



Institute for Patient
Blood Management and Bloodless
Medicine and Surgery





For months, hospitals and health systems around the world prepared for when, not if, COVID-19 would reach their doors. Additional personal protective equipment (PPE) was ordered for staff; new policies were put into place to protect patients, employees, and our families; and hospital facilities were readied—all in preparation for the medical crisis that was on its way.

For Englewood Health, that day came on March 4 when we admitted our first patient with a confirmed case of the infectious disease.

For the past few months, Englewood Hospital has been filled with COVID-19 patients, and we're still treating COVID-19 patients—even though the number of infections finally seems to be stabilizing. A multidisciplinary team of physicians, which includes specialists in infectious disease, critical care, hospital medicine, pulmonology, and numerous others, are overseeing the care of these patients, aided by a tremendous team effort from other medical specialists and our amazing nurses, technologists, respiratory therapists, and other staff members. Everyone is surpassing expectations as they ensure that our patients receive the best and safest care possible. On April 17, we celebrated together as our 500th COVID-19 survivor was released from the hospital, and we continue to celebrate successes every day.

Throughout this time, the community we serve—both in Englewood and throughout the world—has been amazing. When we need you most, you show your support for our staff and patients. You've donated lunches and handmade supplies to our staff, thanked us with a parade through our campus, and donated to our Power to Prepare Fund. We can't thank you enough for all you've done and continue to do.

This special issue of *Choices* tells the story of how Englewood Health and the Institute for Patient Blood Management and Bloodless Medicine and Surgery is responding to the COVID-19 crisis. We're pleased to highlight the experiences of our patients and providers and share information we're learning as we treat these courageous patients and start to describe the developing science about the impact COVID-19 has on our blood.

### Committed to

## Transfusion-Free Care for COVID-19



Margit Kaufman, MD

Decades of practicing bloodless medicine prepared the Institute for Patient Blood Management and Bloodless Medicine and Surgery at Englewood Health to treat patients for the COVID-19 virus without blood transfusions, which may pose additional risks for these individuals.

COVID-19 appears unlikely to be transmissible via blood transfusions, but questions remain about blood's safety, according to the Society for the Advancement of Blood Management (SABM). SABM asserts that managing and preserving patients' own blood for use during medical treatment plays a crucial role in managing COVID-19.

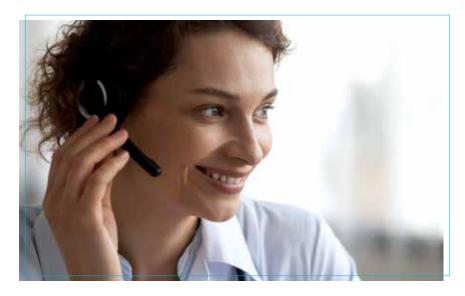
Although researchers are investigating the use of convalescent plasma to determine whether antibodies from COVID-19 survivors could be used to treat patients with the virus, the safety and efficacy of this approach are as yet unproven.

"If convalescent plasma were to become a treatment option, there might be other ways to provide antibodies instead of a blood transfusion," says Margit Kaufman, MD, Medical Director of The Bloodless Institute. "At Englewood Health, we're acutely aware of the risks associated with blood transfusion. Many of these risks affect parts of the body that are already harmed by a severe COVID-19 infection, including the lungs, kidneys, and immune system."

The Bloodless Institute continues to use evidence-based, well-honed patient blood management techniques to treat patients with COVID-19 who are at risk for bleeding, blood clots, and anemia, according to Dr. Kaufman.

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

## Advocating for Patients and Families



Traditionally, the Patient and Family Engagement team at Englewood Health visits with inpatients at Englewood Hospital, answering questions, making sure they are comfortable, and offering an additional human connection during their stay. While COVID-19 has changed the way the team interacts with inpatients—it's now done by daily phone calls to patient rooms—the team's purpose remains the same: to act as advocates for patients to reduce the stress and isolation that can interfere with recovery.

During the COVID-19 outbreak, the valuable work of the Patient and Family Engagement team was supplemented by many additional re-deployed hospital employees. This new team of patient advocates includes all of Englewood Hospital's social workers and six staff members from the Institute for Patient Blood Management and Bloodless Medicine and Surgery.

"COVID-19 has highlighted and reinforced the purpose of our team," says Lorraine Johnson, RN, BSN-BC, CPXP, Nurse Coordinator for Patient and Family Engagement at Englewood Health, "Patients are in isolation, and all the venues of communication and connection they have with caregivers inside the hospital and loved ones outside the hospital have changed. We have come together in extraordinary ways to make sure everyone's needs are being met."

