

# *Alcor Completes Its Seventh Case in 2002*



by Charles Platt

In May 1990, Alcor signed up a self-made 31-year-old businessman in Florida whose favorite activities were golfing and fishing. In this account, I'll refer to him by his Alcor bracelet number: A-1235.

Tragically, when he was only a few years over 40, he developed a tumor in his mouth that spread progressively to his neck and the surrounding skin. Earlier this year, after radiation treatments were unsuccessful, he was told that no conventional cure was possible.

Many cryonicists are stubborn, and A-1235 was no exception. This had worked to his advantage initially—his stubbornness caused him to reject the inevitability of death. But now that he had terminal cancer, his stubbornness jeopardized his chance of successful cryopreservation. He simply refused to believe that he was going to die. When we suggested that he should consider relocating nearer to Alcor, he adamantly rejected the idea. In fact, he didn't even want to speak to us.

Fortunately his wife is a truly exceptional person. Although she is a Catholic, she embraced her husband's belief in cryonics and was determined that if he wanted to be cryopreserved, he should receive the best possible treatment.

By the middle of this year, the cancer had progressed to the point where A-1235 could not travel easily. Merely maintaining his head in a normal posture could cause him severe pain. His wife, however, made arrangements for an air ambulance to fly him to Scottsdale, and she found a house that she could rent just ten minutes north of Alcor's facility. She took these initiatives entirely on her own and presented them to her husband as a fait-accompli.

They moved to Arizona at the beginning of October. On October 15, Alcor CEO Jerry Lemler, M.D. accompanied A-1235 and his wife to a local oncologist who confirmed that no further treatment was possible and recommended an IV line. Easy intravenous access can be important to terminal cancer patients, since it facilitates delivery of painkillers. IV access is doubly important for cryopatients because we hope to supply medications as rapidly as possible after death is pronounced, and finding a vein in a patient who has no pulse and virtually no blood pressure can

be impossible. Still, A-1235 remained as stubborn as ever: He refused to have an IV installed. He still seemed to feel that he wasn't going to die.

By October 18, he was enrolled in a home-hospice program. The hospice administrators turned out to be exceptionally helpful and promised that if the patient experienced cardiac arrest and his wife called the hospice, the hospice staff would pronounce death over the phone, enabling us to transport the patient to Alcor immediately.

This combination of factors would enable an unprecedentedly short transport time. Since all our medical and technical advisors agree that the single biggest factor increasing the risk of brain damage is a prolonged period of zero blood flow at a relatively warm temperature, we were excited that we would be able to give A-1235 rapid treatment. On the other hand, we were now under exceptional pressure to respond promptly. Our operating room had to be ready at a moment's notice. Our surgeon had to arrive at Alcor within 15 minutes of being called, day or night. Our other local staff also had to be immediately available. We needed two people, minimum, to drive the Alcor ambulance to the patient's home as soon as death was pronounced. I spent a total of about ten nights camping out at the Alcor facility so that I could respond with Hugh Hixon without any delay.

We would have preferred to do a standby at the patient's home, where there were two guest rooms, but this was impossible for several reasons. First, A-1235 had stated in his sign-up documents that he did not want, and would not pay for, a standby. Second, his wife told us she felt our presence in the house would be intrusive. And third, we had no idea when A-1235 might be likely to die.

His tumor was dangerously close to his left carotid artery, raising the possibility that it could erode the artery and cause a catastrophic hemorrhage. In this scenario, death would be rapid, with no warning. On the other hand, if the artery was not eroded, the patient could live for many more weeks. None of his major organs had been affected, and there was no sign of infection. Apart from the terrible damage that the cancer had inflicted on

his neck, he seemed alert and active.

On November 14, I visited the patient and found him still surprisingly lively and cheerful. Yet the hospice nurse whom I met at the house was skeptical about his prospects. She noted his substantial weight loss and a rash of new tumors around his neck and shoulder and guessed he would die before Thanksgiving. The only good news was that she didn't believe a hemorrhage was likely. If it was going to happen, it would have happened already.

Meanwhile, during this visit, A-1235 talked casually about visiting Alcor to have a look around the facility. He seemed to have disassociated himself from his condition, as if the wound in his neck belonged to somebody else. He still refused an IV and still acted as if he didn't expect to die.

