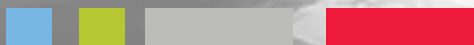


Cell Saver[®] 5+

Standard of Care in Autotransfusion



HAEMONETICS[®]
THE Blood Management Company

5+

Cell Saver[®] 5+

WALL 201001 010 1

Allogeneic transfusions: know the risks

What is the cost of complications associated with allogeneic blood?

What are your intraoperative and postoperative transfusion rates, respectively?

The risks and costs associated with the use of allogeneic blood are well documented. With a price up to 1,400 USD allogeneic blood is becoming more and more expensive. And because transfusions temporarily suppress the immune system, it puts patients at undue risk of infection and complications.¹

The risk of transfusion-related immunomodulation (TRIM)—the temporary suppression of the immune system—increases with the number of units transfused.^{2,3} Evidence indicates that TRIM results in increased bacterial and fungal infections, length of stay, and mortality.⁴

So, the more allogeneic blood you give a patient, the greater the risk of infection and other complications that increase length of stay and mortality.⁵ One study shows that allogeneic transfusion is associated with a 70% increase in mortality in CABG patients.⁶

1 Leal-Naval et al. Chest 2001;119:1461-1468

2 Blumberg N, Heal JM. Immunomodulation by Transfusion in: Perioperative Transfusion Medicine, 2006, eds. Spiess, Spence, Shander; pp. 153-168

3 Carson et al. Transfusion 1999;39:694-700

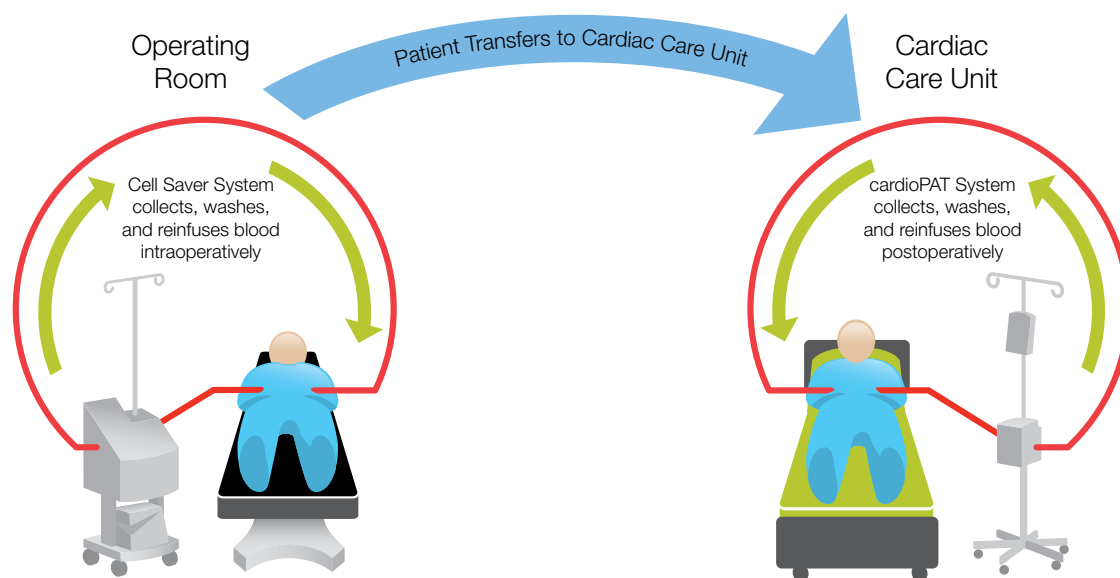
4 Shander A et al. Best Practice & Research Clinical Anesthesiology 21: pp 271-289, 2007

5 Vincent et al. JAMA 2002 Sep 25;288(12):1499-507

6 Engoren et al. Chest 2002;122:1309-15

Does your blood management program fully optimize cell salvage?

Perioperative autotransfusion begins with the first incision and ends when the wound drains are removed. To minimize the likelihood of unnecessary allogeneic transfusions, optimal blood management programs need to collect, wash, and reinfuse a patient's blood in the operating room and cardiac care unit. Only Haemonetics designs cardiovascular autotransfusion systems for the intra- and postoperative care settings to help ensure all salvageable blood is returned to the patient.



The Cell Saver® and cardioPAT® systems help you avoid unnecessary allogeneic transfusions and return fresh, high-quality blood throughout the perioperative care continuum in cardiovascular surgery.

Cell Saver 5+: perioperative cell salvage starts in the operating room

Haemonetics pioneered intraoperative cell salvage. Since its introduction in 1972 our Cell Saver® technology led the industry to become the standard of care.

