institute of Medical Emergency, Portugal

²Health School, Polytechnic Institute of Viseu, Portugal

³University Hospital of Coimbra, Portugal

Contact details: nuno.enfermeiro@sapo.pt

Introduction: The Noninvasive Ventilation (NIV) is considered one of the pillars in the treatment of victims with Acute Pulmonary Edema (APE). **Objectives:** The aim of this study consisted in determine the effectiveness of the application of NIV in victims with APE, in the Prehospital (PH) context in what concerns the outcomes of the mortality. **Methods:** We conducted a Systematic Review of Literature (SRL) on studies that assessed the effectiveness of NIV application in APE in the PH context. After research (in PUBMED, EBSCO, Google Scholar and SciELO) in studies published between January 2007 and 31 December 2013. The studies found were subjected to analysis, taking into account the previously established inclusion criteria. The quality of the studies included was assessed by two reviewers using the critical evaluation scale of a study describing a prospective, randomized, controlled clinical trial (RCT) by Carneiro (2008). In the meta-analysis was performed using the Mantel-Haenszel method, using the effect of random models. **Results:** From two RCT's that involved 329 participants were selected 167 of the NIV and 162 of the control group. The studies show in what concerns the mortality, the use of NIV associated with the standard medical treatment in PH provides clinically relevant advantage compared to the application in exclusive of standard medical treatment, but without statistical power (RR = 0.85; 95% CI = 0.43-1.69, p = 0.65). **Conclusions:** The use of NIV in the treatment of patients with APE in PH compared to the exclusive application of standard medical treatment presents benefits in the mortality rate, so we suggest that NIV should be implemented in victims with APE in PH. **Keywords:** Noninvasive Ventilation, Prehospital