



FEWER STEPS TO FULL SUPPORT

CentriMag™ Acute Circulatory
Support System with
Full MagLev™ Flow Technology

The **ONLY** device approved for
30-day LVAD, RVAD and BiVAD*



CENTRIMAG™ ACUTE CIRCULATORY SUPPORT SYSTEM

WITH FULL MAGLEV™ FLOW TECHNOLOGY

The CentriMag™ Acute Circulatory Support System with Full MagLev™ Flow Technology is designed to deliver excellent hemocompatibility across the widest range of patient applications.^{1,2}



BACKED BY AN UNMATCHED LEGACY OF EXPERIENCE

LOW

Device failure rate for
consistent, trusted
performance¹⁻⁴

440+

Published
articles⁵

70,000+

CentriMag™ Pumps
sold since 2006



“IF IT WASN'T FOR MY INCREDIBLE CARE TEAM, AND THIS TRULY AMAZING TECHNOLOGY, I DON'T BELIEVE I WOULD BE HERE TO COACH MY SON'S BASEBALL GAMES.”
— MIKE S.

FULL MAGLEV™ FLOW TECHNOLOGY PROMOTES GENTLE BLOOD HANDLING¹⁻³

WIDE BLOOD-FLOW PATHWAYS

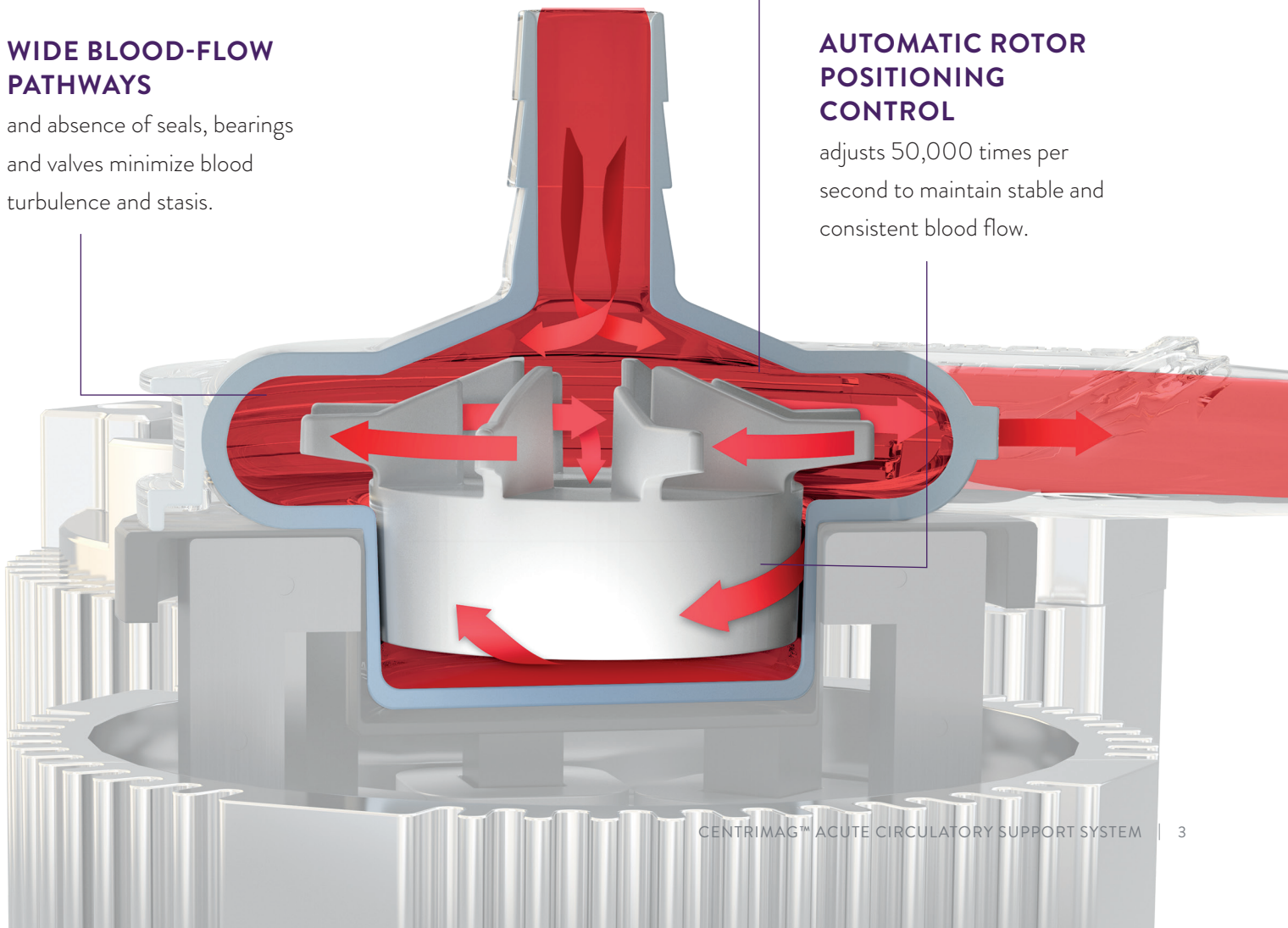
and absence of seals, bearings and valves minimize blood turbulence and stasis.

