

Transfusion-Free Medicine & Surgery at Rhode Island Hospital

“Transfusion-free medicine has
many benefits for our patients.
We should strive to avoid
transfusion if at all possible.”

*William G. Cioffi, MD
Surgeon-in-Chief
Rhode Island Hospital and
The Miriam Hospital*



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Why “Transfusion-Free?”

Nationwide, more and more hospitals are implementing transfusion-free medicine and surgery because of the many advantages for patients.

Evidence has shown that this approach to medical care is associated with:

- Improved outcomes
- Less exposure to emerging viruses and infections
- Faster recovery time
- Reduced postoperative infections

Transfusion-Free Medicine & Surgery at Rhode Island Hospital is a comprehensive multi-disciplinary approach to patient care that involves strategies to stimulate blood cell production and techniques to minimize blood loss, with the goal of achieving optimal treatment without blood transfusion. Patients choose transfusion-free medicine and surgery for personal, ethical or religious reasons. This approach to medical care has many benefits.

Preoperative Planning

Upon choosing transfusion-free care, each patient is evaluated so we can form a comprehensive strategy for blood conservation, especially when surgery is being considered. You will be asked to provide your medical history and will have a general physical examination that includes a blood test. This test allows your medical team to identify underlying disorders such as clotting deficiencies or other abnormalities. Anemia is a major concern and tests can reveal your body’s ability to make blood; it may be necessary to reinforce the blood cell formation process. Certain medications can contribute to bleeding during surgery, so identifying these early on is extremely

important to minimize blood loss. As you can see, the evaluation process enables your medical team to be prepared.

For example, a blood test reveals your red blood count and oxygen carrying capacity. If it is found to be low, your doctor may recommend one or more of the following therapies:

- B12, folic acid or vitamin C
- Iron therapy
- Erythropoietin (a hormone that stimulates red blood cell production)

Surgery at Rhode Island Hospital

Rhode Island Hospital is a teaching hospital – all of the physicians and surgeons who participate in the transfusion-free medicine and surgery program are on the faculty of The Warren Alpert Medical School of Brown University and are experts in their fields.

Many of them have pioneered technologies that have led to ever less invasive procedures. For example, in orthopedics, arthroscopy is performed nearly twice as often as open surgery. Minimally invasive or “band-aid” surgeries requiring only brief hospitalization have replaced many more difficult procedures that required longer hospital stays.

Additionally, *non-operative* techniques for treating cardiac disease and cancer are innovative transfusion-free methods being pioneered at Rhode Island Hospital. Our image-guided tumor ablation program, for example, is unique in the nation. Coronary angioplasty using drug-eluting stents, and microwave ablation of liver tumors, are only two of the procedures first performed here as part of national clinical trials.

During Surgery

Depending on the nature of the procedure, your surgical team will assemble and prepare to use a variety of instruments and techniques designed to minimize your blood loss, maximize oxygen delivery and maintain your blood volume.

Some of these techniques may include:

- Hemodilution – the drawing off of a calculated amount of blood and the dilution of the blood remaining in the circulatory system with an IV solution. When needed or at the end of the procedure, the blood in the reservoir is redirected or returned.
- Intraoperative blood salvage (cell saver) – used during major procedures such as hip and knee replacements, prostate surgery, and vascular surgery. This process recovers blood lost from the surgical area and washes, filters, and returns it to your body.
- Oximetry – a special sensor that monitors the oxygen saturation in the blood.
- Hypotensive anesthesia – a technique of lowering the blood pressure during surgery.
- Harmonic scalpel – developed and pioneered here at Rhode Island Hospital – a surgical instrument for cutting and coagulation in laparoscopic and open surgical procedures.
- Argon beam coagulator – a device used to coagulate or clot bleeding tissue.
- Electrocautery – a procedure used to seal blood vessels to reduce or stop bleeding.

Postoperative Care

- Erythropoietin and iron therapy
- Minimal blood draws
- Vitamin and nutrition support

As in your preoperative care, you will be continuously monitored for any abnormalities.

The Rhode Island Hospital Team Leaders

Stephanie Lueckel, MD, Medical Director
Transfusion-Free Medicine & Surgery



Stephanie Lueckel, MD, is a trauma attending in the trauma and surgical critical care division of Rhode Island Hospital and assistant professor of surgery at The Warren Alpert School of Medicine at Brown University.

Previously she traveled to Malawi, Africa, during which time she trained young Malawian surgical residents in critical care at Kamuzu Central Hospital.

As medical director, Lueckel provides clinical care for patients under her supervision, directs the medical aspects of transfusion-free care, and advises other physicians and surgeons in blood conservation techniques.

Kevin Wright, Program Manager
Transfusion-Free Medicine & Surgery



Kevin Wright has been involved with transfusion-free medicine and surgery for some 20 years, lecturing both nationally and internationally on this topic.

He is a member of the Rhode Island Hospital Transfusion Committee and a member of the Society for the Advancement of Blood Management (SABM). Wright has written articles and also served as an associate editor for the SABM newsletter. He works closely with patients, coordinating their care and providing appropriate directives. He acts as liaison among patients, physicians and staff.

Rhode Island Hospital Services

Here are a few of the medical services and programs that work with **Transfusion-Free Medicine & Surgery** at Rhode Island Hospital:

- Cardiology
- Cardiothoracic surgery
- Colorectal surgery
- Gastroenterology
- Gastrointestinal endoscopy
- Nephrology
- Neurosurgery
- New England Gamma Knife Center
- Oncology (Comprehensive Cancer Center)
- Ophthalmology
- Orthopedics
- Otolaryngology (ear, nose and throat)
- Pediatrics
- Plastic surgery
- Trauma
- Urology
- Vascular surgery

Please inquire about the specialty that you need if it is not listed above.

It's Your Choice

All patients are given a directive to complete and sign that indicates their medical preferences. Some patients are unwilling to receive a blood transfusion under any circumstances; others wish to pursue alternative treatment possibilities while striving to avoid a transfusion if at all possible. Our physicians will discuss the options available to you and provide care that respects your wishes. In the care of children, there are limitations and each case is individualized. Since urgent situations arise unexpectedly, we need to know about your choice in this matter at the earliest possible point in your care.

Please be assured that Rhode Island Hospital upholds your right to considerate care that safeguards personal dignity and privacy and respects individual differences and values.

Patient Education

The transfusion-free medicine and surgery team at Rhode Island Hospital conducts patient education seminars because we realize that you want to be a part of the decision-making process in your medical care. These informative sessions help patients and their families decide whether transfusion-free medicine or surgery is the right choice for their circumstances. A variety of speakers and topics will enable you to be informed and to have a better understanding of available treatment options.

For more information about transfusion-free medicine and surgery at Rhode Island Hospital, please call (401) 444-4550.