A study from the University of Arizona suggests that doctors may be predicting survival outcomes too soon in patients who suffered an out-of-hospital cardiac arrest.

The study was led by Bentley Bobrow, MD, professor at the University of Arizona Colleges of Medicine in Tucson and Phoenix and co-director of the Arizona Emergency Medicine Research Center - Phoenix, and colleagues, who showed that physicians may need to allow comatose cardiac arrest patients much more time to awaken before making a prognosis.

Bobrow, and colleagues from the Arizona Emergency Medicine Research Center studied 573 out-of-hospital cardiac arrest patients who completed targeted temperature management. Their results are published in the *Annals of Emergency Medicine*. The time taken for these patients to awaken after being rewarmed from therapeutic hypothermia treatment not only varied widely, but took longer than many had thought.

See Also: [Therapeutic Hypothermia for Cardiac Arrest](#)

316 patients out of the 573 became responsive. Of these 60 woke up at least 48 hours after rewarming. Eight patients became responsive more than seven days after rewarming, six of whom were discharged with good neurological scores. The researchers found no reliable predictive factors that could identify who would awaken early or late. Currently there is no validated system for predicting when patients will awaken from coma after receiving targeted therapeutic hypothermia.

Dr Bobrow observed that accurately predicting the patients who will wake up remains a challenge. Commonly physicians try to make that prediction after 24 to 48 hours of hospitalisation. Yet some patients in this study awakened only after 5-7 days after hospital admittance, and many had a good neurological outcome, he added.

The researchers conclude that the avoidance of inappropriate early prognostication “has the potential to save the lives of numerous patients with out-of-hospital cardiac arrest and should be a focus of future guidelines and education.”

In a [media release](#), the University of Arizona Health Sciences described the case of Gary Brauchla (pictured with his wife). In 2012 Gary, 68, went into cardiac arrest as he slept. Gary’s wife, Kathie, called emergency services and started cardiopulmonary resuscitation (CPR). The paramedics restored Gary’s heart rhythm. Gary was in a coma as he was taken to hospital. On arrival, he was treated with coronary stents and therapeutic hypothermia.
While it usually takes 48 hours for these patients to wake up, Brauchla only gradually began to wake up at 72 hours. While he struggled early on with some neurological issues, he has continued to improve, is running 5K races and is now president of the Arizona Cardiac Arrest Survivors Group, where he advocates for and teaches bystander CPR and works to get more automated external defibrillators into the community.

Source: University of Arizona Health Sciences
Image credit: Photo courtesy of Gary Brauchla

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