





## Helmet CPAP treatment in patients with COVID-19 pneumonia: a multicentre cohort study

Stefano Aliberti <sup>1,2</sup>, Dejan Radovanovic <sup>3</sup>, Filippo Billi<sup>4</sup>, Giovanni Sotgiu <sup>5</sup>, Matteo Costanzo<sup>2</sup>, Tommaso Pilocane<sup>1,2</sup>, Laura Saderi <sup>5</sup>, Andrea Gramegna<sup>1,2</sup>, Angelo Rovellini<sup>4</sup>, Luca Perotto<sup>3,6</sup>, Valter Monzani<sup>4</sup>, Pierachille Santus<sup>3,6</sup> and Francesco Blasi<sup>1,2</sup>

**Affiliations:** <sup>1</sup>Fondazione IRCCS Ca' Granda Ospedale Maggiore Policlinico, Respiratory Unit and Cystic Fibrosis Adult Center, Milan, Italy. <sup>2</sup>Università degli Studi di Milano, Dept of Pathophysiology and Transplantation, Milan, Italy. <sup>3</sup>Ospedale L. Sacco, ASST Fatebenefratelli-Sacco, Division of Respiratory Diseases, Milan, Italy. <sup>4</sup>Fondazione IRCCS Ca' Granda Ospedale Maggiore Policlinico, Dept of Medicine, Acute Medical Unit, Milan, Italy. <sup>5</sup>Dept of Medical, Surgical and Experimental Sciences, University of Sassari, Sassari, Italy. <sup>6</sup>Università degli Studi di Milano, Dept of Biomedical and Clinical Sciences (DIBIC), Milan, Italy.

**Correspondence**: Stefano Aliberti, Dept of Pathophysiology and Transplantation, University of Milan, Respiratory Unit and Cystic Fibrosis Adult Center, Fondazione IRCCS Ca' Granda Ospedale Maggiore Policlinico, Via Francesco Sforza 35, 20122, Milan, Italy. E-mail: stefano.aliberti@unimi.it

## @ERSpublications

Helmet CPAP treatment fails in up to 44% of patients with moderate-to-severe hypoxaemic acute respiratory failure due to COVID-19 pneumonia https://bit.ly/3g7FAB8

Cite this article as: Aliberti S, Radovanovic D, Billi F, *et al.* Helmet CPAP treatment in patients with COVID-19 pneumonia: a multicentre cohort study. *Eur Respir J* 2020; 56: 2001935 [https://doi.org/ 10.1183/13993003.01935-2020].

This single-page version can be shared freely online.

## To the Editor:

Patients with coronavirus disease 2019 (COVID-19) pneumonia can develop hypoxaemic acute respiratory failure (hARF) with the need for positive end-expiratory pressure (PEEP). The administration of continuous positive airway pressure (CPAP) through a helmet improves oxygenation and avoids intubation [1, 2]. A European consensus document suggests that helmet CPAP should be the first therapeutic choice for hARF caused by COVID-19 pneumonia, mainly for minimising aerosol generation [3–5]. However, recommendations are based on experts' opinion and consider only evidence obtained in critically ill COVID-19 patients [3]. The Surviving Sepsis Campaign does not recommend the administration of CPAP for the initial management of severe COVID-19 [6].

Copyright ©ERS 2020.. This version is distributed under the terms of the Creative Commons Attribution Non-Commercial Licence 4.0.