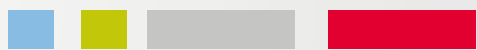




OrthoPAT®

The One Solution for
Orthopedic Perioperative Autotransfusion



HAEMONETICS®
THE Blood Management Company

Allogeneic, PAD, and unwashed transfusions: know the risks

What is the cost of complications associated with allogeneic blood?

How often do you transfuse allogeneic blood to your PAD patients?

Does the benefit of returning unwashed blood to your patients outweigh the risks?

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

While it's your patients' own blood, PAD can put them at risk for anemia, which may necessitate transfusions after surgery.^{3,4} Predonating blood is inconvenient for the patient, expensive, potentially wasteful, and depleted of 2,3 DPG,^{5,6} the chemical that helps release oxygen from RBCs to the tissues.

And when unwashed autologous blood is transfused, cytokines and other undesired biologic response modifiers remain in the blood, posing serious risks, including acute respiratory failure.⁷

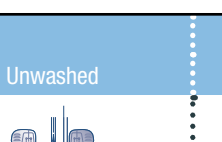
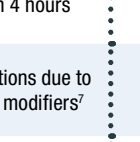

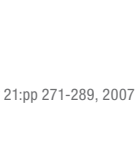
The new standard of care: washed perioperative autotransfusion

From the operating room to recovery, the OrthoPAT® Orthopedic Perioperative Autotransfusion System reduces unnecessary allogeneic transfusions and the associated risks and costs. It eliminates the need for PAD programs and returns a higher quality blood product than allogeneic, PAD, and unwashed systems. 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 OrthoPAT system there may be an increase in the number of viable red blood cells reinfused to patients.⁸



Eliminate the guesswork — give patients only what they need

The OrthoPAT System supports a “collect first” approach by allowing you to simply recover shed blood when you’re not sure how much your patient will bleed. With the ability to attach to a processing set, the QuickConnect Reservoir becomes your safety net; so, you return the highest quality blood only to the patients who need it, and collect blood cost-effectively for those who don’t. In short, the OrthoPAT System ensures you avoid unnecessary allogeneic transfusions for every patient.

	Unwashed	Stored Blood		OrthoPAT® Blood
		Allogeneic	PAD	
				
▪ Hematocrit	Low percentage of RBCs	50–60%		70–80% ⁹
▪ 2,3 DPG	Reinfused within 4 hours	Reduced with storage ¹⁰	Reduced with storage ¹⁰	Reinfused within 4 hours ¹⁴
▪ Nitric Oxide	Reinfused within 4 hours	Reduced with storage ¹¹	Reduced with storage ¹¹	Reinfused within 4 hours ¹⁴
▪ Increase risk of serious infection	Potential complications due to biologic response modifiers ⁷	1 unit ¹² = 1.1x 3 units ¹² = 1.4x 5 units ¹² = 1.7x	Anemia and allogeneic transfusion	Reduces exposure to allogeneic blood
▪ Cost of blood	Up to \$250 per procedure	\$1,400 per unit fully burdened ¹	\$491–539 per unit ¹³	Potential cost savings by reducing or eliminating allogeneic and PAD blood, and associated clinical complications
▪ Washout ⁹				
▪ Albumin	0%	N/A	N/A	>95%
▪ Free hemoglobin	0%	N/A	N/A	>95%
▪ Heparin	0%	N/A	N/A	>95%

The OrthoPAT System returns the patient’s own high-quality blood without the risks of complications and infection that are associated with stored and unwashed blood

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4 Cushner FD et al. Orthopedic-induced anemia: the fallacy of autologous donation programs. 2005, Clin Orthop Relat Res;431:145-9

5 Chin-Yee I, Spence RK. Blood Storage in: Perioperative Transfusion Medicine, 2006, eds. Spiess, Spence, Shander, Lippincott, Williams & Wilkins, Philadelphia, PA. pp. 199-210

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

7 Bierbaum et al. J Bone Joint Surg Am 1999;81:2-10

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

9 On file at Haemonetics Corporation

10 AABB Technical Manual, 14th ed., 2002, pp 171

11 Reynolds et al. Proc Natl Acad Sci U S A. 2007 Oct 23;104(43):17058-62. Epub 2007 Oct 11

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

13 Clark et al. J Arthroplasty. 2006 Jan;21(1):23-35

14 Standards for Perioperative Autologous Blood Collection and Administration, 3rd ed., 2007, pp 21

Ordering Information

Description	List Number	Quantity per Case
■ OrthoPAT System, USA	1050-110-ENG	1
■ QuickConnect Reservoir	OPT-R-1000	6
■ QuickConnect Processing Set	OPT-P-1000	6
■ Centrifuge Insert	104515-00	1
■ OrthoPAT Integrated Processing Set	1150H-00	6
■ Replacement RBC Bag with Integrated Microaggregate Filter, 400 mL	1200F-00	40
■ Replacement RBC Bag, 400 mL	01200-00	40
■ Replacement Waste Bag, 3 Liter	01300-00	40
■ A&A Line	1400T-00	6
■ Post-op Line	01500-00	20
■ Extended Post-op Line	01550-00	20
■ Operator's Manual, USA	T1118-01	1
■ Quick Reference Guide with QuickConnect, USA	105177-50	1
■ Quick Reference Guide, USA	51080-50	1
■ Estimated Blood Loss Worksheet, USA	51078-50	1
■ Telescoping IV Pole with 27" Base	101942-00	1
■ Training Video	101572-50	1

Technical Information

■ Base Unit	8 in. x 10.5 in. x 11.5 in. (20.3 cm x 26.7 cm x 29.2 cm)
■ Weight	20 lbs (9.2 kg)
■ Voltage	100 to 240 volts
■ Fuse Rating	F2.5A @ 250V
■ Operating Frequency	50 or 60 Hz
■ Power Cord Length	15 ft (4.5 m)
■ Battery	30-minute Rechargeable Nickel Metal Hydride
■ Certifications	ETL listed
■ Mounts onto Standard IV Pole	
■ Processes up to 2 Liters of Fluid per Hour	