

Hospitals' cardiac arrest incidence and survival rates go hand in hand

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Hospitals with the highest rates of cardiac arrests tend to have the poorest survival rates for those cases, new University of Michigan Health System research shows.

Meanwhile, hospitals that do the best job of preventing cardiac arrest among their patients tend to be better at saving patients with cardiac arrest, according to the findings that appear in *JAMA Internal Medicine*.

These results were not entirely expected, say researchers. For conditions other than cardiac arrest, higher volume has been associated with better outcomes for patients. For example, for many procedures, hospitals and surgeons that perform more cases also have lower [mortality rates](#).

"Our results should be reassuring to patients seeking to identify the best hospital in the area of cardiac arrest. Hospitals that had lower rates of cardiac arrest were more likely to have better outcomes for patients who did arrest," says lead author Lena M. Chen, M.D., M.S., assistant professor in [internal medicine](#) at the University of Michigan.

There is room for improvement in both prevention and treatment of cardiac arrest, as each year about 200,000 U.S. patients experience cardiac arrest while hospitalized and fewer than 20 percent of them survive to discharge.

National efforts to improve the quality of hospital care for cardiac arrest have focused on measuring hospitals' cardiac arrest [survival rates](#). The authors suggest that such efforts are an appropriate first step towards reducing mortality from cardiac arrest, since hospitals that have high case-survival rates are also likely to have low [incidence rates](#).

Researchers could not fully explain why hospitals' performance on prevention and treatment seem to

go hand in hand. Their results suggest that some [hospital](#) factors such as [nurse staffing](#) may mediate the relationship between incidence and survival. For example, hospitals with higher nurse-to-bed ratios may have both lower rates of cardiac arrest and higher survival rates, the study found.

"Our overarching goal is to reduce mortality from cardiac arrest – whether through better prevention or better treatment of [cardiac arrest](#). A next step is to identify what's behind the success of hospitals that have already figured out how to be winners on both fronts – prevention and treatment," says Chen, who is also a member of the U-M Institute for Healthcare Policy and Innovation.

More information: "Association between a Hospital's Rate of Cardiac Arrest Incidence and Cardiac Arrest Survival," *JAMA Internal Medicine*. [doi:10.1001/jamainternmed.2013.1026](https://doi.org/10.1001/jamainternmed.2013.1026)

Provided by University of Michigan Health System

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