

Unique use of heart-lung machine saves heart attack victim at UCLA emergency room

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James Manzi and wife, Barbara.

James Manzi is lucky to be alive. When the 79-year-old Brentwood, Calif., resident arrived at Ronald Reagan UCLA Medical Center's emergency room in full cardiac arrest, the medical team tried everything to stabilize him, including shocking his heart 29 times with a defibrillator in an attempt to restore a normal rhythm.

Often, patients whose [heart](#) attacks are as severe as Manzi's don't survive. Only one out of every 10 people who suffer [cardiac arrest](#) outside the hospital lives through the ordeal.

As the team worked, UCLA emergency medicine physician Dr. Eric Savitsky monitored Manzi's diminishing response to their resuscitative efforts using a combination of bedside ultrasound of the heart and clinical indicators. This led to an emergency request for a rarely used but potentially lifesaving technology known as extracorporeal membrane oxygenation, or ECMO.

ECMO involves the use of a sophisticated pump that takes over the functions of the heart and lungs, essentially breathing for the patient by pumping oxygenated blood to vital organs so the lungs can rest. This helps reduce stress on the heart. The device is traditionally used to support adults in cardiac failure waiting for a heart transplant and to help protect the delicate respiratory systems of infants born prematurely.

Fortunately, it worked in Manzi's case too. His heart stabilized, allowing the cardiac team to transport him to the cardiac catheterization lab, where he underwent coronary angioplasty on an artery that was completely blocked. Following the procedure, doctors placed a stent in the artery to keep it open; blood flow was completely restored.

While Manzi's heart function recovered enough that ECMO was removed three days after his heart attack, he had also suffered anoxic brain injury as a result of his brain not getting enough oxygen during the heart attack—a common occurrence after cardiac arrest. After five weeks in the hospital's intensive care unit, he was transferred to UCLA's neuro-rehabilitation unit, where he completed his rehabilitation, making a nearly 100 percent recovery.

At a recent follow-up visit, UCLA cardiologist Dr. William Suh, who

performed the cardiac procedures during Manzi's heart attack, confirmed that the patient is doing remarkably well. Manzi is very grateful to the cardiac and emergency teams that went the extra mile to save his life. He's now looking forward to his 80th birthday on April 6.

"I've always enjoyed my life and now appreciate it even more," said the father of five, who also has six grandchildren. "Just being alive is wonderful."

Manzi underwent heart bypass surgery 20 years ago and wore a pacemaker to help keep his heart rhythms normal. He had been virtually symptom-free for years. But on Jan. 3, as he was having dinner with his wife and friends, the heart attack hit. He was rushed to UCLA.

Only hospitals equipped to treat the most advanced cases have the ability to perform ECMO, since the technology requires a multidisciplinary team of specialized physicians, nurses and perfusionists.

The minimally invasive procedure works by taking deoxygenated blood from a vein in the groin via a catheter, circulating that blood outside the body by means of a tube that passes through an oxygenator, then returning the newly oxygenated blood to body through another catheter into an artery in the groin.

"We are so pleased that this rare use of ECMO helped save Mr. Manzi's life," said Savitsky, a professor of emergency medicine at the David Geffen School of Medicine at UCLA and Ronald Reagan UCLA Medical Center. "ECMO may be a viable option in very select [heart attack patients](#) who come to emergency rooms that are equipped to provide this therapy."

Barbara Manzi, who has been married to James for 23 years, said that once the doctors and nurses returned her husband to her, she was never

going to let him go. She is very grateful to the UCLA team for saving his life and calls the nurses her "angels in green"—a reference to the color of their scrubs.

"This is an amazing example of a dedicated UCLA team going above and beyond conventional lifesaving measures," said Suh, an assistant clinical professor of medicine and interventional cardiology with Geffen School of Medicine at UCLA and Ronald Reagan UCLA Medical Center. "We are thrilled that Mr. Manzi is doing well."

James and Barbara first met at a bar mitzvah in Texas. James said that it only took one dance and he was smitten. Just a few days later, he sent her three dozen yellow roses commemorating that first meeting in the Lone Star State, and they have been together ever since.

The UCLA team hopes to help more patients like Manzi.

The emergency, cardiology and cardiac surgery departments at Ronald Reagan UCLA Medical Center are developing a protocol for the appropriate use of ECMO for select [heart attack](#) patients in the emergency room setting. Hopefully, they say, this can lead to better survival in those patients who arrive at the hospital in cardiac arrest.

Provided by University of California, Los Angeles

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