



The Institute for Patient Blood Management & Bloodless Medicine and Surgery





Sarah, Karen, and Matthew Freeman

Englewood Hospital Is Our Hospital

A decade ago, Karen and Matthew Freeman attended a bloodless medicine seminar hosted by The Institute for Patient Blood Management and Bloodless Medicine and Surgery at Englewood Hospital and Medical Center. It marked the beginning of a relationship the couple didn't expect—one that, years later, changed Karen's life.

That seminar was eye-opening for the Freemans, who traveled 90 minutes from their home in Shohola, Pennsylvania, to attend. Bloodless medicine was already important to them for religious reasons, but the physicians who presented that day offered them a different, complementary perspective.

"The physicians talked about the merits of bloodless medicine from a medical perspective," Matthew says. "What they said made a lot of sense to me. To them, bloodless medicine was just a normal part of their job."

From then on, the Freemans, despite living within 30 minutes of four other hospitals, traveled to Englewood Hospital for all of their major medical needs, including a colonoscopy date night—they had the colorectal cancer screening simultaneously—and appointments with cardiologists and other specialists. Last year, their youngest daughter, Sarah, a college student, had an appendectomy at the hospital. It was a weight off of her shoulders, and her parents', knowing there was no question the surgery would be bloodless.

"The surgeon The Bloodless Institute recommended was great," Karen says. "His calm demeanor really put Sarah at ease. She was stressed because it was her first serious illness and surgery."



Jill Morrison, MD

If anyone could understand Sarah's feelings, it was Karen. A year earlier, in 2015, she, too, had received frightening medical news—and comfort from a steady, skilled clinician.

First, a 'Freak-out'...

In the fall of 2014, during a routine checkup, Karen's primary care physician noticed her thyroid was enlarged and recommended she see an endocrinologist. The following February, within a week of seeing an endocrinologist at Englewood Hospital,

ultrasound and biopsy results showed Karen had leukemia, a type of blood cancer.

"When I got the news, I freaked out," she says. Knowing leukemia was a blood cancer, there was no place Karen wanted to go other than Englewood Hospital. "I called The Bloodless Institute, hysterical, and asked for a recommendation for a good oncologist."

Karen was placed in the care of Jill Morrison, MD, a hematologist and oncologist at Englewood Hospital. Right away, Dr. Morrison was reassuring—"You're not going anywhere," she told Karen—but recognized that the cancer was behaving aggressively. A combination of leukemia and lymphoma but classified as leukemia, the cancer had spread to the thyroid and lymph nodes in Karen's chest, causing sweating, fatigue, weight loss, and fever. That form of leukemia can grow slowly, and in some cases, may only require monitoring. Karen's symptoms, however, meant she needed treatment.

...Then, a Way Forward

In the spring of 2015, Karen began receiving intravenous chemotherapy at Englewood Hospital. She had three treatments over the course of the spring and summer.

"Karen's treatment regimen consisted of an antibody drug and a chemotherapy drug," Dr. Morrison says. "When it ended, her disease had shrunk, but it hadn't disappeared, as we would expect with that particular regimen. We decided to change her treatment with the hope that a different drug would work better."

That is exactly what happened. Karen has been taking three capsules, once a day, of the oral immunotherapy drug ibrutinib since July 2015. The drug causes fatigue and other side effects, but she's learned to manage, and the trade-off is worth it.

"I'm in remission," Karen says. "My treatment, and the care I've received at Englewood Hospital, have given me a new lease on life."

Dr. Morrison will continue to monitor Karen closely for signs of the cancer's return. Karen has computed tomography scans twice yearly and travels to Englewood Hospital to see Dr. Morrison every six weeks. Karen and Matthew try to make the most of each trip by scheduling multiple medical appointments on the same day. They don't mind the drive.

"We choose to go to Englewood Hospital because this is the kind of care we want," Karen says. "We like the quality, the professionalism, the compassion, and the fact that everyone takes our wishes into account. We're happy."

Want to learn how The Bloodless Institute can be your partner in health? Visit www.bloodlessmed.org.

BRINGING EXPERIENCE TO BEAR FOR BLOOD CANCER PATIENTS

During nearly three decades of treating patients for whom blood is not an option, the members of Hematology Oncology Physicians of Englewood (HOPE) have refined techniques to keep individuals with leukemia and other blood cancers safe.

"Leukemia has a big impact on the bone marrow, which is the factory of blood cells," says Jill Morrison, MD, a HOPE hematologist and oncologist at Englewood Hospital and Medical Center. "Many leukemia patients come to us with anemia due to low blood counts, and we know their treatments will cause those levels to drop even more. Over the course of decades working with Englewood Hospital's Bloodless Program, we've come to understand what the body can tolerate in terms of lower red blood cell counts. Now, we can take measures to better support patients."

