

## CARDIAC RESUSCITATION

## Increased survival for patients after in-hospital cardiac arrest

Resuscitation guidelines and protocols for in-hospital cardiac arrest have changed in the past decade. Does this correlate with increased survival, and do the surviving patients retain neurological function?

According to a newly published study by Saket Girotra *et al.*, the answer to both of those questions is 'yes'.

A total of 84,625 patients from the USA who experienced an in-hospital cardiac arrest were subdivided into those with an unshockable initial rhythm (asystole or pulseless electrical activity, 79.3%), and those with a shockable rhythm (ventricular fibrillation or pulseless ventricular tachycardia, 20.7%). Cardiac arrests occurring in emergency rooms or procedural areas such as operating rooms were excluded, because survival rates in those situations tend to be higher than in other parts of the hospital.

The acute resuscitation survival rate and the postresuscitation survival rate both

steadily increased between 2000 and 2009 for patients with either type of initial rhythm. The risk-adjusted rate of survival to discharge from hospital was 13.7% and 22.3% in 2000 and 2009, respectively.

An increasing survival rate after cardiac arrest could, theoretically, increase the rate of neurological disability among the survivors. The data from Girotra *et al.* do not support this hypothesis. Indeed, the researchers found a small decrease in the number of patients with clinically significant neurological disability at the time of discharge from hospital (32.9% in 2000 vs 28.1% in 2009).

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