

Facing Our Mistakes

This 1984 article in the New England Journal of Medicine is the writing for which I am most notorious in the medical profession. It's about the inevitability of making serious mistakes as a physician, the agony it brings to the physician, and our usual inability to deal with it. Although the article received wide coverage in the medical literature, it would be over ten years before other doctors began writing about their mistakes publicly. The article became one of the chapters in my first book, Healing the Wounds.

On a warm July morning I finish my rounds at the hospital around nine o'clock and walk across the parking lot to the clinic. After greeting Jackie, I look through the list of my day's appointments and notice that Barb Daily will be in for her first prenatal examination. "Wonderful," I think, recalling the joy of helping her deliver her first child two years ago. Barb and her husband, Russ, had been friends of mine before Heather was born, but we grew much closer with the shared experience of her birth. In a rural family practice such as mine, much of every weekday is taken up with disease; I look forward to the prenatal visit with Barb, to the continuing relationship with her over the next months, to the prospect of birth.

At her appointment that afternoon, Barb seems to be in good health, with all the signs and symptoms of pregnancy: slight nausea, some soreness in her breasts, a little weight gain. But when the nurse tests Barb's urine to determine if she is pregnant, the result is negative. The test measures the level of a hormone that is produced by a woman and shows up in her urine when she is pregnant. But occasionally it fails to detect the low levels of the hormone during early pregnancy. I reassure Barb that she is fine and schedule another test for the following week.

Barb leaves a urine sample at the clinic a week later, but the test is negative again. I am troubled. Perhaps she isn't pregnant. Her missed menstrual period and her other symptoms could be a result of a minor hormonal imbalance. Maybe the embryo has died within the uterus and a miscarriage is soon to take place. I could find out by ordering an ultrasound examination. This procedure would give me a "picture" of the uterus and of the embryo. But Barb would have to go to Duluth for the examination. The procedure is also expensive. I know the Dailys well enough to know they have a modest income. Besides, by waiting a few weeks, I should be able to find out for sure without the ultrasound: either the urine test will be positive or Barb will have a miscarriage. I call her and tell her about the negative test result, about the possibility of a miscarriage, and about the necessity of seeing me again if she misses her next menstrual

period.

It is, as usual, a hectic summer; I think no more about Barb's troubling state until a month later, when she returns to my office. Nothing has changed: still no menstrual period, still no miscarriage. She is confused and upset. "I feel so pregnant," she tells me. I am bothered, too. Her uterus, upon examination, is slightly enlarged, as it was on the previous visit. But it hasn't grown any larger. Her urine test remains negative. I can think of several possible explanations for her condition, including a hormonal imbalance or even a tumor. But the most likely explanation is that she is carrying a dead embryo. I decide it is time to break the bad news to her.

"I think you have what doctors call a 'missed abortion,'" I tell her. "You were probably pregnant, but the baby appears to have died some weeks ago, before your first examination. Unfortunately, you didn't have a miscarriage to get rid of the dead tissue from the baby and the placenta. If a miscarriage doesn't occur within a few weeks, I'd recommend a re-examination, another pregnancy test, and if nothing shows up, a dilation and curettage procedure to clean out the uterus.

Barb is disappointed; there are tears. She is college-educated, and she understands the scientific and technical aspects of her situation, but that doesn't alleviate the sorrow. We talk at some length and make an appointment for two weeks later.

When Barb returns, Russ is with her. Still no menstrual period; still no miscarriage; still another negative pregnancy test, the fourth. I explain to them what has happened. The dead embryo should be removed or there could be serious complications. Infection could develop; Barb could even become sterile. The conversation is emotionally difficult for all three of us. We schedule the dilation and curettage for later in the week.

Friday morning, Barb is wheeled into the small operating room of the hospital. Barb, the nurses, and I all know one another—it's a small town. The atmosphere is warm and relaxed; we chat before the operation. After Barb is anesthetized, I examine her pelvis again. Her muscles are now completely relaxed, and it is possible to perform a more reliable examination. Her uterus feels bigger than it did two days ago; it is perhaps the size of a small grapefruit. But since all the pregnancy tests were negative and I'm so sure of the diagnosis, I ignore the information from my fingertips and begin the operation.

