Disparities in care among homeless adults hospitalized for cardiovascular conditions
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Cardiovascular disease is a major cause of death among homeless adults, with mortality rates that are substantially higher than the general population. However, little is known about whether there are differences in care between homeless and non-homeless adults and whether any such differences contribute to disparities in cardiovascular outcomes. Understanding these patterns is critically important from a public health perspective, particularly given the growing homeless population in the United States and rising rates of acute hospitalization among homeless adults.

In a new retrospective study published today in *JAMA Internal Medicine*, a team of researchers led by Rishi Wadhera, MD, MPP, MPhil, an investigator in the Smith Center for Outcomes Research in Cardiology at Beth Israel Deaconess Medical Center (BIDMC), found that there are indeed striking disparities in in-hospital care and mortality between homeless and non-homeless adults. The study found homeless adults were significantly less likely to receive important diagnostic or therapeutic procedures for urgent cardiovascular conditions and generally had higher in-hospital death rates compared with non-homeless adults.

"Our findings illustrate an urgent need for public health and policy efforts to support safety-net hospitals and other hospitals that care for high numbers of homeless individuals, in order to reduce disparities in hospital-based care and improve health outcomes for this vulnerable population," said Wadhera.

Wadhera and colleagues evaluated whether there were differences in intensity of care (e.g. diagnostic or therapeutic procedures) and death rates among homeless and non-homeless adults hospitalized for urgent cardiovascular conditions, including heart attack, stroke, cardiac arrest and heart failure. Using the State Inpatient Databases of the Healthcare Cost and Utilization Project, they analyzed more than 1.8 million hospitalizations across 525 hospitals between 2010 and 2015, focusing on three states with large homeless populations—Massachusetts, Florida, and New York.

Wadhera and team found that only 55 percent of homeless patients hospitalized for a very dangerous type of heart attack, ST-elevation myocardial infarction, underwent percutaneous coronary intervention to treat this condition. In contrast, 76 percent of non-homeless adults with the same type of heart attack received this procedure. Similarly, homeless individuals hospitalized for cardiac arrest or stroke also received lower intensity procedural care and experienced higher mortality rates compared to their non-homeless counterparts.

For example, in the cardiac arrest cohort, homeless adults were 7.5 percent less likely to undergo coronary angiography and 4.7 percent less likely to undergo percutaneous coronary intervention, compared to non-homeless adults. Among adults hospitalized with stroke, homeless individuals were 6 percent less likely to undergo cerebral angiography than non-homeless individuals. Similarly, mortality rates among homeless persons hospitalized with stroke and cardiac arrest were 2.6 percent and 18.7 percent higher, respectively, than non-homeless individuals.

"One important finding from our study was that even in the same hospital, homeless patients seem to be clinically treated differently than non-homeless patients," said Wadhera. "For example, we found that among adults hospitalized for a heart attack, homeless individuals were less likely to receive a coronary angiography and percutaneous coronary intervention, than non-homeless adults hospitalized for a heart attack at the same site of care. Further work is needed to understand whether implicit biases or stigma influence how
clinicians deliver care to homeless patients or whether there are clinical reasons behind these differences in care."

Provided by Beth Israel Deaconess Medical Center


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