Those measures include growth factor stimulators to promote blood cell production and, as in the case of patient Karen Freeman, white blood cell stimulators to help prevent infections during treatment.

"The experience we have with bloodless patients allows us to take more risks," Dr. Morrison says. "We are comfortable using more aggressive treatments than most other centers because we have more practice doing it."



Sisters Sarah and Samantha Freeman

A Quest for Answers



Delina Hernandez and her husband, Ed

In early fall 2016, Delina Hernandez began experiencing concerning symptoms with no apparent cause. Four months, two emergency room (ER) visits, and many doctors' appointments later, she finally found answers and the help she needed at Englewood Hospital and Medical Center.



Jay Erlebacher, MD

Delina's journey began in September 2016 when the New Jersey resident started feeling nauseated and tired. She then started noticing sporadic sensations that she can only describe as feelings of blood rushing to her head.

"At first I thought they were seizures," Delina says. "The sensation was hard to explain, but it felt almost like there was a burst in my head that would last for a few seconds and go away."

Thinking her symptoms may stem from congestion and a sinus infection, Delina's doctor prescribed antibiotics and

a decongestant. Delina started to feel better, so the volunteer Bible teacher and full-time caregiver for her three brothers with disabilities put the episode behind her. However, her reprieve didn't last.

Dangerous Developments

On October 21, Delina's symptoms returned, and the sensations were more frequent than before. Delina knew something wasn't right, so she visited the ER at a hospital near her home the next day. The physician attributed her symptoms to menopause-related hormonal fluctuations and high blood pressure. Delina followed up with her gynecologist,

who recommended blood work. She also scheduled an appointment with the neurologist she sees to manage her dystonia—a movement disorder characterized by involuntary muscle contractions that result in repetitive or abnormal movements. At Delina's request, her neurologist scheduled an electroencephalogram (EEG)—a test to help physicians diagnose brain disorders, such as epilepsy or brain tumors. In the meantime, Delina stopped driving because she feared she was going to have an episode behind the wheel.

Delina still had few answers when she woke feeling ill on the morning of December 2. That day, while making breakfast for her brothers, she fainted in her kitchen. Delina consulted a cardiologist who had cared for her previously, and she began taking blood pressure medication at his recommendation. She also saw her neurologist again, who ordered a variety of additional tests.

After nearly another month of phone calls, medical appointments, and tests, Delina experienced another fainting episode while at home with her husband. She remembers walking into the dining room and waking up in her husband's arms.

"He was teary-eyed, and I said, 'I fell, right?" Delina remembers. "He nodded and said I hit my head on the door jam and landed hard on my neck and back. That explained why I was in such excruciating pain."

Delina's husband, Ed, called an ambulance to transport her to the hospital. After confirming there was no bleeding in Delina's



FAINTING IS A
SERIOUS SYMPTOM.
IF YOU FAINT OR PASS
OUT, YOU NEED TO
FIND OUT WHAT'S
WRONG, WHICH
IS EXACTLY WHAT
DELINA DID.

—Jay Erlebacher, MD, FACC, cardiologist at Englewood Hospital and Medical Center and Englewood Cardiology Consultants

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brain from the fall, physicians sent her home. Over the course of the following weeks, her symptoms worsened, so she continued to listen to her body and advocate for her needs. From her own medical research, Delina suspected her symptoms might stem from a heart problem, so she asked her local cardiologist for a Holter monitor, a device people wear for 24 to 48 hours that records their hearts' electrical activity. Delina finally received the monitor on January 31. By this point, she was not only experiencing frequent, intense sensations in her head, but also heart palpitations, fatigue, and heaviness in her legs.

Several hours after she received the monitor, Delina's cardiologist called and told her she needed to go to the ER right away. Delina wanted answers she could trust and to feel confident that her care aligned with her wishes if she needed surgery, so she decided instead to make the hour-long trek to Englewood Hospital. Jay Erlebacher, MD, FACC, was the cardiologist on call when Delina arrived.

"Dr. Erlebacher was so nice from the moment I met him," Delina says. "He listened as I told him about my symptoms and took time to explain everything that he was seeing on the monitor."

After months of waiting, Delina finally had a diagnosis: heart block. This condition affects the heart's electrical system. Delina had third-degree heart block, the most severe type. In cases of third-degree heart

block, the heart beats between 30 and 50 beats per minute instead of the normal 60 to 100 beats per minute. The abnormally slow heart rate causes symptoms like fatigue, weakness, and fainting.