Dilation and curettage, or D & C, is a relatively simple surgical procedure performed thousands of times each day in this country. First, the cervix is stretched by pushing smooth metal rods of increasing diameter in and out of it. After about five minutes of this, the cervix has expanded enough so that a curette can be inserted through it into the uterus. The curette is another metal rod, at the end of which is an oval ring about an inch at its widest diameter. It is used to scrape the walls of the uterus. The operation is done completely by feel after the cervix has been stretched, since it is still too narrow to see through.

Things do not go easily this morning. There is considerably more blood than usual, and it is only with great difficulty that I am able to extract anything. What should take ten or fifteen minutes stretches into a half-hour. The body parts I remove are much larger than I expected, considering when the embryo died. They are not bits of decomposing tissue. These are parts of a body that was recently alive!

I do my best to suppress my rising panic and try to complete the procedure. Working blindly, I am unable to evacuate the uterus completely; I can feel more parts inside but cannot remove them. Finally I stop, telling myself that the uterus will expel the rest within a few days.

Russ is waiting outside the operating room. I tell him that Barb is fine but that there were some problems with the operation. Since I don't completely understand what happened, I can't be very helpful in answering his questions. I promise to return to the hospital later in the day after Barb has awakened from the anesthesia.

In between seeing other patients that morning, I place several almost frantic phone calls, trying to piece together what happened. Despite reassurances from a pathologist that it is "impossible" for a pregnant woman to have four consequent negative pregnancy tests, the realization is growing that I have aborted Barb's living child. I won't know for sure until the pathologist has examined the fetal parts and determined the baby's age and the cause of death. In a daze, I walk over to the hospital and tell Russ and Barb as much as I know for sure without letting them know all I suspect. I tell them that more tissue may be expelled. I can't face my own suspicions.

Two days later, on Sunday morning, I receive a tearful call from Barb. She has just passed some recognizable body parts; what is she to do? She tells me that the bleeding has stopped

now and that she feels better. The abortion I began on Friday is apparently over. I set up an appointment to meet with her and Russ to review the entire situation.

The pathologist's report confirms my worst fears: I aborted a living fetus. It was about eleven weeks old. I can find no one who can explain why Barb had four negative pregnancy tests. My meeting with Barb and Russ later in the week is one of the hardest things I have ever been through. I described in some detail what I did and what my rationale had been. Nothing can obscure the hard reality: I killed their baby.

Politely, almost meekly, Russ asks whether the ultrasound examination would have shown that Barb was carrying a live baby. It almost seems that he is trying to protect my feelings, trying to absolve me of some of the responsibility. "Yes," I answer, "if I had ordered the ultrasound, we would have known the baby was alive." I cannot explain why I didn't recommend it.

Mistakes are an inevitable part of everyone's life. They happen; they hurt—ourselves and others. They demonstrate our fallibility. Shown our mistakes and forgiven them, we can grow, perhaps in some small way become better people. Mistakes, understood this way, are a process, a way we connect with one another and with our deepest selves.

But mistakes seem different for doctors. This has to do with the very nature of our work. A mistake in the intensive care unit, in the emergency room, in the surgery suite, or at the sickbed is different from a mistake on the dock or at the typewriter. A doctor's miscalculation or oversight can prolong an illness, or cause a permanent disability, or kill a patient. Few other mistakes are more costly.

Developments in modern medicine have provided doctors with more knowledge of the human body, more accurate methods of diagnosis, more sophisticated technology to help in examining and monitoring the sick. All of that means more power to intervene in the disease process. But modern medicine, with its invasive tests and potentially lethal drugs, has also given doctors the power to do more harm.