At Alcor, I mapped contingency plans. Our first priority is always to inject heparin, to minimize blood clotting; but if we had too much trouble achieving a successful postmortem intravenous injection (as I expected), we wouldn't want to waste time. We would move the patient directly to the ambulance, into the ice bath, and then rush the patient to Alcor, where (I hoped) a surgeon would be ready to expose a vein so that medications could be injected directly into it. We would then do chest compressions, ideally at the same time that the surgeon turned his attention to raising the carotids for cryoprotective perfusion. This scenario didn't please me, because it contained too many unknowns. How much blood clotting would occur during even the short transport, plus the time taken for surgical exposure of a vein? When we commenced surgery on the neck, would we even be able to cannulate the right carotid, which was probably embedded in the tumor mass?

By November 21, the patient's condition had deteriorated. He was semiconscious for most of each day and barely responsive. His blood pressure was still a reasonably healthy 130 over 80, but the hospice nurse told me, "I feel he is getting ready to die. I don't think it will be long, now."

The next day, when I visited the house, the nurse reported that blood pressure had fallen to 99 over 73, and oxygen saturation (a measurement of oxygen in the blood) varied between 84 and 87. (A normal value is above 93.) Also, significantly, his temperature, measured tympanically, had risen to 100.4. But he was still able to stand up and step on a bathroom scale when I asked him to do so, and he was lucid and responsive when we raised the question, yet again, of allowing an IV line.

This time, his wife, who had power of attorney for health care, was extremely insistent. Finally A-1235 agreed that IV access could be installed. But it was now Friday afternoon. The patient's doctor would have to request the IV, and the patient would normally have to visit a hospital as an outpatient—which was now out of the question. The hospice nurse recommended a service that would perform the procedure in the home, but when I called the service, they denied that they would do this. We realized that we would not be able to get what we wanted over the weekend.

The next day, Saturday, I called Tanya Jones, a former di-

rector of suspension services at Alcor, and asked her to join us. She promised to fly in the next day. Tanya has managed at least 15 cryonics cases for Alcor, and has done a lot of work in the operating room. I needed her experienced assistance.

By Sunday, November 24, the patient's oxygen saturation had fallen as low as 76. There was still no evidence of infection, but as the hospice nurse put it, "Something is going on here." I sensed that after almost two months, we were now near the end.

On Monday and Tuesday, with help from Tanya and from Dr. Jerry Lemler, we attempted repeatedly to get an IV installed. Eventually we began to suspect that the service was reluctant to comply because they had learned that the primary purpose of the IV would be to facilitate postmortem cryonics medications. Either way, we were still unable to get what we wanted.

On Wednesday, November 27, oxygen saturation was still in the mid-70s, the patient's urine was brown, his temperature was 104, and his pulse rate was up at 150. Clearly, this condition was unsustainable. After a discussion with Tanya, the patient's wife reversed her former decision and allowed myself, Tanya, and Hugh Hixon to relocate at her home. We parked Alcor's ambulance at the end of the street, just a minute's walk away, and made ourselves comfortable in the guest rooms.

By 7 p.m. the patient's temperature was up to 106, and Tanya drew and mixed our three most important postmortem medications. Meanwhile the patient's wife called for a hospice nurse, because A-1235 was now moaning gently, and she was concerned that he was in distress.

When the nurse arrived, I quickly explained our procedures, and she understood immediately. "It's just like resuscitation," she said, with a shrug. She started discussing the best way for us to inject medications postmortem. During this discussion, A-1235 started breathing erratically. He had previously exhibited apnea, but this was worse. As I watched him, he ceased breathing entirely. The nurse immediately pronounced legal death. "Are you sure?" I cautioned her. She applied her stethoscope and found no heartbeat. The time was approximately 8:20 p.m.

In accordance with the plan that we had established previously, Hugh attempted to do a "subclavian stick"—accessing a vein near the collarbone—while I ran out to fetch the ambulance. I backed it into the driveway of the house, then realized that I had allowed insufficient room to get the MARC (Alcor's Mobile Advanced Recovery Cart) out of the rear of the vehicle. I turned the key to restart the ambulance—and nothing happened.