Advocating for patients means that the Patient and Family Engagement team advocates for their family members, too. Because hospital visitors are prohibited, it's not uncommon for families to feel as though they are abandoning their loved ones when their support is most needed. Though in most cases they can communicate by phone, it's not the same as being able to be there in person and hear directly from caregivers at the bedside.

Members of the Patient and Family Engagement team are available 24 hours a day, seven days a week, to supplement the information provided by the Englewood Health physician-family liaisons during daily medical update calls. The team answers follow-up questions about medical care, checks with nursing staff about patient status, relays messages, arranges for FaceTime calls between patients and their loved ones, and speaks with family members about the general well-being of the patient.

It's a valuable service that provides extra reassurance to family members when they're afraid and under stress.

"We reach out to the family and let them know that we're here so they can check in with us at any time," Johnson says. "The lines of communication are open, and that continues throughout each patient's stay."

## Braving the Challenge

## Together

When the COVID-19 pandemic transformed American life, Englewood Health Foundation introduced new donor touch points to support the health system—and our community rose to the challenge.

As the numbers of severely ill patients grew, stressing medical resources and creating urgent needs for support, Englewood Health Foundation realized how much social distancing would restrict its tried and true efforts to raise funds and awareness. Rapidly retrenching, the Foundation created new conduits to allow a steady influx of meaningful aid.

"Our Power to Prepare Fund, established in response to COVID-19, helps obtain necessary supplies and equipment, deliver support for our indispensable caregivers, and ensure continuity of quality patient care," says Debra Albanese, Executive Vice President of Englewood Health Foundation. "The immediate, heartwarming community response meant success, which is great news for Englewood

Englewood Health Foundation partners with donors to shape meaningful philanthropic strategies and build enduring charitable legacies to benefit Englewood Health. Community generosity allows the Foundation to support the health system's capital, endowment, and annual operating needs.

"The pandemic both intensified the need for philanthropic support and drastically reduced the revenue of nonprofit organizations like ours," Albanese says. "By giving donors accessible ways to pledge support, the Power to Prepare Fund raised more than \$2.5 million during its first six weeks. That includes \$85,000 to support delivery of some 20,000 meals to frontline caregivers."

Learn more about how to give and how your gift will help by calling 201-894-3725 or visiting www.englewoodhealthfoundation.org/ power-to-prepare.

## A Symphony of Symptoms:

# Understanding COVID-19 as a Coagulation Issue

Because of the experience of its network of experts around the world, Englewood Health was early to obtain knowledge about COVID-19 and early to use patient blood management techniques to combat some of the disease's more unexpected symptoms—including coagulation issues.





Aryeh Shander, MD

In late 2019, when the world first learned of COVID-19 as it spread through China, health experts explained that the novel coronavirus primarily affected the respiratory system and could cause life-threatening breathing problems for the most severely affected. In the months since, however, doctors began seeing new symptoms and realized there is more to COVID-19 than they initially understood. Now, it's an ongoing race against time to recognize and treat the array of emerging symptoms that can affect almost the entire body—literally from head to toe.

While COVID-19's original symptoms were identified as a fever, cough, and shortness of breath or breathing difficulties, the Centers for Disease Control and Prevention (CDC) unveiled a new list of symptoms in late spring that includes body chills, muscle pain, headache, sore throat, and loss of smell or taste. Researchers also believe other signs may be associated, including skin issues, such as "COVID toes"—swelling, pain, and discoloration

of the toes—and unexplained rashes. The list of related complications grows as new patterns are discovered.

"Because the disease has spread so rapidly throughout the globe, there really hasn't been time yet to do studies and publish information," says Sherri Ozawa, RN, Clinical Director of the Institute for Patient Blood Management and Bloodless Medicine and Surgery and Senior Director of Patient and Family Engagement at Englewood Health. "We are getting some formal information, but we're also getting a lot of informal information that has been helpful."

The Bloodless Institute is known worldwide for its patient blood management protocols, so the experts in Englewood have access to colleagues in Asia and Europe who have a head start when it comes to treating COVID-19. Those physicians shared valuable information with Englewood Health clinicians—already experts in patient blood management—so they were better prepared.

"We knew we would be facing patients who came into

the hospital with severe respiratory illness, but our colleagues around the world alerted us early onbefore the virus was having a significant impact in the U.S.—about other issues their patients were experiencing," says Aryeh Shander, MD, Senior Consultant for The Bloodless Institute. "In Italy, one of the major concerns they saw was a cascade of devastating vascular events, including blood clots throughout the body."