The Cell Saver®5+ Autologous Blood Recovery System is designed for surgeries like CABG, valve replacement, trauma, orthopaedic, transplant, and other procedures where medium- to high-volume blood loss occurs. With the ability to deliver between 50–60% hematocrit and to remove nearly all traces of undesirable components such as free hemoglobin, the Cell Saver System is the standard of care and a critical tool to help avoid unnecessary allogeneic transfusions. And in a recent lab test, SmartSuction Harmony® Autoregulating Suction significantly reduced hemolysis. Based on this finding, when a SmartSuction Harmony device is used with the Cell Saver 5+ system there may be an increase in the number of viable red blood cells reinfused to patients.⁷

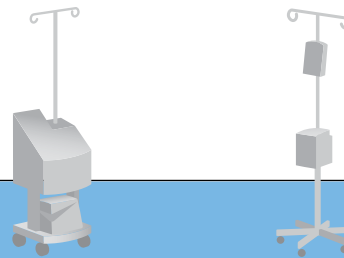


The Technologies That Make the Cell Saver 5+ System the Preferred Choice		
■ Separation technology		Latham bowl (invented by Haemonetics)
■ Multiple bowl sizes		70 mL, 125 mL, 225 mL
■ Platelet sequestration		Yes
■ Partial bowl collection and reinfusion		FDA approval to wash a partially-filled bowl allows you to reinfuse as many RBCs as possible
■ Effluent line sensor		Effluent is continually monitored to ensure RBCs are thoroughly washed and undesirable components removed
■ Suction		Onboard suction with SmartSuction Harmony System
■ RBC bags with integrated microaggregate filter		Optional 40-micron RBC filter bag eliminates inconvenience of docking stand-alone filter
■ Medium to high-speed processing		3–7 minute cycle time; in emergent situations can process up to 800 mL per minute

The core of every quality blood management program

Optimal blood management programs leverage a variety of tests, medications, and techniques to avoid unnecessary allogeneic transfusions. Intraoperative and postoperative autotransfusion must be at the core of these interventions and every quality blood management program because it ensures patients receive the highest quality blood possible—their own.

Allogeneic blood versus perioperative autotransfusion



	Allogeneic Blood Transfusion	Intraoperative Cell Saver® 5+ System	Postoperative cardioPAT® System
■ Avoidance of unnecessary allogeneic transfusion	No	Yes	Yes
■ Types of procedures used	Intra- and postoperative cardiovascular surgery	Cardiovascular surgeries and other high blood loss procedures	Cardiovascular postop: CCU, ICU
■ Hematocrit	50–60%	50–60%	70–80%
■ Red blood cell recovery	N/A	>80% ⁸	>80% ⁸
■ Albumin	Present	>95% removal ⁸	>95% removal ⁸
■ Free hemoglobin	Present	>95% removal ⁸	>95% removal ⁸
■ Heparin	N/A	>95% removal ⁸	>95% removal ⁸
■ Increase risk of severe infection in cardiac surgery	Infection rate ¹ 1 unit – >3% 2 units – 4% 3 units – 6% 4 units – 16%	Eliminates risk of infection and complications associated with allogeneic blood	
■ Cost	Up to 1,400 USD per unit fully burdened in US	Potential cost savings by eliminating unnecessary allogeneic transfusions and the associated risks of infection and immunosuppression	

Ordering Information

Description	List Number	Quantity per Case
■ Cell Saver 5+ System, Europe	02005-220-EP	1
■ Cell Saver 5+ Bowl Set (225 mL)	00263-00	8
■ Cell Saver 5+ Bowl Set (125 mL)	00261-00	8
■ Cell Saver 5+ Bowl Set (70 mL)	0291E-00	8
■ 70 mL Bowl Chuck Adapter	50292-00	1
■ Collection Reservoir, 3-Liter with 150 µm Raised Filter	00205-00	4
■ Collection Reservoir, 3-Liter with 20 µm Filter	00220-00	4
■ Replacement RBC Bag with Integrated Microaggregate Filter, 1000 mL	0245F-00	40
■ Replacement RBC Bag, 1000 mL	00245-00	40
■ Replacement Waste Bag, 10 Liter	00246-00	20
■ A&A Line	00208-00	20
■ Sequestration Kit	00244-00	10
■ Operator's Manual, EU	53063-XX	1
■ Quick Reference Guide, EU	102958-XX	1

Technical Information

Dimensions (H x W x D)

- Machine 94 cm × 41 cm × 37 cm (37 in. × 16 in. × 14.5 in.)
- Machine with Cart (IV pole down) 138 cm × 48 cm × 58 cm (54 in. × 19 in. × 23 in.)

Raising IV pole adds up to 37.5 in (95 cm) to the height dimensions above.

- Weight of Machine 32.2 kg (71 lbs)
- Weight of Cart 15.9 kg (35 lbs)
- Pump Speed 0–1000 mL/min (adjustable)
- Centrifuge Speed 2050–5650 rpm (adjustable)
- Voltage 110/220 VAC (± 15%), switchable
- Fuse Rating F2.5 A @ 250 V
- Operating Frequency 47–63 Hz
- Power Cord Length 4.9 m (16 ft.)

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