I had always dreaded this kind of situation. My first encounter with the Alcor ambulance had been back in 1993, when I drove it to collect a patient from the county coroner in Los Angeles. The venerable vehicle had not improved with age. Many times, Alcor personnel had discussed replacing it—yet there had always been a higher financial priority. And, to be fair, the vehicle had always responded. It had never failed to start, until now.

I ran into the house, where I was surprised and pleased to find that Hugh had managed to inject all three medications, while Tanya was doing chest compressions with a hand-held CardioPump, and the patient's wife was in another room, being

comforted by the hospice nurse. I told Hugh that the ambulance was immobilized. He went outside, and I took over the CardioPump. Tanya retrieved our stretcher—a plastic board of the type that is normally used to retrieve mountain climbers from remote areas. We managed to move the patient onto the board and strapped him quickly into position. Dr. Jerry Lemler arrived to assist us.

Hugh failed to restart the ambulance, but fortunately we had alternate transportation available. Less than 15 minutes later, our patient was at the Alcor facility.

All our staff had received emergency calls, and they were ready at the facility. Surgery commenced on the patient's neck, and we were astonished to find that the right carotid had been completely subsumed by the tumor. The blood vessel simply was not there anymore. Our surgeon, who has had a long career in brain surgery, told us that he had seen such cases. In a relatively young patient, one carotid can gradually take over the entire task of supplying blood to the whole brain.

Probably for the first time in Alcor's history, we perfused a patient through only his left carotid. Surprisingly, the results were excellent. We achieved almost unprecedented flow, and there was no sign of blood clotting. We saw no evidence of asymmetry in the two burr holes. We reached the terminal temperature an hour before we reached terminal perfusate concentration. So far as we could tell, the overall results were very good.

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Like all cryonics cases, this one was full of unexpected reversals and surprises. I would never have expected the Catholic wife of a long-time Alcor member to be the prime force impelling him to receive the best possible cryopreservation, even to the extent of chartering an air ambulance at huge expense, despite his repeated denials that he needed to move. I still feel amazed by the strength and devotion of this remarkable woman.

The close proximity that she enabled was a mixed blessing. The patient reached our operating room with great rapidity—about half an hour after death was pronounced—yet this moment had been preceded by many weeks in which Alcor personnel had to be almost instantly available on a 24-hour basis. By

contrast, when we do a remote standby, we know that we have at least six hours to gather everyone at the facility and make the operating room ready to receive the patient.

Personally, I feel a bit too old to be sleeping on a camping pad at Alcor; yet in a case where we were going to be counting minutes instead of hours, I wasn't willing to stay in a nearby motel. In the future, we plan to establish a crew room at the Alcor facility to enable staff to sleep on-site if necessary.

The fault in our ambulance has been fixed, and we immediately acquired another vehicle that can provide temporary backup service for patient transport if necessary. Funds have been allocated to buy a permanent replacement for the ambulance. Never again will we be in a position where we depend on one vehicle.

Our experience in this case will make us better able to respond to nearby cases in the future. In fact, I am more convinced than ever that the only rational option for a terminal cryonics patient is to relocate near the Alcor facility. Alcor's unique attribute is its dedication to minimize brain injury. Reducing the transport time from hours to minutes is the single most important step you can take toward this goal.

Unfortunately, a choice that seems rational to an Alcor member today may not seem acceptable to the same person in the future. Patient A-1235 would not have relocated until it was too late if his very wonderful wife hadn't insisted upon it. He couldn't bring himself to believe that he would die in his early 40s, and his denial is not unique. Any of us might fall into the same behavioral trap, no matter how rational we think we will be.

The lesson, here, is clear: All terminal patients are likely to rely on the good will, commonsense, and devotion of people close to them. We should take note and plan accordingly.

My thanks to everyone who assisted Alcor at various times in this case: Keith Edic, William Faloon, John Grigg, Dr. Steve Harris, Hugh Hixon, Joe Hovey, Tanya Jones, Bobby June, Dr. Jose Kanshepolsky, Dr. Jerry Lemler, Paula Lemler, Mike Perry, Mike Read, Dr. Michael Riskin, Steve Rude, Jerry Searcy, James Sikes, Jessica Sikes, and Mathew Sullivan.

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