

When Death Becomes Life: Notes from a Transplant Surgeon
By Joshua D. Mezrich

HarperCollins, 2019, hardcover, \$27.99
372 pages, notes and index, ISBN 978-0062656209

Joshua Mezrich is a practicing transplant surgeon who draws on his experiences, and those of his patients, to provide a “here’s where we’re at” moment in the story of transplant medicine. In so doing, he explains what it is like to practice while telling the stories of his patients, donors, and the pioneering surgeons who persisted in the face of failure to make what Mezrich does a work of healing. Written for a popular audience, *When Death Becomes Life* is perhaps the most accessible work yet on the modern history of organ transplantation and what the current “standard of care” actually looks like. Indeed, it rounds out a “trinity” of quality books about the transplant experience, this one from the surgeon’s experience — the other two being *Kidney to Share* (the living donor’s experience), and *The Power of Two* (the recipient’s experience).

The opening chapter provides a snapshot of the practice today. The teams get an evening call about a young motorcycle accident victim who died from a traumatic brain injury. On site, the competition between the “chest” and “abdomen” teams manifests in protectiveness over their “turf” — an ample portion of the inferior vena cava, for example. The donor’s chest is opened “stem to stern” and the abdominal organs are removed first, each of which is flushed with a cooling solution while buckets of ice are poured into the donor’s body along the way. After departing, Mezrich and his team find themselves flying in conditions that have grounded all other commercial aircraft. Although it threatens to end in catastrophe, their flight has emergency authorization to deliver the liver and kidneys to a sick diabetic who, meanwhile, is being prepped for surgery. That is just the beginning of a remarkable project that is not only useful for informing the public about how transplant medicine actually works (which is its primary value), but also illuminating for the history of research ethics as a case study about how the risks taken by the pioneering surgeons ended up being rewarded.

The book is a mix of history and memoir divided into six parts. Part one explains how today’s routine procedures were made possible by Alexis Carrel’s breakthroughs in stitching blood vessels together. Part two surveys the history of renal transplantation beginning with Willem Kolff’s early dialysis methods, continuing with Peter Medwar’s tissue-type discoveries, and ending with the first successful transplant performed by Joseph Murray between identical twins. Part three moves through the familiar story of heart transplants and the less familiar story of lung and pancreas transplants; the treasure in this section is the material drawn from the author’s interview with the late Thomas Starzl who reflected on his stubborn ability to continue attempting liver

transplants despite catastrophic failures and personal self-doubt. Those familiar with the observations of Renee Fox and Judith Swazey that the early transplanters had “the courage to fail” — or in Mezrich’s view, “the courage to succeed” — will appreciate the fresh perspective on this theme from an insider’s point of view. Parts four through six explain what transplant medicine is like today as it relates to the recipients, donors, and surgeons (practicing and aspiring). This half of the book, which I focus on below, is invaluable for making a more informed decision to donate in general. As a whole, it is an oasis of expert testimony in the desert of knowledge the public mind has wandered through the last forty years.

Unlike other surgical areas, transplant surgeons develop long-term relationships with their patients. While the operation is the most consequential event in that relationship, the bonds of care are formed long before and after the graft is sewed in. These bonds can lead one to say some shocking things: “I had been hoping to get Jason a perfect liver,” says Mezrich, “maybe from a twenty-two-year-old who’d died in a motorcycle accident or from a gunshot wound to the head.” To get a liver, the patient has to be sick enough to be prioritized, but not so sick as to be disqualified from consideration. Apart from a few exceptions, both doctor and patient must navigate this macabre Goldilocks zone together. Waiting for a “younger” organ to become available threatens the patient’s life; accepting a less healthy one may secure fewer benefits and more burdens. Either way, complications from surgery or an underlying condition may erode function and the surgeon and patient find themselves going through the whole process again.

One such underlying condition is alcoholism. Although recognized as a disease, stigma surrounding it continues to raise questions in the public’s mind about allocating livers to alcoholics. The general rule is to require at least six months of sobriety, but what about patients who won’t survive the waiting period? The stories of “Lisa” and “Herb” are told to help answer the question. Lisa receives a healthy liver but doesn’t survive past five years, dying shortly after telling her family what everyone already knew: she had a drinking problem and was too ashamed to admit it. Herb, despite being headstrong and self-reliant, comes to see he has a problem and seeks long-term help; what does not help is the threat from his surgeon to “take back the liver” if he relapses. The key is for the patient to have insight into their condition and commit to change. Relapse should be treated like any other setback in a chronic illness, not an unforgivable affront to the donation system. The gift of life should not be withheld from alcoholics, but given upon the condition that the recipient moves past denial and seeks help.

