

# BUSM: Severe sepsis, new-onset AF associated with increased risk of hospital stroke, death

13 November 2011

A recent study led by researchers at Boston University School of Medicine (BUSM) shows an increased risk of stroke and mortality among patients diagnosed with severe sepsis and new-onset atrial fibrillation (AF) during hospitalization.

Allan J. Walkey, MD, assistant professor of medicine at BUSM and a [pulmonologist](#) at Boston Medical Center (BMC), is the lead author of the study, which will be published in the [Journal of the American Medical Association](#). Walkey also will present the findings at the American Heart Association's annual Scientific Sessions in Orlando, Fla., on Sunday, Nov. 13.

Severe sepsis is the 10th leading cause of death in the United States, and [atrial fibrillation](#) affects one in four people over the age of 40. While both are common illnesses, and chronic atrial fibrillation is a known risk factor for stroke and death, very little is known about new-onset atrial fibrillation during severe sepsis.

"The purpose of our [retrospective study](#) was to examine if a new-onset atrial fibrillation diagnosis in patients with severe sepsis was associated with an increased the risk of stroke and mortality in a [hospital](#) setting," said Walkey.

The researchers examined data, provided by the Agency for Healthcare Research and Quality, from more than three million hospitalized patients. Looking at the risks of stroke and mortality, patients with new-onset atrial fibrillation during severe sepsis had three times the risk of having a stroke and a seven percent increased risk of death during hospitalization. Almost three percent of patients with new-onset atrial fibrillation during severe sepsis had a stroke during hospitalization compared to less than one percent of those not diagnosed with the condition during severe sepsis.

The data also showed that 56 percent of patients with severe sepsis and new-onset atrial fibrillation died, whereas 39 percent of patients with severe sepsis who did not develop new-onset atrial fibrillation did not. Additionally, six percent of patients with severe sepsis developed new-onset atrial fibrillation compared to less than one percent of patients who did not have severe sepsis and were hospitalized for another reason. Furthermore, among all patients with or without severe sepsis, 14 percent of all new-onset atrial fibrillation cases occurred in patients with severe sepsis.

"It is projected that one million Americans will have severe sepsis this year, and based on our data, approximately 60,000 people will develop new-onset atrial fibrillation," said Walkey. "There are currently no guidelines on how best to care for these specific patients, but this study is a call to action that this under-recognized potential complication of severe [sepsis](#) requires further investigation on how to treat these critically ill patients."

Provided by Boston University Medical Center

APA citation: BUSM: Severe sepsis, new-onset AF associated with increased risk of hospital stroke, death (2011, November 13) retrieved 30 April 2021 from <https://medicalxpress.com/news/2011-11-busm-severe-sepsis-new-onset-af.html>

*This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.*