



SHAREABLE PDF

EUROPEAN RESPIRATORY JOURNAL

RESEARCH LETTER

A. AGUSTÍ ET AL.

Add-on inhaled budesonide in the treatment of hospitalised patients with COVID-19: a randomised clinical trial

Alvar Agustí^{1,2,3,4}, Gaston De Stefano⁵, Alberto Levi ⁵, Xavier Muñoz^{4,6,7}, Christian Romero-Mesones^{4,6}, Oriol Sibila^{1,2,3,4}, Alejandra Lopez-Giraldo^{2,3,4}, Vicente Plaza Moral ^{4,8,9,10}, Elena Curto ^{4,8,9,10}, Andrés L. Echazarreta ¹¹, Silvana E. Márquez¹¹, Sergi Pascual-Guàrdia^{4,12,13}, Salud Santos^{2,4,14,15}, Alicia Marin ^{4,16}, Luis Valdés^{17,18,19}, Fernando Saldarini ²⁰, Clara Salgado²¹, Georgina Casanovas^{1,3}, Sara Varea^{1,3}, José Ríos^{1,3,7} and Rosa Faner^{2,3,4}

¹Hospital Clinic, Barcelona, Spain. ²Universitat Barcelona, Barcelona, Spain. ³Institut d'Investigacions Biomèdiques August Pi i Sunyer (IDIBAPS), Barcelona, Spain. ⁴CIBER Enfermedades Respiratorias, Spain. ⁵Servicio de Neumotisiología, Hospital Francisco Muñiz, Buenos Aires, Argentina. ⁶Servei Pneumologia H. Vall d'Hebron, Barcelona, Spain. ⁷Biostatistics Unit, Faculty of Medicine, Universitat Autònoma de Barcelona, Barcelona, Spain. ⁸Dept of Respiratory Medicine, Hospital de la Santa Creu i Sant Pau, Barcelona, Spain. ⁹Institut d'Investigació Biomédica Sant Pau (IIB Sant Pau), Barcelona, Spain. ¹⁰Dept of Medicine, Universitat Autònoma de Barcelona, Barcelona, Spain. ¹¹Servicio de Neumonología, Hospital San Juan de Dios de La Plata, Buenos Aires, Argentina. ¹²Servei de Pneumologia, Hospital del Mar – IMIM, Barcelona, Spain. ¹³Universitat Pompeu Fabra, Barcelona, Spain. ¹⁴Dept of Pulmonary Medicine, Bellvitge University Hospital, L'Hospitalet de Llobregat, Barcelona, Spain. ¹⁵Institut d'Investigació Biomèdica de Bellvitge – IDIBELL, Barcelona, Spain. ¹⁶Hospital Universitari Germans Trias i Pujol, Badalona, Spain. ¹⁷Servicio de Neumología, Complejo Hospitalario Universitario de Santiago, Santiago de Compostela, Spain. ¹⁸Instituto de Investigaciones Sanitarias (IDIS), Santiago de Compostela, Spain. ¹⁹Universidad de Santiago de Compostela, Santiago de Compostela, Spain. ²⁰Sección de Neumotisiología, Hospital Donación Francisco Santojanni, Buenos Aires, Argentina. ²¹Centro de Educación Médica e Investigaciones Clínicas Norberto Quirno, Buenos Aires, Argentina.

Corresponding author: Alvar Agustí (aagusti@clinic.cat)



Shareable abstract (@ERSpublications)

The addition of inhaled budesonide to usual care is safe and may reduce the risk of disease progression in patients hospitalised because of COVID-19 pneumonia <https://bit.ly/3tEQo3p>

Cite this article as: Agustí A, De Stefano G, Levi A, et al. Add-on inhaled budesonide in the treatment of hospitalised patients with COVID-19: a randomised clinical trial. *Eur Respir J* 2022; 59: 2103036 [DOI: 10.1183/13993003.03036-2021].

This single-page version can be shared freely online.

Copyright ©The authors 2022.

This version is distributed under the terms of the Creative Commons Attribution Non-Commercial Licence 4.0. For reproduction rights and permissions contact permissions@ersnet.org

Received: 30 Nov 2021
Accepted: 28 Dec 2021

To the Editor:

SARS-CoV-2 vaccines have been extremely effective in reducing the incidence of severe coronavirus disease 2019 (COVID-19) [1, 2], but effective and safe treatments for acute infection are still limited [3, 4]. An uncontrolled pulmonary inflammatory response to SARS-CoV-2 is considered a key pathogenic mechanism of COVID-19 progression [5], so systemic dexamethasone is recommended in severe cases [4, 6]. On the other hand, in very mild patients at home, inhaled corticosteroids (ICS) may prevent disease progression [7–10]. Whether ICS can also prevent disease progression in patients hospitalised because of COVID-19 has not been explored previously. Accordingly, we designed an investigator-initiated, open-label, randomised clinical trial (RCT) to explore the efficacy of adding inhaled budesonide to usual care to prevent disease progression in patients hospitalised because of COVID-19 pneumonia. We also carefully monitored the safety of this intervention since there are concerns about the use of systemic corticosteroids in other viral (influenza) lung infections [11].

