

Acute respiratory disease poses significantly greater risk for black Americans

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Black Americans are nearly twice as likely to develop acute lung injury, or ALI, as white Americans, according to researchers at the Emory University School of Medicine in Atlanta. The study also revealed that black patients did not have a higher risk of in-hospital death when compared to white patients.

"Our findings have important implications for investigators and policy stakeholders interested in reducing health disparities among minority patients," said Sara Erickson, M.D., assistant professor of medicine at Emory. "Further resources should be dedicated to studying why black Americans are at a disproportionately increased risk for developing acute lung injury, compared to white Americans."

The research will be presented on Tuesday, May 19, at the American Thoracic Society's 105th International Conference in San Diego.

ALI is a severe lung dysfunction that occurs as a result of severe illness or trauma. Symptoms include breathing difficulties, rapid breathing, hyperventilation and insufficient oxygen levels in the blood. Potential causes of ALI include physical injury, pneumonia, sepsis, and other systemic illnesses.

Researchers sought to determine the incidence of ALI among black and white Americans using data collected from the National Hospital Discharge Survey, dating from 1992 through 2005. Cases of ALI were defined by the presence of respiratory failure or pulmonary edema,

excluding [congestive heart failure](#) in combination with an at-risk condition—including sepsis, pneumonia, aspiration or trauma. The average annual incidence of ALI over the entire study period was 48 cases per 100,000 for black Americans, compared to 25.7 cases per 100,000 for white Americans. Overall, in-hospital mortality among patients with ALI did not vary meaningfully by race, with 37.9 percent for white Americans and 36.3 percent for black Americans.

Why black Americans have a substantially increased risk for ALI as compared to white Americans remains unclear. But Dr. Erickson said one possible explanation may be that black Americans are at higher risk for developing certain conditions that lead to ALI.

"Earlier studies have indicated that black Americans have almost double the risk of developing sepsis, compared to whites. In addition, black Americans have a higher burden of immune-compromising conditions, such as diabetes, and HIV/AIDS, which increase the risk of pneumonia," she noted. "Black Americans also have greater severity of illness at the time of admission to intensive care, which may reflect a greater delay in presentation, or perhaps a delay in diagnosis of an at-risk condition."

Dr. Erickson said the results indicate the need for further epidemiologic studies using national samples with detailed clinical data to determine why black Americans are at an increased risk for developing ALI and other critical illnesses, like sepsis.

Source: American Thoracic Society ([news](#) : [web](#))

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