



**Dominican Hospital**

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**NEWS RELEASE**

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**Dominican Hospital Uses Cold Therapy**

*Newsweek magazine highlighted innovative cardiac-arrest treatment*

SANTA CRUZ, July 31 – When subscribers to Newsweek magazine opened their publication in late July, they read about an innovative treatment for victims of cardiac arrest that uses hypothermia to increase chances of recovery.

Dominican Hospital’s Intensive Care Unit (ICU) has been using that same therapy since April 2007.

“It’s a good addition to our ICU,” said Randall Rea, MD, the unit’s medical director. “It takes a lot of effort and nursing time, but everybody here is eager to proceed with it because the literature suggests it can improve neurological outcomes.”

According to the Newsweek article, “traditional resuscitation triggers a self-destruct mechanism in the cells called apoptosis. Cooling inhibits this process.” Cold therapy, then, slows cell death and for reasons as yet unexplained by science, aids in recovery.

If a patient qualifies for the therapy, a physician will use a mixture of cooling apparatus and chilled saline solution in IV form to induce hypothermia, when the core body temperature is lowered to about 93 degrees Fahrenheit for 24 hours.

In the Newsweek article, a woman makes the choice to have her husband—in a coma after his heart suddenly stopped—transferred from a small community hospital to the larger University of Pennsylvania Hospital, 15 minutes away, so that he could receive the cold-therapy treatment.

“If that happened in Santa Cruz, she wouldn’t have had to make that decision,” said Eric Mauerman, RN, director of critical care at Dominican. “People don’t need to go to Stanford to get that treatment. They can get it right here at Dominican.”

Jay Johnson, MD, a cardiologist on staff with Dominican, spearheaded the effort to bring therapeutic hypothermic treatment to the Hospital.

“In all the studies—which have been fairly small so far—it shows dramatic benefit,” he said. “It also shows very little evidence of harm, so it seems to be very safe. It’s this low-tech therapy that seems to be remarkably beneficial.”

Patients must be evaluated before receiving treatment, and must be in a coma after having their heart restarted post cardiac arrest. The window for this cold therapy is within four hours of collapse, and the inclusion/exclusion criteria is very specific. Dr. Johnson estimates that Dominican sees at least 15 patients who qualify for cold therapy each year.

With a condition that has a roughly 80 percent mortality rate, “we stand to save two to six lives a year, just at our small hospital,” he said.

As always, being aware of what to do in emergencies like cardiac arrest is the best way to increase likelihood of a positive outcome.

“The message we want the public to remember is to act quickly when a person suddenly collapses,” said Sarah Edmundson, RN, director of cardiovascular services. “Quality survival after a cardiac arrest is statistically very low, but we can improve recovery if bystanders call 911 and start resuscitation. The success of hypothermia rests on response time. The American Heart Association reports that only 27 percent of arrests receive help. We can do better than that.”

Dominican is working with a countywide effort, the Save a Friend campaign, to spread that message.

“The chain of survival starts with the understanding that time a quick response minimizes heart and brain injury,” said Ms. Edmundson. “Hypothermia is a promising treatment that will increase the chances of not just surviving, but surviving to live a full life.”

Dominican’s ICU has been among those participating in leading edge practices through the Institute for Healthcare Improvement initiatives, including designing the “perfect ICU” and eliminating ventilator associated pneumonia in ICU patients. IHI founder and CEO Dr. Donald Berwick visited Dominican’s ICU and staff in June.