#### **Understanding Coagulation**

Coagulation is the process of blood changing from a liquid into a thicker gel that allows it to clump together and make a clot. Clots aren't always dangerous; in fact, they're critical to the healing process when there is an injury such as a cut, because the blood clots at the site of the injury to prevent too much blood loss.

Coagulation can be dangerous, however, when blood clots form where they don't belong and don't dissolve as they should. It's suspected that the inflammation experienced as a result of COVID-19 can cause the blood to go into a state of excessive clotting known as hypercoagulation.

Numerous theories have been proposed in the attempt to explain why COVID-19 is so damaging to the vessels and how it affects the blood itself, Dr. Shander says.

These clots can form in the vessels that supply blood to the brain, heart, kidneys, limbs, and lungs, blocking the blood supply and causing potentially deadly complications such as heart attack, stroke, pulmonary embolism, and kidney failure. Unfortunately, some COVID-19 patients experienced one or more of those outcomes.

"Clotting in the lungs and other organs is not what you would typically see with a respiratory disease," Ozawa says, adding that Englewood Health's very competent intensivists and critical care physicians are well positioned to identify and respond to changing symptoms. "To address this problem, we began screening patients for clotting issues."

According to Dr. Shander, patients are screened for hypercoagulation with lab work and start using anticoagulation therapy (blood thinners) if they are found to be at increased risk.

"We know that some patients throughout the world have lost limbs or have experienced heart attacks or organ failure," Dr. Shander says. "By starting patients on anticoagulants, we're hoping to mitigate some of those risks."

Visit www.bloodlessmed.org to learn more about The Bloodless Institute. For a referral to a bloodless physician, call 888-766-2566.

"WHEN IT COMES TO PATIENT ADVOCACY, I THINK ENGLEWOOD HEALTH HAS DONE MORE THAN OTHER HOSPITALS BECAUSE WE'VE PRIORITIZED EXTENSIVE COMMUNICATION WITH PATIENTS AND THEIR FAMILIES. WE'VE USED THE BLOODLESS INSTITUTE'S MODEL FOR PATIENT ADVOCACY AROUND THE HOSPITAL, AND WE'VE BEEN ABLE TO HELP PATIENTS FEEL LESS ISOLATED WHILE CONTINUING TO MEET THEIR NEEDS."

— Sherri Ozawa, RN, Clinical Director of the Institute for Patient Blood Management and Bloodless Medicine and Surgery and Senior Director of Patient and Family Engagement at Englewood Health

### ROLE OF PATIENT BLOOD MANAGEMENT DURING A PANDEMIC

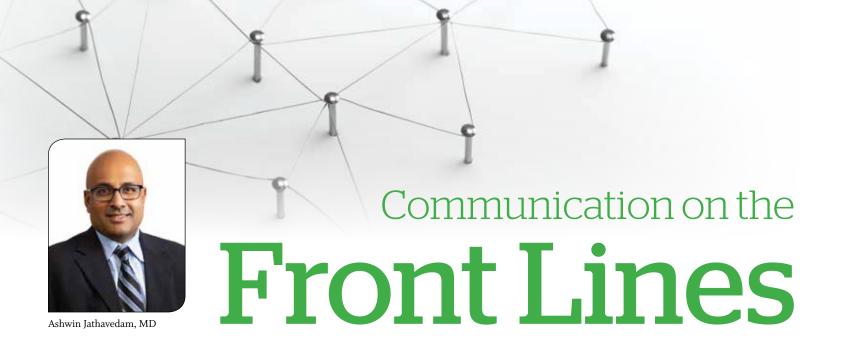
treating patients during a pandemic. Concern for the safety of the donors and As a result, patient blood management has taken on a new priority.

"We understand the call for donors, but the problem is that donated blood has a limited shelf life, and then it is discarded," says Aryeh Shander, MD, Senior Consultant for the Institute for Patient Blood Management and Bloodless Medicine and Surgery at Englewood Health. "A better approach would be to use patient blood management techniques for all conditions, especially during this time of crisis. This would result in an across-the-board preservation of the blood supply, especially when under stress."

Patient blood management strategies include:

- Identifying and addressing anemia
- Limiting blood tests

- Testing for coagulation issues



Englewood Health, along with the Institute for Patient Blood Management and Bloodless Medicine and Surgery, has streamlined communication between physicians and families of COVID-19 patients by creating a physician-family liaison team. The liaisons provide updated information about treatments and progress. A separate team, comprised of multidisciplinary clinicians from our hematology/oncology department, acts as liaisons for patients in the critical care unit.

