Blood. What image does that word bring to mind? The trauma of an auto accident? The hustle of a Red Cross blood drive? The routine of a daily finger-stick to manage diabetes? An old Hebrew saying sums it up best for me: “The life of a creature is in the blood.”

In the Spring 2002 issue of Dartmouth Medicine, I wrote about my experiences battling lymphoma during my first and second years of medical school. At that time, chemotherapy, radiation, and heavy doses of prayer by friends and family had purchased a season of restraint—but the warfare was not over yet.

During the winter of my second year at DMS, the battle was rejoined and an all-out assault was waged on the disease that was attempting to take my life. Again.

For several months starting in January 2002, I was a “frequent flyer” at Mary Hitchcock Memorial Hospital. I was admitted countless times for five-day courses of chemo or for treatment of infections with antibiotics—my immune system being not much to speak of. Yet these were mere skirmishes. This battle would ultimately require a secret weapon being held in reserve: a bone marrow transplant. Plans called for one month in the hospital, with day after day of strategic high-dose chemotherapy. It would ravage my body and hopefully the cancerous cells of the enemy. These poisons destroyed the lining of my gut, produced painful mouth sores, sapped my strength, and took the hair that had only recently regrown. By design, the treatment was lethal. But there was the rejuvenating blood.

Point of no return: The blood I would receive was in fact my own. Only days prior to my admission for the transplant, I had reclined in the bowels of DHMC, donating the very stem cells that would later be reinfused. Daily injections had produced a surge in my marrow’s stem-cell production, exceeding expectations; enough blood was harvested for four transplants—a record! Weeks of physical, mental, emotional, and spiritual preparation would now be put to the test. There was no turning back.

Room 116 was my home that month, my nurses like family, an IV pole my constant companion. Seven days of chemo wrought their effects, an eighth day brought rest, and then the day for which we had waited and planned arrived. In the end, it was remarkably unglamorous. Without ceremony, a squeaky metal cart was wheeled into my room, carrying an automated blood warmer, numerous supplies, and an inconspicuous cooler containing the blood—seven little packets, upon which everything depended. My life in a bag. One by one, each bag was thawed and its contents were infused through a catheter in my chest. Payload delivered; time to wait.

This blood we carry is miraculous! Produced in the first few weeks of gestation, it nourishes every cell in our body, fights infection, and carries away waste. Each stem cell self-replicates, giving rise to an entire lineage of other cells. And by design, these precursors home in on their place of residence: the marrow.

Each morning a nurse scribed my blood counts on the marker board at the front of the room: the reappearance of specific white cells in normal blood would signify that the transplant had taken hold.

Six days of zeros and then . . . 14. Life! The cells were reproducing, slowly at first and then with a vengeance. Seven days later I walked out of Mary Hitchcock Memorial Hospital. Weak, tired, bald, alive. While another course of radiation still remained, the tide had turned. The day had been won.

Chemo and rotations: God’s grace alone has enabled me to fight this battle—twice. I continued in my coursework, studying while I was in the hospital and taking exams between rounds of chemo. I passed the national boards and began my third year rotations—all on time. Fight hard when it’s hard to fight.

These experiences have afforded me a unique perspective. Four of the seven days I spent in the ICU are missing from my memory. I know what it is like to have a machine breathe for me, to be examined by seemingly every resident and attending at DHMC. People I have never met know my entire medical history.

Very soon I will be a doctor. Years of hard work and perseverance have come to fruition. But my clinical education began before I hit the wards; it started the day I became a patient. My instructors were my doctors, my nurses, the woman who cleaned my room, the man who brought my meals. The classmates who cheered me on, the church family that prayed day and night. You may very well be one of those people. You saw me at my worst. You stayed all night. You came to visit on your day off. You carried burdens that were not yours but mine, sometimes with tears. And now we work side by side. What a privilege to do this thing we call medicine.

Live this life: My hair and weight have since returned—you might not even recognize me now. I am stronger than ever before, in more ways than I can count. My transplant marked, almost literally, a rebirth. I will have turned “two years old” on March 28, 2004. I’ll graduate from medical school at the age of three, in 2005. I am taking an extra year of medical school, now that I’m healthy, to slow down, travel overseas, take some extra electives, and spend time with those I love. To live this life that I owe to “the blood.”

Of life and blood
By E. Paul DeKoning, M.S.

“Student Notebook” shares word of the activities or opinions of students and trainees at DMS and DHMC. Paul DeKoning, who is currently a fourth-year M.D. student at Dartmouth Medical School, earned his bachelor’s degree in physiology as well as a master’s degree in epidemiology from Michigan State University.