Quality of care for in-hospital cardiac arrest varies among US hospitals

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Adherence to recommended care following an in-hospital cardiac arrest (IHCA) varies significantly among U.S. hospitals, and patients treated at hospitals with greater adherence to these recommendations have higher survival rates, according to a study published online by *JAMA Cardiology*.

More than 200,000 patients are treated for IHCA annually in the United States. In-hospital cardiac arrest is associated with poor survival, yet survival to discharge rates vary among U.S. hospitals. Whether this variation is owing to differences in IHCA care quality is unknown. Some process-of-care measures, such as shorter time to defibrillation, are associated with better survival after IHCA.

Using data from the American Heart Association's Get With the Guidelines-Resuscitation (GWTG-R) program, Monique L. Anderson, M.D., M.H.S., of Duke University Medical Center, Durham, N.C., and colleagues analyzed 35,283 patients with IHCA treated at 261 U.S. hospitals from January 2010 through December 2012. The researchers calculated a hospital process composite performance score for IHCA using 5 guideline-recommended process measures, and scores were calculated for all patients.

The IHCA hospital process composite performance was associated with risk-standardized hospital survival to discharge rates: 21 percent, 21 percent, 23 percent, and 23 percent from lowest to highest performance quartiles, respectively. After adjustment, each 10 percent increase in a

hospital's process composite performance was associated with a 22 percent higher odds of survival. Hospital process composite quality performance was also associated with favorable neurologic status at discharge.

The researchers estimate that an additional 22,990 to 24,200 lives would be saved per year if all hospitals operated at the level of the highest-performing hospital. "Although this is an estimate only, it helps to shed light on the effect of ensuring timely and high-quality care for IHCA."

"Significant opportunities remain for improving adherence to guideline-recommended care overall and with individual process-of-care measures. Of importance, enhancing process quality of care may improve outcomes for the many patients with IHCA."

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