Cell Saver® 5+

Standard of care in intraoperative autotransfusion

INTEGRATED **DEVICES**

HAEMONETICS®
THE Blood Management Company™

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. At more than $1,400 per unit,[1] allogeneic blood is expensive. And because transfusions temporarily suppress the immune system, it puts patients at undue risk of infection and complications.[2]

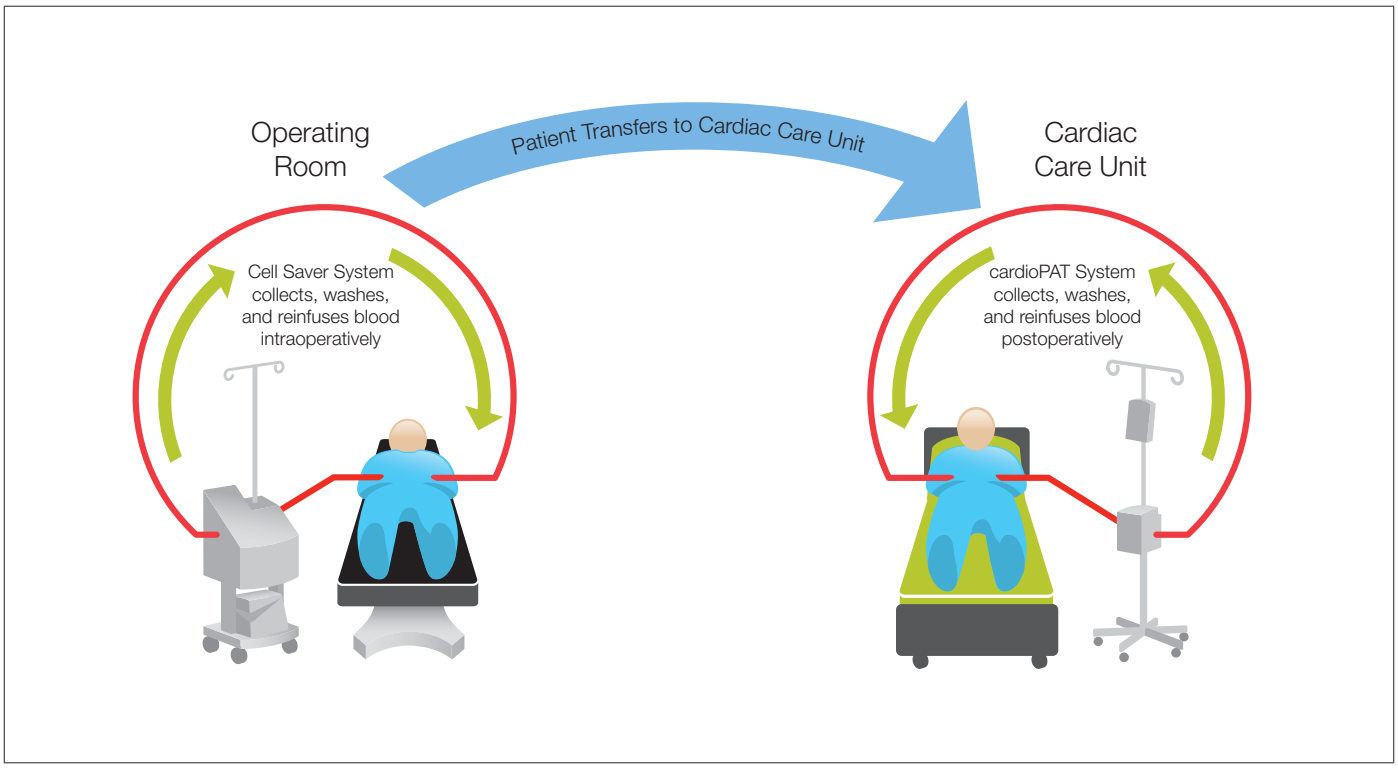
The risk of transfusion-related immunomodulation (TRIM)—the temporary suppression of the immune system—increases with the number of units transfused.[3] Evidence indicates that TRIM results in increased bacterial and fungal infections, length of stay, and mortality.[1]

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.[4] One study shows that allogeneic transfusion is associated with a 70% increase in mortality in CABG patients.[5]

1 Shander A et al. Best Practice & Research Clinical Anesthesiology 21: pp 271-289, 2007 [DR107512]
2 Leal-Noval et al. Chest 2001;119:1461-1468 [DR107496]
3 Carson et al. Transfusion 1999;39:694-700 [DR107514]
4 Vincent et al. JAMA 2002 Sep 25;288(12):1499-507 [DR107513]
5 Engoren et al. Chest 2002;122:1309-15 [DR107515]

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. Haemonetics' cardiovascular autotransfusion systems are designed 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 where medium- to high-volume blood loss occurs. With the ability to deliver between 50–60% hematocrit and superior wash capabilities, the Cell Saver system is a critical tool to help avoid unnecessary allogeneic transfusions. Based on lab tests, when a SmartSuction Harmony® Autoregulating Suction 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.[6]

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

6 Elkin KR, Yazer M, Kameneva M, Waters J. Transfusion 2007;47(11):20A-21A [DR107247]

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%	>80%
Albumin	Present	>95% removal	>95% removal
Free hemoglobin	Present	>95% removal	>95% removal
Heparin	N/A	>95% removal	>95% removal
Increase risk of severe infection in cardiac surgery	Infection rate[7] 1 unit – >3% 2 units – 4% 3 units – 6% 4 units – 16%	Eliminates risk of infection and complications associated with allogeneic blood	
Cost	$1,400 per unit fully burdened[8]	Potential cost savings by eliminating unnecessary allogeneic transfusions and the associated risks of infection and immunosuppression	

7 Leal-Noval et al. Chest 2001;119:1461-1468 [DR107496]
8 Shander A et al. Best Practice & Research Clinical Anesthesiology 21: pp 271-289, 2007 [DR107512]

To contact Customer Service...

Phone: (800) 225-5297 ■ Fax: (800) 860-1512
Email: CustomerServiceNA@haemonetics.com

Description	List Number	Quantity per Case
Cell Saver 5+ System, USA	02005-110-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)	0291A-00	8
70 mL Bowl Chuck Adapter	50292-00	1
Cell Saver 5 Fast Pack (263,205,208)	00260-00	4
Cell Saver 5 Fast Pack (263,220,208)	0260F-00	4
Cell Saver 5 Fast Pack (261,205,208)	00265-00	4
Cell Saver 5 Fast Pack (261,220,208)	0265F-00	4
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, USA	53234-50	1
Quick Reference Guide, USA	102958-50	1

Technical Information

Dimensions (H x W x D)

Machine	37 in × 16 in × 14.5 in (94 cm × 41 cm × 37 cm)
Machine with Cart (IV pole down)	54 in × 19 in × 23 in (138 cm × 48 cm × 58 cm)
Raising IV pole adds up to 37.5 in (95 cm) to the height dimensions above.	
Weight of Machine	71 lbs (32.2 kg)
Weight of Cart	35 lbs (15.9 kg)
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	16 ft (4.9 m)
Certifications	UL listed

Rx Only

Haemonetics Corporation ■ 400 Wood Road ■ Braintree, MA 02184 ■ USA ■ 800.225.5242 ■ www.haemonetics.com