Yet precisely because of its technological wonders and near-miraculous drugs, modern medicine has created for the physician an expectation of perfection. The technology seems so

exact that error becomes almost unthinkable. We are not prepared for our mistakes, and we don't know how to cope with them when they occur.

Doctors are not alone in harboring expectations of perfection. Patients, too, expect doctors to be perfect. Perhaps patients have to consider their doctors less prone to error than other people: how else can a sick or injured person, already afraid, come to trust the doctor? Further, modern medicine has taken much of the treatment of illness out of the realm of common sense; a patient must trust a physician to make decisions that he, the patient, only vaguely understands. But the degree of perfection expected by patients is no doubt also a result of what we doctors have come to believe about ourselves, or better, have tried to convince ourselves about ourselves.

This perfection is a grand illusion, of course, a game of mirrors that everyone plays. Doctors hide their mistakes from patients, from other doctors, even from themselves. Open discussion of mistakes is banished from the consultation room, from the operating room, from physicians' meetings. Mistakes become gossip, and are spoken of openly only in court. Unable to admit our mistakes, we physicians are cut off from healing. We cannot ask for forgiveness, and we get none. We are thwarted, stunted; we do not grow.

During the days, and weeks, and months after I aborted Barb's baby, my guilt and anger grew. I did discuss what had happened with my partners, with the pathologist, with obstetric specialists. Some of my mistakes were obvious: I had relied too heavily on one test; I had not been skillful in determining the size of the uterus by pelvic examination; I should have ordered the ultrasound before proceeding to the D & C. There was no way I could justify what I had done. To make matters worse, there were complications following the D & C, and Barb was unable to become pregnant again for two years.

Although I was as honest with the Dailys as I could have been, and although I told them everything they wanted to know, I never shared with them my own agony. I felt they had enough sorrow without having to bear my burden as well. I decided it was my responsibility to deal with my guilt alone. I never asked for their forgiveness.

Doctors' mistakes, of course, come in a variety of packages and stem from a variety of causes. For primary care practitioners, who see every kind of problem from cold sores to cancer, the mistakes are often simply a result of not knowing enough. One evening during my years in Minnesota a local boy was brought into the emergency room after a drunken driver had

knocked him off his bicycle. I examined him right away. Aside from swelling and bruising of the left leg and foot, he seemed fine. An x-ray showed what appeared to be a dislocation of the foot from the ankle. I consulted by telephone with an orthopedic specialist in Duluth, and we decided that I could operate on the boy. As was my usual practice, I offered the patient and his mother (who happened to be a nurse with whom I worked regularly) a choice: I could do the operation or they could travel to Duluth to see the specialist. My pride was hurt when she decided to take her son to Duluth.

My feelings changed considerably when the specialist called the next morning to thank me for the referral. He reported that the boy had actually suffered an unusual muscle injury, a posterior compartment syndrome, which had twisted his foot and caused it to appear to be dislocated. I had never even heard of such a syndrome, much less seen or treated it. The boy had required immediate surgery to save the muscles of his lower leg. Had his mother not decided to take him to Duluth, he would have been permanently disabled.

Sometimes a lack of technical skill leads to a mistake. After I had been in town a few years, the doctor who had done most of the surgery at the clinic left to teach at a medical school. Since the clinic was more than a hundred miles from the nearest surgical center, my partners and I decided that I should get some additional training in order to be able to perform emergency surgery. One of my first cases after training was a young man with appendicitis. The surgery proceeded smoothly enough, but the patient did not recover as quickly as he should have, and his hemoglobin level (a measure of the amount of blood in the system) dropped slowly. I referred him to a surgeon in Duluth, who, during a second operation, found a significant amount of old blood in his abdomen. Apparently I had left a small blood vessel leaking into the abdominal cavity. Perhaps I hadn't noticed the oozing blood during surgery; perhaps it had begun to leak only after I had finished. Although the young man was never in serious danger, although the blood vessel would probably have sealed itself without the second surgery, my mistake had caused considerable discomfort and added expense.