Since we are better at treating various liver diseases, more alcohol-related transplants are being performed, which has had a crowding-out effect on those who suffer from rare, chronic conditions. The “model for end stage liver disease” (MELD) score used to allocate livers is based on one’s risk of dying on the waitlist without any regard to

debilitation or “quality of life” considerations. Mezrich tells the story of “Nate,” an aspiring surgeon, whose MELD score is relatively low, but whose primary sclerosing cholangitis causes severe itching and multiple hospitalizations. People like Nate have two options: (1) the listing committee can grant a MELD exception by adjudicating his case in a more holistic way, or (2) one of his family members can donate half of their liver to him directly. Nate benefits from the first way, which raises questions about the fairness of the process. Nonetheless, there is a need to incorporate more than just lab scores associated with mortality risk in the allocation system for patients with rare conditions.

The most moving chapter in the book is about “Michaela,” a college-aged white woman from rural Wisconsin who receives a liver from “CL,” a young black man who was tough on the streets, but tender with his mother; he promised his mother that no matter what happens “he will always be with her.” The story illustrates the complexities of surrogate decision-making on behalf of others who haven’t documented their wishes about donation, the recipient’s desire to know more about the donor and his family, the hesitancy of the aggrieved to respond, and the compelling beauty of both parties “adopting” one another as family members. CL’s mother believes he kept his promise to “always be with her” as his liver lives on in Michaela. Michaela, reflecting on how she became so intimately connected with someone so unlike herself, tells people that despite our social differences “we are all the same on the inside.” It’s a powerful message. Yet, absent from this section is how it might relate to the fact that black Americans are less likely to benefit from the allocation system than white Americans. According to the Department of Health and Human Services, “The number of organ transplants performed on blacks in 2020 was 27.7 percent of the number of blacks currently waiting for a transplant. The number of transplants performed on whites was 47.6 percent of the number currently waiting.”¹ While this difficult issue goes beyond the scope of his project, one will wonder what Mezrich thinks about it and how the discipline should respond.

His stories about the donors evoke complicated feelings about complicated questions. After introducing the particulars of donation-after-circulatory-death (or DCD) protocols he raises the question, “If DCD patients are going to die anyway, why don’t we just take their organs out while they are intubated, under anesthesia?” Instead of giving a philosophical answer, he tells the story of a two-year-old who died tragically from a throat infection. His parents played his bedtime music and read him his favorite bedtime story surrounded by his stuffed animals. After the breathing tube was removed and he breathed his last, he was laid on the operating table, kissed one last time, and the parents walked out; Mezrich then writes, “and we rapidly cut him from stem to stern

¹ <https://minorityhealth.hhs.gov/omh/browse.aspx?vl=4&vlid=27>

and removed his beautiful organs.” It’s hard not to be repulsed by this. Nonetheless, this story, and the one told after it about a sixty-year-old donor, indicates that Mezrich and his team are aware of the danger of being perceived as “vultures.” Yet the families with whom they consult don’t see them that way; they want to see life come from their loved one’s death. For the two-year-old, Mezrich says they “had to get the organs out perfectly” because they “owed that to him, his family, and our recipients.” “In this field,” he writes, “we take from death. Death is our starting point.” The line between life and death is morally important, then, because it serves to distinguish the kind of care the patient is owed. Yet Mezrich’s discussion of “brain death” — which was initially rejected by the early transplanters at the 1966 CIBA meeting — is a story about how it was later accepted as “legal death” throughout the world because of its utility for transplant. The reader will wonder if the death criteria used in organ donation really indicate death, or if they are just useful fictions to facilitate donation.

The rest of the book addresses the risks undertaken by live donors, how the parties involved deal with surgical complications, the possibilities of procuring organs from animals, and the responsibilities surgeons face in determining what risks healthy donors are allowed to take, developing the courage to “try to again” after a poor outcome, respecting animal welfare concerns, and managing the conflict between the drive to meet patient need and the drive to innovate new therapies.

Bioethicists tend to write abstractly about the topics Mezrich raises, but rarely do they interact with the first-person testimony of a practitioner in the field. This is lamentable. Perhaps the reason for this involves distrust that arises between parties that, on the part of practitioners, see themselves as dauntless boundary-pushers that go the extra mile for their patients and, on the part of bioethicists, as pesky watchdogs that call for social responsibility. Mezrich’s book goes a long way, however, in showing that the two parties have much in common: concern for the welfare of the patients involved and the production of useful medical knowledge.