

Impulse Monitoring Autotransfusion: The Blood-safe Solution

For much of the 20th century, surgeons and patients relied almost exclusively on donated blood through a process known as “allogeneic” transfusion and still do so today. Though millions of lives are saved because of volunteer donors, there are potential complications with these transfusions that include:

- Infectious diseases
- Bacterial infection and Sepsis
- Risk of allergic reactions and incompatibility, such as Anaphylaxis and TA-GvHD.
- Shortages, particularly with rare blood types or antibody types
- Religious beliefs that can prohibit patients from receiving donor blood

Autotransfusion: The Blood-safe Alternative

Autologous transfusion — or autotransfusion (AT) uses only the patient’s own blood. It removes the risk of infectious disease and



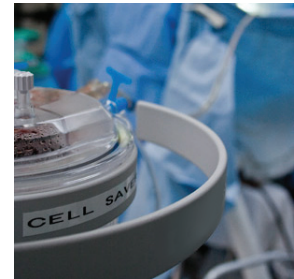
ensures that the blood type is a perfect match, so drastically reducing risk of allergic reactions. Moreover, every pint of blood that’s not used for the patient can be used to save the lives of three other people.

AT Techniques from Impulse Monitoring

Impulse’s clinical staff provides auto-transfusion services during and after surgical procedures. Using trusted equipment, such as

Cell Saver and OrthoPAT, the blood lost during and after surgery is collected, cleaned and recycled back into the patient’s body, as needed. Our AT techniques include:

- *Intraoperative Cell Salvage* — can be used in most surgeries, recovers blood lost in a surgery and prepares it to be returned to the patient. This process is performed with a “cell saver” machine that collects the blood the patient loses and spins it to capture just the Red Blood Cells (RBCs). It then washes and filters the RBCs, readying them for return to the patient..
- *Postoperative Cell Salvage* — same process as Intraoperative Cell Salvage, except that it is conducted after, rather than during the surgery and is usually performed in the Post Anesthesia Care Unit (PACU) recovery room.
- *Platelet Rich Plasma (PRP) / Autologous Platelet Gel (APG)* — a by-product of blood (plasma) that is rich in platelets. PRP/APG allows the body to heal faster and more efficiently by taking advantage of the normal healing pathways at a greatly accelerated rate.
- *Fibrin Glue* — a pasty substance made from the patient’s own blood and applied directly to a wound to stop bleeding that cannot be controlled by other means.



The use of these techniques allows us to provide the below autologous therapies:

- Intraoperative Cell Salvage
- Postoperative Cell Salvage
- Platelet Sequestration
- Platelet Rich Plasma /Autologous Platelet Gel
- Isolated Growth Factors
- Platelet Derived Growth Factors
- Wound care / accelerated healing
- Blood Component Therapy
- Fibrin Glue
- Apheresis

A Comprehensive, 24/7 Turn-key Service

IMI provides blood salvage and platelet sequestration services for more than 1,000 autotransfusion cases in facilities across the southeast each year — 24 hours a day, seven



days a week. We maintain a capital equipment inventory of the latest AT technology to support this effort so you don't have to. And by providing clinicians who work in their home community, Impulse is able to

develop continuing relationships with each facility we serve. We know that there is no substitute for your trust in the OR, which is why we are committed to earning and maintaining it. It's also why each of our clinicians meet industry standards and are adept at the latest AT techniques and utilization methods.

Quality Assurance

IMI follows national guidelines and maintains accountability with several industry-leading associations. We also monitor patient-specific criteria and systems issues in great detail. Additionally, each piece of our equipment is diligently maintained and routinely inspected by hospital biomedical engineering departments.

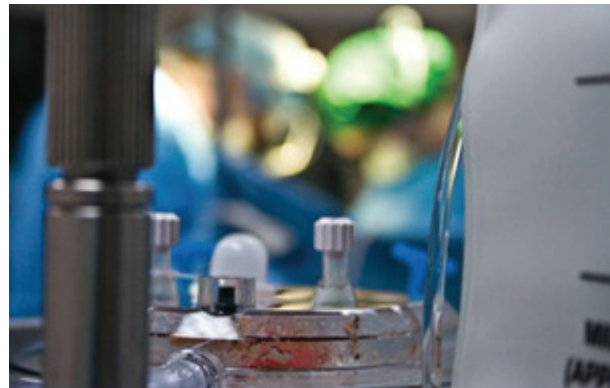
- *Training* — Training is provided by clinically experienced individuals with RN, PhD & RABT credentials and is comprised of closely supervised hands-on OR training supplemented by lecture-style teaching and one-on-one training. IMI AT clinicians are only allowed to perform those clinical activities for which they are trained.
- *Ongoing Education* — Autotransfusion is a technology-driven industry that requires operational training and certification of its professionals. Impulse AT clinicians precisely follow numerous guidelines and standards, while continuing to develop new skills and expand their clinical training.

About Impulse Monitoring

Impulse Monitoring, Inc. (IMI) provides monitoring and support services to hospitals and other facilities that include intraoperative neuromonitoring (IONM) for spinal, nerve and brain-related surgeries and autotransfusion (AT) services. IMI's AT service involves an attending clinician who uses state-of-the-art equipment to capture and cleanse a patient's own blood during surgery, making it available for trans-fusion instead of donated blood.

Visit the IMI website at:

www.impulsemonitoring.com.



Better insight. Better decisions. Better medicine.