Often, I am sure, mistakes are a result of simple carelessness. There was the young girl I treated for what I thought was a minor ankle injury. After looking at her x-rays, I sent her home with what I diagnosed as a sprain. A radiologist did a routine follow-up review of the x-rays and sent me a report. I failed to read it carefully and did not notice that her ankle had been broken. I first learned about my mistake five years later when I was summoned to a court hearing. The fracture I had missed had not healed properly, and the patient had required extensive treatment and difficult surgery. By that time I couldn't even remember her original visit and had to piece together what had happened from my records.

Some mistakes are purely technical; most involve a failure of judgment. Perhaps the worst kind involve what another physician has described to me as “a failure of will.” She was referring to those situations in which a doctor knows the right thing to do but doesn’t do it because he is distracted, or pressured, or exhausted.

Several years ago, I was rushing down the hall of the hospital to the delivery room. A young woman stopped me. Her mother had been having chest pains all night. Should she be brought to the emergency room? I knew the mother well, had examined her the previous week, and knew of her recurring bouts of chest pains. She suffered from angina; I presumed she was having another attack.

Some part of me knew that anyone with all-night chest pains should be seen right away. But I was under pressure. The delivery would make me an hour late to the office, and I was frayed from a weekend on call, spent mostly in the emergency room. This new demand would mean additional pressure. “No,” I said, “take her over to the office, and I’ll see her as soon as I’m done here.” About twenty minutes later, as I was finishing the delivery, the clinic nurse rushed into the room. Her face was pale. “Come quick! Mrs Helgeson just collapsed.” I sprinted the hundred yards to the office, where I found Mrs Helgeson in cardiac arrest. Like many doctors’ offices at the time, ours did not have the advanced life-support equipment that helps keep patients alive long enough to get them to a hospital. Despite everything we did, Mrs Helgeson died.

Would she have survived if I had agreed to see her in the emergency room, where the requisite staff and equipment were available? No one will ever know for sure. But I have to live with the possibility that she might not have died if I had not had “a failure of will.” There was no way to rationalize it: I had been irresponsible and a patient had died.

Many situations do not lend themselves to a simple determination of whether a mistake has been made. Seriously ill, hospitalized patients, for instance, require of doctors almost continuous decision-making. Although in most cases no single mistake is obvious, there always seem to be things that could have been done differently or better: administering more of this medication, starting that treatment a little sooner . . . The fact is that when a patient dies, the physician is left wondering whether the care he provided was adequate. There is no way to be certain, for it is impossible to determine what would have happened if things had been done differently. Often it is difficult to get an honest opinion on this even from another physician, most doctors not wanting to be perceived by their colleagues as judgmental or perhaps fearing similar judgments upon themselves. In the end, the physician has to suppress the guilt and move on to the next patient.

A few years after my mistake with Barb Daily, Maiya Martinen first came to see me halfway through her pregnancy. I did not know her or her husband well, but I knew that they were solid, hard-working people. This was to be their first child. When I examined Maiya, it seemed to me that the fetus was unusually small, and I was uncertain about her due date. I sent her to Duluth for an ultrasound examination which was by now routine for almost any problem during pregnancy—and an examination by an obstetrician. The obstetrician thought the baby would be small, but he thought it could be safely delivered in the local hospital.

Maiya's labor was uneventful, except that it took her longer than usual to push the baby through to delivery. Her baby boy was born blue and floppy, but he responded well to routine newborn resuscitation measures. Fifteen minutes after birth, however, he had a short seizure. We checked his blood sugar level and found it to be low, a common cause of seizures in small babies who take longer than usual to emerge from the birth canal. Fortunately, we were able to put an IV easily into a scalp vein and administer glucose, and baby Marko seemed to improve. He and his mother were discharged from the hospital several days later.

At about two months of age, a few days after I had given him his first set of immunizations, Marko began having short spells. Not long after that he started to have full-blown seizures. Once again the Martinens made the trip to Duluth, and Marko was hospitalized for three days of tests. No cause for the seizures was found, but he was placed on medication. Marko continued to have seizures, however. When he returned for his second set of immunizations, it was clear to me that he was not doing well.