"The program was implemented during mid-March as our COVID-19 numbers were rising," says Allison Barone, MD, the interventional radiologist who co-coordinates the team with radiologist Mindy Goldfischer, MD. "It was created to provide a link between the medical team caring for these COVID-19 patients and the families who felt isolated at home without being able to visit or get frequent updates from the physicians. We felt the communication needed improvement."

Dr. Barone's work pre-COVID-19 consisted of about 50 percent outpatient elective procedures. With elective procedures cancelled, Dr. Barone found herself with extra time on her hands, so she became one of the first to volunteer for the newly created position. Dr. Barone and Dr. Goldfischer coordinate the 75 physician volunteers who are participating.

With this plan in place, families are assured to get daily updates since visitors to hospitals are restricted at this time.

### **Making Time for Patient Care**

Ashwin Jathavedam, MD, Chief of Infectious Disease at Englewood Health, is currently treating COVID-19 patients at Englewood Hospital.

"The challenge has been that this disease has required a lot of communication among doctors, and that doesn't leave as much time as we would like to talk to the families," Dr. Jathavedam says, adding that the liaisons are important because family members and visitors aren't allowed in the hospital to have in-person conversations with doctors and hospital staff. "I can't imagine how hard it must be to have someone in the hospital and not be with them."

Dr. Jathavedam noted that he normally has a lot more time to speak with the patients and their families, but spending as much time as he would really like to is just not possible right now.

"I think it is a difficult time for everybody, but the hospital has responded very well," Dr. Jathavedam says. "I think we were ahead of the curve."

"We wanted to do this for the benefit of the family members," Dr. Barone says. "But it was also very fulfilling for the liaisons, the coordination teams, and everyone involved to be able to help our coworkers, in addition to supporting the families."



Allison Barone, MD

"HAVING THIS LIAISON PROGRAM ALLOWS US TO MAINTAIN A HIGH LEVEL OF COMMUNICATION WHILE ALLOWING FRONT-LINE PHYSICIANS TO FOCUS ON PATIENT CARE."

—Allison Barone, MD, interventional radiologist and co-coordinator of the physician-family liaison program

## **Critical Communication**

During the COVID-19 crisis, one team of doctors has the hard job of communicating with families of critically ill patients.



Steven Brower, MD

Over 1,000
patients have
been treated at
Englewood Health
and the Institute
for Patient Blood
Management
and Bloodless
Medicine and
Surgery for
COVID-19—
which means
over 1,000

families have not been able to be by the bedside of their loved ones. But with so many critically ill patients, overwhelmed intensive care unit physicians needed to find a way to coordinate communication, especially with so many families facing uncertain outcomes.

While the physician-family liaisons were

able to take on the task of communicating status messages and treatment updates from physicians to the patients in the rest of the hospital, a different level of communication was necessary for patients in the hospital's intensive care unit. Steven Brower, MD, the Chief of Surgical Oncology and Medical Director of the Lefcourt Family Cancer Treatment and Wellness Center at Englewood Health, and his team were there to provide guidance to families of our sickest patients—those needing critical care.

"Our oncology doctors and nurses have particular expertise in talking to families about pain and palliative care and end-of-life discussions," Dr. Brower says. "So it was natural that the ICU attendings and I would say, 'Hey, we've got a cadre of medical oncologists and surgical oncologists who are not doing what they're usually doing, so let us take up the communications."

Within a few days, the oncology team was able

to safely work from home, relaying prognoses and updates to family members across the community. Dr. Brower estimates this saved three to four hours daily for ICU physicians who would have otherwise had to make calls to up to 50 patient contacts per day.

The telephone calls also allowed families to know that their loved ones were receiving leadingedge bloodless medicine to treat COVID-19.

"Many of the COVID-19 patients have had clotting issues and anemia," Dr. Brower says. "We are certainly a national leader in addressing these comorbidities, and our COVID-19 patients are definitely benefiting from all of our patient blood management and anemia strategies."

Now that the numbers are ticking down, Dr. Brower says his team is excited to return to the hospital once again.

"We are just hoping that we're doing all that we can for the patients in our community," Dr. Brower says.

## Expressions of Thanks

Families reflect on their loved ones' COVID-19 care at Englewood Health.

"The hospital staff went out of their way to understand how scared I was not being able to be there for my husband. They made a real effort to be sure I got to talk to him. I hope they know how that little task was so special."

Since March, Englewood Health and the Institute for Patient Blood Management and Bloodless Medicine and Surgery have treated more than a thousand COVID-19 patients. The tragic cost of this baffling and brutal virus will not be fully known for months, but our team has been providing individualized care for every patient—and every patient's family, even those who haven't been able to enter the building.