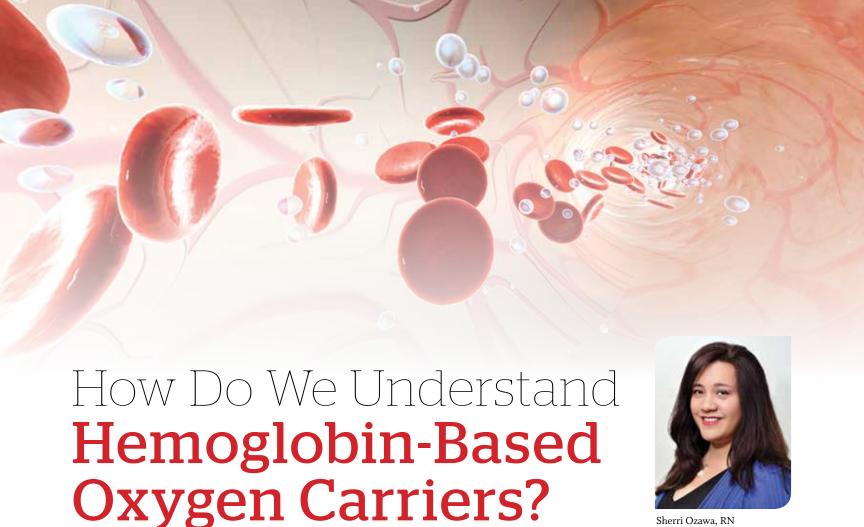
To treat Delina's heart block, Dr. Erlebacher recommended a pacemaker. This device sits under the skin of the shoulder and connects to leads that are threaded through the veins to the upper and lower chambers of the heart. It helps regulate abnormal heart rhythms.

"Pacemakers have dramatically changed the way we manage heart block," Dr. Erlebacher says. "It's truly a miracle how pacemakers can transform people who have a horrible quality of life into people who feel completely normal. Most of my patients tell me they forget the device is there. That's how I know it's working."

Dr. Erlebacher placed Delina's pacemaker on February 1. The next day, she returned home with no restrictions. She feels better and hasn't had any symptoms since her surgery.

"I'm truly grateful," Delina says. "I'm back to the ministry, working in my garden, caring for my brothers, and spending quality time with my husband. I wish I could let each member of the Englewood Hospital team know how much it means to me that they listened to me and did what was necessary to help me get my life back."

To find a physician who specializes in bloodless medicine, call 1-888-766-2566.



Sherri Ozawa, RN

By Sherri Ozawa, RN, Clinical Director of The Bloodless Institute and Senior Director of Patient and Family Engagement at Englewood Hospital and Medical Center

Think back to your days of high school or college science. You may remember learning about the hemoglobin molecule—an incredible creation that is a perfect combination of iron and proteins that "picks up" and carries oxygen molecules in the air we breathe to all parts of our body.

That amazing molecule, however, doesn't just float around in our bloodstream—it is contained inside our erythrocytes (erythro—Greek for red, cytes—Greek for cells), our red blood cells. In fact, it is the hemoglobin molecule that makes our blood appear red.

If we don't have enough red blood cells—because we are losing them through bleeding, not making enough, or our body is somehow destroying them—we can become dangerously ill.

Traditionally, doctors would prescribe blood transfusions to deal with this type of situation, but much has been learned about safely treating patients with fewer or no blood transfusions using a wide variety of techniques and medications. However, there are times that even with all these efforts, the body cannot cope with the lack of red cells and inside them—the hemoglobin molecule. Without enough, tissues and organs eventually fail.

Patients for whom transfusion is not an option are a special challenge in this scenario.

Over the past few decades, numerous scientists have tried to "deconstruct" the red blood cell and extract only the hemoglobin molecule, hoping that what resulted could be used as a way to allow

oxygen to be transported in the body even if the patient did not have sufficient red cells to do the job. These efforts have resulted in a number of products that are collectively referred to as hemoglobin-based oxygen carriers or HBOCs.

Most use red cells from animal blood—processed to remove only the hemoglobin molecule—which in turn is treated and coated so it is chemically stable and free from infection. What results is a product that visually looks red, much like blood, but is not the same as a transfusion. It can be used to "bridge" a patient from a point of critical anemia to a later point when the patient has had time to make enough of his or her own cells.

None of these products are currently on the market, but at times, the manufacturers make some of the HBOC available for "compassionate" use" or as part of a scientific study. So it is possible that you may be asked about use of these products for yourself or a loved one during a medical crisis by physicians who are doing all they can to both respect your wishes regarding transfusion but also give you the best available choices and care.

How should you decide about whether or not to agree to the use of these products? The decision, like many others, is a personal one and must be based on careful consideration and possibly with the help of trusted advisors. One should not blindly decline or accept any therapy without solid thought and understanding and the same is true for these newly developed therapies.