The remainder of Marko's short life was a tribute to the faith and courage of his parents. He proved severely retarded, and the seizures became harder and harder to control. Maiya eventually went East for a few months so Marko could be treated at the National Institutes of Health. But nothing seemed to help, and Maiya and her baby returned home. Marko had to be admitted frequently to the local hospital in order to control his seizures. At two o'clock one morning I was called to the hospital: the baby had had a respiratory arrest. Despite our efforts, Marko died, ending a year-and-a-half struggle with life.

No cause for Marko's condition was ever determined. Did something happen during the birth that briefly cut off oxygen to his brain? Should Maiya have delivered at the high-risk obstetric center in Duluth, where sophisticated fetal monitoring is available? Should I have sent Marko to the Newborn Intensive Care Unit in Duluth immediately after his first seizure in the delivery room? I subsequently learned that children who have seizures should not routinely be

immunized. Would it have made any difference if I had never given Marko the shots? There were many such questions in my mind and, I am sure, in the minds of the Martinens. There was no way to know the answers, no way for me to handle the guilt feelings I experienced, perhaps irrationally, whenever I saw Maiya.

The emotional consequences of mistakes are difficult enough to handle. But soon after I started practicing I realized I had to face another anxiety as well: it is not only in the emergency room, the operating room, the intensive care unit, or the delivery room that a doctor can blunder into tragedy. Errors are always possible, even in the midst of the humdrum routine of daily care. Was that baby with diarrhea more dehydrated than he looked, and should I have hospitalized him? Will that nine-year-old with stomach cramps whose mother I just lectured about psychosomatic illness end up in the operating room tomorrow with a ruptured appendix? Did that Vietnamese refugee have a problem I didn't understand because of the language barrier? A doctor has to confront the possibility of a mistake with every patient visit.

My initial response to the mistakes I did make was to question my competence. Perhaps I just didn't have the necessary intelligence, judgment, and discipline to be a physician. But was I really incompetent? My University of Minnesota Medical School class had voted me one of the two most promising clinicians. My diploma from the National Board of Medical Examiners showed scores well above average. I knew that the townspeople considered me a good physician; I knew that my partners, with whom I worked daily, and the consultants to whom I referred patients considered me a good physician, too. When I looked at it objectively, my competence was not the issue. I would have to learn to live with my mistakes.

A physician is even less prepared to deal with his mistakes than is the average person. Nothing in our training prepares us to respond appropriately. As a student, I was simply not aware that the sort of mistakes I would eventually make in practice actually happened to competent physicians. As far as I can remember from my student experience on the hospital wards, the only doctors who ever made mistakes were the much maligned "LMDs"—local medical doctors. They would transfer their patients who weren't doing well to the University Hospital. At the "U," teams of specialist physicians with their residents, interns, and students would take their turns examining the patient thoroughly, each one delighted to discover (in retrospect, of course) an "obvious" error made by the referring LMD. As students we had the entire day to evaluate and care for our five to ten patients. After we examined them and wrote orders for their care, first the interns and then the residents would also examine them and correct our orders. Finally, the supervising physician would review everything. It was pretty unlikely that a major error would slip by; and if it did, it could always be blamed on someone else on the team. We had very little feeling for what it was like to be the LMD, working alone with perhaps the same number of hospital patients plus an office full of other patients; but we were quite sure we would not be guilty of such grievous errors as we saw coming into the U.

An atmosphere of precision pervaded the teaching hospital. The uncertainty that came to seem inescapable to me in northern Minnesota would shrivel away at the U as teams of specialists pronounced authoritatively upon any subject. And when a hospital physician did make a significant mistake, it was first whispered about the halls as if it were a sin. Much later a conference would be called in which experts who had had weeks to think about the case would discuss the way it should have been handled. The embarrassing mistake was frequently not even mentioned; it had evaporated. One could almost believe that the patient had been treated perfectly. More important, only the technical aspects of the case were considered relevant for discussion. It all seemed so simple, so clear. How could anyone do anything else? There was no mention of the mistake, or of the feelings of the patient or the doctor. It was hardly the sort of environment in which a doctor might feel free to talk about his mistakes or about his emotional responses to them.

