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Older black and Hispanic patients have a greater risk than white patients of developing complications following surgery, a difference that can be explained by a patients' gender and pre-existing medical conditions. These findings, which are published today in the *Journal of the American Geriatrics Society* (*JAGS*), indicate that efforts to carefully evaluate risk factors prior to surgery need more attention, particularly for older minority patients.

Research has shown that minority groups tend to develop complications following surgery more often than whites. Investigators at the University of Pennsylvania School of Nursing explored the impact of patient characteristics, including race, ethnicity and sex. They also examined the occurrence of postoperative complications among older adults using patient discharge data; results from the American Hospital Association's Annual Survey; and the 2010 U.S. Census. Investigators also examined 13 frequent complications among 587,314 white, black, and Hispanic patients 65 years and older

who underwent general, orthopedic, or vascular surgery in 600 hospitals.

Investigators discovered that black and Hispanic patients have a greater chance than white patients of developing a vast majority of postoperative complications. In fact, black patients were nearly three times more likely than white patients to develop 12 of the 13 complications identified by researchers. Hispanic patients were twice as likely than white patients to develop nine of the 13 complications but less likely than white patients to develop two of the complications.

When hospital and patient characteristics were taken into account, the number of complications experienced more by black and Hispanic patients significantly dropped.

"The risk of developing a post operative complication may be attributed to a number of factors. Most pronounced, however,

was the effect of pre-existing medical conditions," said lead author Dr. J. Margo Brooks Carthon.

The investigators also found differences between

blacks, Hispanics, and whites that persisted after accounting for hospital and patient characteristics were different for male and female patients. "Older black and

Hispanic patients admitted to hospitals for common surgeries have a disproportionately higher risk of developing complications. The

risk of developing certain post-surgical complications, however, differs for men and women—even men and women of the same ethnic and racial backgrounds,"

explained Dr. Brooks Carthon.

The findings demonstrate the need to improve surgical safety

and quality, particularly for older minority patients who are often sicker going into surgery and thereby at greater risk for

complications. "Our study also suggests the need for further evaluation of patient risk factors prior to surgery and

more vigilant surveillance of patients following operative procedures," said Dr. Brooks Carthon.