FREE-FLOATING MAGNETICALLY LEVITATED ROTOR

prevents surface-to-surface contact that could cause blood trauma.

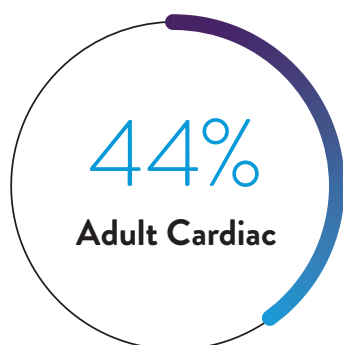
AUTOMATIC ROTOR POSITIONING CONTROL

adjusts 50,000 times per second to maintain stable and consistent blood flow.



EXCELLENT SURVIVAL OUTCOMES AT DISCHARGE

ELSO INTERNATIONAL SUMMARY:
SURVIVAL TO DISCHARGE⁶



Survival to discharge for other adult support indications includes 54% overall, 30% ECPR and 59% pulmonary.

CENTRIMAG™ BLOOD PUMP:
SURVIVAL TO DISCHARGE⁷



PUMP DESIGNED FOR OPTIMAL HEMOCOMPATIBILITY^{1,2,8}

FULL MAGLEV™ FLOW TECHNOLOGY
ENABLES EXCELLENT HEMODYNAMICS^{3,4,8}

LOW DEVICE-RELATED THROMBOSIS¹

2.5%

LOW HEMOLYSIS¹

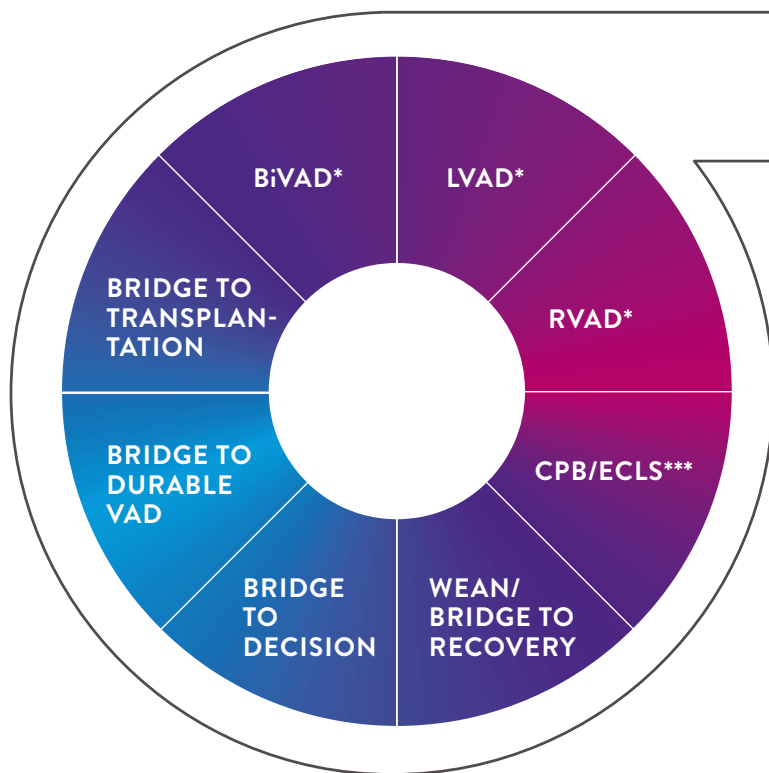
5%

MINIMIZED BLOOD STAGNATION,
FRICTION AND SHEAR STRESS^{2,3,8}



MOST VERSATILE SYSTEM FOR ESCALATION AND DE-ESCALATION OF THERAPY⁹⁻¹¹

The CentriMag™ System is the most versatile platform available, addressing the broadest spectrum of clinical challenges, eliminating the need to train on multiple platforms, and reducing the burden on center resources.



TRUSTED FOR A WIDE RANGE OF PATIENT TYPES AND SIZES

CentriMag System hardware (console, motor and monitor) is shared between the adult and pediatric pump options.

