

Factors associated with hospitalization in bronchiectasis exacerbations: a one-year follow-up study

Rosario Menéndez^{1,4*}, Raúl Méndez¹, Eva Polverino^{2,4}, Edmundo Rosales-Mayor², Isabel Amara-Elori¹, Soledad Reyes¹, Tomás Posadas¹, Laia Fernández-Barat^{3,4} and Antoni Torres^{3,4}

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Abstract

Background: Bronchiectasis (BE) is a chronic structural lung disease with frequent exacerbations, some of which require hospital admission though no clear associated factors have been identified. We aimed to evaluate factors associated with hospitalization due to exacerbations during a 1-year follow-up period.

Methods: A prospective observational study was performed in patients recruited from specialized BE clinics. We considered all exacerbations diagnosed and treated with antibiotics during a follow-up period of 1 year. The protocol recorded baseline variables, usual treatments, Bronchiectasis Severity Index (BSI) and FACED scores, comorbid conditions and prior hospitalizations.

Results: Two hundred and 65 patients were recruited, of whom 162 required hospital admission during the follow-up period. Independent risk factors for hospital admission were age, previous hospitalization due to BE, use of proton pump inhibitors, heart failure, FACED and BSI, whereas pneumococcal vaccination was a protective factor. The area under the receiver operator characteristic curve (AUC) was 0.799 for BSI model was 0.799, and 0.813 for FACED model.

Conclusions: Previous hospitalization, use of proton pump inhibitors, heart failure along with BSI or FACED scores is associated factors for developing exacerbations that require hospitalization. Pneumococcal vaccination was protective. This information may be useful for the design of preventive strategies and more intensive follow-up plans.