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NEWS

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**Saint Luke's research indicates risk factors – not care differences –
impact health outcomes in black heart attack patients**

Study published in March 3 Annals of Internal Medicine

KANSAS CITY, Mo. – Black patients do worse than white patients after heart attack, but why? Previous studies of this issue have implicated differences in care, such as a lower use of angioplasty and bypass surgery in black patients. However, the difference seems to be due to worse risk factors for heart disease in black patients rather than to differences in the care that patients get, according to new research led by a cardiologist at Saint Luke's Mid America Heart Institute and a professor at the University of Missouri–Kansas City (UMKC) School of Medicine

The paper, *Factors Associated With Differences in Outcomes of Black and White Patients After Heart Attack*, is published in the March 3 *Annals of Internal Medicine*. The study involved 1,849 heart attack patients at 10 U.S. hospitals.

Heart attacks occur when blood flow through the arteries to the heart is blocked long enough to damage a portion of the heart muscle. Some people with heart attacks die before they receive medical attention while others are admitted to hospitals and treated for their symptoms. Complications after heart attack include death, weakening of the heart's pumping action (heart failure), abnormal heart rhythms, stroke, and continued symptoms of chest pain or shortness of breath.

Black patients tend to do worse than white patients after having a heart attack and are more likely to die after a heart attack.

The reasons are unclear, according to lead study author John Spertus, M.D., MPH, clinical director of Outcomes Research at Saint Luke's Mid America Heart Institute. "It's possible that black patients are less likely than white patients to get recommended heart attack treatments or that black patients have worse heart disease or other health and social problems that lead to bad outcomes," he said.

The implications from the study are clear, however. “It’s not a question of racial disparity in health care that accounts for poorer outcomes in blacks. The risk factors for blacks – such as being poorer, having less insurance or education, and having a higher incidence of diabetes, high blood pressure, and kidney disease – need to be addressed in order to reduce black/white differences in outcomes after a heart attack,” said Dr. Spertus.

“This study by Dr. Spertus and colleagues is important in determining the root causes of disparities in health, so that ultimately these disparities can be eliminated,” said Betty Drees, M.D., dean of the UMKC School of Medicine. “The impact of this type of research by our faculty is important in Kansas City and the rest of the nation.”

What is unique about this study is that it included detailed information about patients’ health and social factors. It also included information about death, re-hospitalization, chest pain, and quality of life after a heart attack. Outcomes were compared in black and white patients, first without accounting for health and social factors and then adjusting for these factors. They also examined the types of care black and white patients received and whether care was related to outcomes.

When the researchers did not account for differences in health and social factors, black patients were more likely than white patients to die, be re-hospitalized, and have chest pain and worse quality of life after a heart attack. However, when the researchers accounted for health and social factors, the differences between black and white patients were no longer present.

Differences in treatments received did not explain the differences after accounting for differences in black and white patients’ health and social factors. “In other words,” said Dr. Spertus, “black and white patients who had similar severity of heart and other diseases and similar social factors, such as level of education and financial situations, had similar heart attack outcomes. Black patients seem to have worse risk factors, such as being poorer, having less insurance or education, and having a higher incidence of diabetes, high blood pressure, and kidney disease, and these may explain most of the differences in heart attack outcomes.”

The full report is in the March 3, 2009, issue of *Annals of Internal Medicine*. The authors are J.A. Spertus, P.G. Jones, F.A. Masoudi, J.S. Rumsfeld, and H.M. Krumholz.

Saint Luke’s Mid America Heart Institute is a member of Saint Luke’s Health System, which consists of 11 area hospitals and many primary care practices, and provides a range of inpatient, outpatient, and home care services. Founded as a faith-based, not-for-profit organization, our mission includes a commitment to the highest levels of excellence in health care and the advancement of medical research and education. The health system is an aligned organization in which the physicians and hospitals assume responsibility for enhancing the physical, mental, and spiritual health of people in the metropolitan Kansas City area and the surrounding region.

The University of Missouri-Kansas City School of Medicine was founded in 1971 as an innovative six-year medical program. From its combined baccalaureate/doctor of medicine curriculum to a docent system that emphasizes small group learning, the UMKC School of Medicine has remained a trendsetter in medical education.

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