Legends of The Bloodless Institute:

Dr. Francis A. Forte

For Francis A. Forte, MD, hematologist and oncologist at The Institute for Patient Blood Management and Bloodless Medicine and Surgery at Englewood Hospital and Medical Center, bloodless medicine presented an interesting opportunity to challenge medicine's legacy of "do what I say, and don't question it."

A Brooklyn native and 1964 graduate of Albert Einstein College of Medicine, Dr. Forte joined the Air Force under the Berry Plan, which deferred drafting of young physicians until they finished residency. Upon completion of his residency, Dr. Forte deployed to Fairborne, Ohio, where he got his first taste of team-based patient care. He would carry that philosophy of collaboration into the rest of his career, including at Englewood Hospital.

"I've always been interested in how everything affects the whole person," says Dr. Forte, who serves as Senior Medical Director at The Bloodless Institute. "The blood is very important, because it goes to every organ."

Jehovah's Witnesses and other patients who require bloodless care, then, presented a unique challenge for Dr. Forte.

Changing the Standard of Care

"They want the best care they can get, they want to follow instructions, they want to be healthybut they don't take blood," Dr. Forte says of patients for whom blood transfusions are not an option. "That is a big detriment to their care elsewhere."

Historically, many doctors would not treat or claimed they could not perform surgery on patients who required bloodless medicine. Alongside other pioneers of The Bloodless Institute, Dr. Forte set out to ensure that wasn't the case at Englewood Hospital.

Thanks to the efforts of Dr. Forte and his colleagues, The Bloodless Institute has successfully treated the following patients, and many others, who may have been unable to receive the care they needed elsewhere:

- · repleting volume of a man who was shot and rapidly losing blood
- treating a man with a hemoglobin level of 1.4, one-tenth of the ideal level
- · halting blood loss in a young woman with uterine bleeding from a gynecologic disorder "I think we created a culture of welcome

here, instead of criticism," Dr. Forte says. "We help people who previously were medically mistreated, and who should not have been."

To learn more about The Bloodless Institute, visit www.bloodlessmed.org. For a referral to a blood management physician, call 1-888-766-2566.

NOT JUST A DISEASE. **BUT A PERSON**

A key aspect of patient care for Francis A. Forte, MD, hematologist and oncologist at The Institute for Patient Blood Management and Bloodless Medicine and Surgery at Englewood Hospital and Medical Center, is to treat not merely the condition affecting his patient, but the whole person. It's an approach at which he feels The Bloodless Institute particularly excels, as the physicians work collaboratively.

"This place is amazingespecially the wealth of doctors who are here and are concerned for the patient," Dr. Forte says. "Taking care of someone is a gift and a responsibility."



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Risky Alternatives

Recent research suggests that delaying traditional cancer treatments for alternative remedies is dangerous—perhaps, even deadly.

Following a cancer diagnosis, some people take herbal supplements or probiotics, adopt special diets, or try deep breathing, homeopathy, and other nontraditional remedies. When these remedies are used instead of traditional treatments, they're termed "alternative," according to the National Center for Complementary and Integrative Health.

Despite growing interest in alternative medicine, not much is known about its effectiveness. The danger exists that a patient could go on a special diet or use certain supplements that claim to cure cancer instead of taking known effective, evidence-based therapies that their oncologist might prescribe to them.

This is something a team of Yale School of Medicine and Yale Cancer Center researchers hoped to study through a research project published in the *Journal of the National Cancer Institute*.

These investigators examined National Cancer Database data from 840 cancer patients with breast, prostate, lung, and colorectal cancers. Roughly 33 percent of these patients used alternative remedies. The remaining 560 received conventional chemotherapy, radiation therapy, or surgery. On average, results revealed that adults who used alternative therapies were more than twice as likely to die from their cancers than those who received traditional treatments.

The Right Treatment at the Right Time

Cancer is a cruel disease, and for some, it progresses extremely fast. When patients choose to explore nontraditional, alternative treatments rather than undergoing the chemotherapy, radiation, or surgery recommended by oncologists, it's possible that the cancer can progress and the patient can miss his or her window for traditional treatment. As a result, patients who delay medical treatment to pursue alternative therapies could find they're out of options if and when nontraditional cancer therapies fail.

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Traditional cancer treatment is often rough on patients and may have severe side effects. However, it's the best option currently available to effectively treat cancer. Rather than relying on alternative medicine, cancer patients should consider using complementary medicine such as massage therapy, acupuncture, and nutritional counseling that can help relieve the side effects of traditional medical therapy. Of course, as with any medical treatment, this is an area of personal choice. However, patients should make sure that any suggested treatment has the evidence to back it up.

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