Medical school was also a very competitive place, discouraging any sharing of feelings. The favorite pastime, even between classes or at a party, seemed to be sharing with the other medical students the story of the patient who had been presented to one's team, and then describing in detail how the diagnosis had been reached, how the disease worked, and what the treatment was. The storyteller, having spent the day researching every detail of the patient's disease, could, of course, dazzle everyone with the breadth and depth of his knowledge. Even though I knew what was going on, the game still left me feeling incompetent, as it must have many of my colleagues. I never knew for sure, though, since no one had the nerve to say so. It almost seemed that one's peers were the worst possible persons with whom to share those feelings.

Physicians in private practice are no more likely to find errors openly acknowledged or discussed, even though they occur regularly. My own mistakes represent only some of those of which I am aware. I know of one physician who administered a potent drug in a dose ten times that recommended; his patient almost died. Another doctor examined a child in an emergency room late one night and told the parents the problem was only a mild viral infection. Only because the parents did not believe the doctor, only because they consulted another doctor the following morning, did the child survive a life-threatening infection. Still another physician killed a patient while administering a routine test: a needle slipped and lacerated a vital artery. Whether the physician is a rural general practitioner with years of experience but only basic training or a recently graduated, highly trained neurosurgeon working in a sophisticated technological environment, the basic problem is the same.

Because doctors do not discuss their mistakes, I do not know how other physicians come to terms with theirs. But I suspect that many cannot bear to face their mistakes directly. We either

deny the misfortune altogether or blame the patient, the nurse, the laboratory, other physicians, the system, fate—anything to avoid our own guilt.

The medical profession seems to have no place for its mistakes. Indeed, one would almost think that mistakes were sins. And if the medical profession has no room for doctors' mistakes, neither does society. The number of malpractice suits filed each year is symptomatic of this. In what other profession are practitioners regularly sued for hundreds of thousands of dollars because of misjudgments? I am sure the Dailys could have successfully sued me for a large amount of money had they chosen to do so.

The drastic consequences of our mistakes, the repeated opportunities to make them, the uncertainty about our culpability, and the professional denial that mistakes happen all work together to create an intolerable dilemma for the physician. We see the horror of our mistakes, yet we cannot deal with their enormous emotional impact. Perhaps the only way to face our guilt is through confession, restitution, and absolution. Yet within the structure of modern medicine there is no place for such spiritual healing. Although the emotionally mature physician may be able to give the patient or family a full description of what happened, the technical details are often so difficult for the layperson to understand that the nature of the mistake is hidden. If an error is clearly described, it is frequently presented as "natural," "understandable," or "unavoidable" (which, indeed, it often is). But there is seldom a real confession: "This is the mistake I made; I'm sorry." How can one say that to a grieving parent? to a woman who has lost her mother?

If confession is difficult, what are we to say about restitution? The very nature of a physician's work means that there are things that cannot be restored in any meaningful way. What could I do to make good the Dailys' loss?

I have not been successful in dealing with a paradox: I am a healer, yet I sometimes do more harm than good. Obviously, we physicians must do everything we can to keep mistakes to a minimum. But if we are unable to deal openly with those that do occur, we will find neurotic ways to protect ourselves from the pain we feel. Little wonder that physicians are accused of playing God. Little wonder that we are defensive about our judgments, that we blame the patient or the previous physician when things go wrong, that we yell at nurses for their mistakes, that we have such high rates of alcoholism, drug addiction, and suicide.

At some point we must all bring medical mistakes out of the closet. This will be difficult as

long as both the profession and society continue to project their desires for perfection onto the doctor. Physicians need permission to admit errors. They need permission to share them with their patients. The practice of medicine is difficult enough without having to bear the yoke of perfection.