

Risk of Mortality Associated with Asthma Exacerbation.

S. D. Sullivan, BSPharm, PhD¹, M. D. Eisner, MD, MPH², J. D. Campbell, PhD¹ and T. A. Omachi, MD, MBA². Email: sdsull@u.washington.edu

¹University of Washington, Seattle, WA and ²University of California, San Francisco, CA.

Background: Little is known regarding the risk of death following an asthma exacerbation. The purpose of our study was to estimate the 30-day mortality risk following an exacerbation episode. Methods: Consenting severe asthma patients from a large closed panel health maintenance organization were eligible for inclusion if they were hospitalized for asthma and survived to discharge from the index hospitalization. An exacerbation was defined as the worsening of symptoms that required either emergency department (ED) visit or hospitalization for asthma (beyond index hospitalization). ED visits were excluded if they were on the same day as a hospitalization. Results: We followed 865 patients for a mean (SD) of 781 (356) days. We identified 276 exacerbations including 121 asthma hospitalizations. The asthma hospitalization rate was 6.5 (95% confidence interval [CI]: 5.5 – 7.8) per 100 person years and exacerbation rate was 14.9 (95% CI: 13.3 –16.6) per 100 person years. A total of 123 deaths from all causes were confirmed (6.7 deaths per 100 person years 95% CI: 5.6 –7.8). We identified 3 deaths within 30 days of the 121 hospitalizations and 0 deaths within 30 days of the remaining 155 exacerbations. The 30 day risk of death following a hospitalization for asthma was 2.48% (95% CI: 0.5% – 7.1%) and overall following an exacerbation was 1.1% (95% CI: 0.2% – 3.1%). The mortality rate associated with asthma exacerbations was 0.16 deaths per 100 person years. Conclusions: Although asthma exacerbation can have a broader definition (e.g. events that require an oral or IV steroid burst), we have focused on studying the relationship between more severe exacerbations and mortality. The 30-day mortality risk is low amongst severe adult asthma patients admitted to hospital or ED for asthma exacerbation.

This abstract is funded by: None.

Am J Respir Crit Care Med 179;2009:A4770

Internet address: www.atsjournals.org

Online Abstracts Issue