

Categorisation of Survival and Death after Cardiac Arrest



Most cardiac arrest (CA) patients remain comatose post resuscitation, prompting goals-of-care (GOC) conversations. Researchers studying the impact of these conversations on patient outcomes have found that most CA survivors die due to family wishes despite poor neurological prognosis at one-year. The findings will be published in the journal *Resuscitation*.

See Also: [In-Hospital Cardiac Arrests and Resuscitation](#)

Effective GOC conversations have been shown to improve family satisfaction in medical ICU patients. Based on prognostication given during these conversations, families may choose to continue care, sign do-not resuscitate (DNR) orders, or may elect for withdrawal of life-sustaining therapy (WLST).

GOC conversations are particularly important when they inform decisions regarding WLST, because this accounts for over 50 percent of deaths following CA. Recent studies have demonstrated that WLST due to unfavourable neurological prognosis by a physician is the most common cause of death. A thorough assessment of the GOC conversations among all patients, specifically focusing on whether consensus was reached, has not been studied. The researchers sought to address these issues in this new study.

Patients (n=385) treated for CA in Columbia University ICUs between 2008-2015 were retrospectively categorised into various modes of survival and death based on documented GOC discussions. Patients were deemed "medically unstable" if there was evidence of haemodynamic instability at the time of discussion. Cerebral performance category (CPC) greater than 2 was defined as poor outcome at discharge and one-year post-arrest.

Overall, the survival rate was 31% (n=118); most commonly after early recovery without any discussions (57%, n=67), followed by survival due to family wishes despite physicians predicting poor neurological prognosis (20%, n=24), and then survival after physician/family agreement of favourable prognosis (17%, n=20). The survivors due to family wishes had significantly worse outcomes compared to the early recovery group (discharge: $p=0.01$; one-year: $p=0.06$) and agreement group ($p<0.001$; $p<0.001$), though two patients did achieve favourable recovery.

"It is important to note that while the vast majority of patients with poor prognostication had poor neurological recovery, two patients in this group achieved favourable recovery both at discharge and one-year. This suggests that our current prognostication algorithms may miss some patients with potential for recovery," write Sachin Agarwal, MD, MPH, Department of Neurology, Columbia University Medical Center, New York, NY, and co-authors.

Among nonsurvivors (n=267), withdrawal of life-sustaining therapy (WLST) while medically unstable was most common (31%; n=83), followed by death after care was capped (24%, n=65), then WLST while medically stable (17%, n=45). Death despite full support, brain death and WLST due to advanced directives were less common causes.

"It is also important to note the very low rate of advanced directives among our cohort (3% of nonsurvivors). While we do not have sufficient evidence to know how a higher rate of advanced directives would have affected the outcomes, we do know that the presence of an advanced directive in our cohort took the decision-making responsibility off of the family and ensured that care was in accordance with patients' known wishes," the authors add.

Source: [Resuscitation](#)

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