"I am doing much better, and I see signs of improvement every day. I am being totally honest when I tell you that I could not have done this without the amazing nurses, physicians, and care workers at Englewood Hospital. From the minute we arrived in the ER, we were met by their kind and professional team. They rose far above the challenges they faced with kindness and professionalism. We really felt the love."

"I have never met more compassionate caregivers than when I arrived at the Emergency Room at Englewood Hospital. They knew how scared we were yet somehow kept us calm."



Institute for Patient **Blood Management & Bloodless** Medicine and Surgery

350 Engle Street Englewood, NJ 07631

Englewood Health complies with applicable federal civil rights laws and does not discriminate on the basis of race, color, national origin, age, disability, or sex. Englewood Health does not exclude people or treat them differently because of race, color, national origin, age,

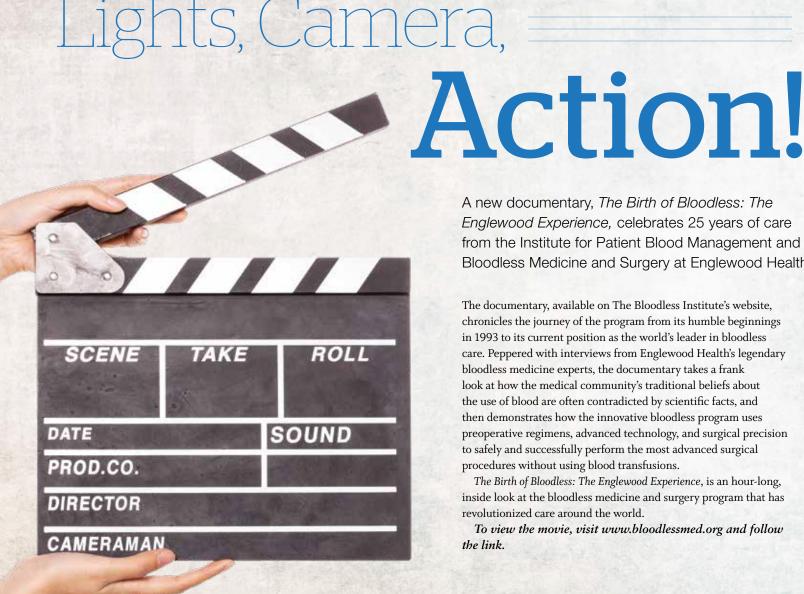
ES Para asistencia lingüística gratuita, llamar al 201-894-3368. KO 무료 통역 서비스를 원하시면 201-894-3368로 문의바랍니다. ZH 如需免费语言协助服务,请敦电 201-894-3368 HI 귀ଡ़ुल्क आपा सहायता मेवाओं रू लिए 201-894-3368 पर कॉल करें। HT Pou sèvis asistans ak lang gratis, rele 201-894-3368.

HT Pou sèvis asistans ak lang gratis, rele 201-894-3368.

FR Pour bénéficier d'un service d'aide linguistique gratuit, appelez le 201-894-3368. GU મક્ત ભાષા સહાયતા સેવાઓ માટે 201-894-3368 પર કૉલ કરો GU મુક્ત ભાષા સહાયતા સવાઆ માટે 201-894-3368 પર કોલ કરો. IT Per avere servizi gratult di assistenza linguistica, chiamare il numero 201-894-3368. PL Uslugi bezplatnej pomocy językowej zadzwoń 201-894-3368. PT Para serviços de assistência de idioma grátis, chame 201-894-3368. RU Для получения бесплатных языковых услуг обращайтесь по телефону 201-894-3368 TL Para sa mga libreng serbisyo ng tulong sa wika, tumawag sa 201-894-3368.



This publication in no way seeks to serve as a substitute for professional medical care. Consult your physician before undertaking any form of medical treatment or adopting any exercise program or dietary guidelines.



A new documentary, The Birth of Bloodless: The Englewood Experience, celebrates 25 years of care from the Institute for Patient Blood Management and

Bloodless Medicine and Surgery at Englewood Health.

The documentary, available on The Bloodless Institute's website, chronicles the journey of the program from its humble beginnings in 1993 to its current position as the world's leader in bloodless care. Peppered with interviews from Englewood Health's legendary bloodless medicine experts, the documentary takes a frank look at how the medical community's traditional beliefs about the use of blood are often contradicted by scientific facts, and then demonstrates how the innovative bloodless program uses preoperative regimens, advanced technology, and surgical precision to safely and successfully perform the most advanced surgical procedures without using blood transfusions.

The Birth of Bloodless: The Englewood Experience, is an hour-long, inside look at the bloodless medicine and surgery program that has revolutionized care around the world.

To view the movie, visit www.bloodlessmed.org and follow the link.