**PRODUCES FLOWS OF UP TO 10 LPM
WITH FEWER ROTATIONS PER MINUTE³**

Adult and pediatric pump options are available.*



CENTRIMAG™ PRE-CONNECTED PACK

FEWER STEPS TO FULL SUPPORT

EXPERIENCE THE
CONVENIENCE
OF A PRE-CONNECTED
CIRCUIT WITH THE
CENTRIMAG™
PRE-CONNECTED PACK

Driven by the CentriMag™ Blood Pump, the pre-connected pack is a turnkey solution designed with the patient in mind for excellent hemocompatibility and unparalleled versatility.

When time is of the essence, quick and easy setup and priming in minutes ensure optimized efficiency of patient care.

CIRCUIT

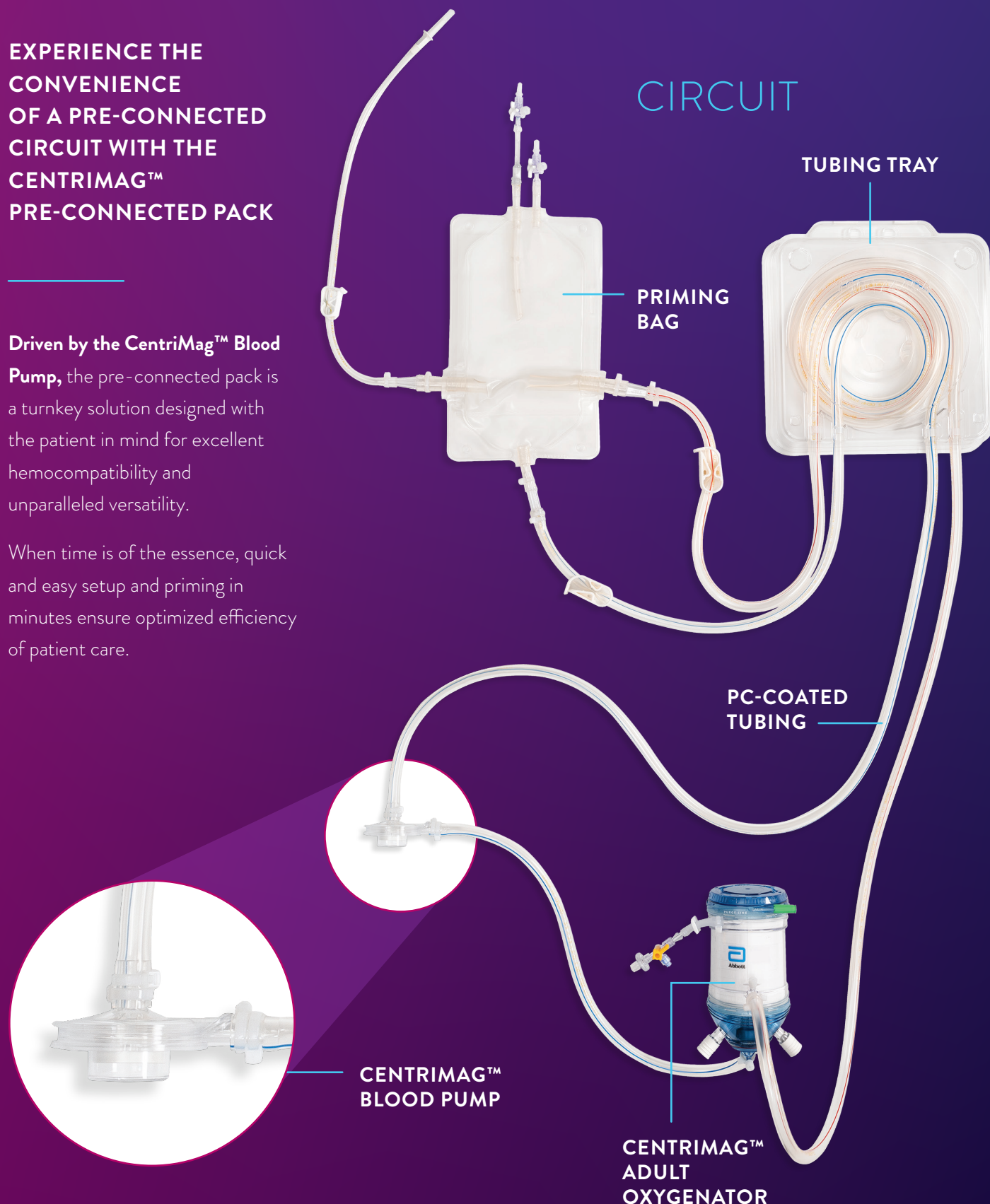
TUBING TRAY

PRIMING
BAG

PC-COATED
TUBING

CENTRIMAG™
BLOOD PUMP

CENTRIMAG™
ADULT
OXYGENATOR



ACCESSORIES



CUTTER (1)



**HIGH-FLOW PIGTAILS
WITH THREE-WAY
STOPCOCK (4)**



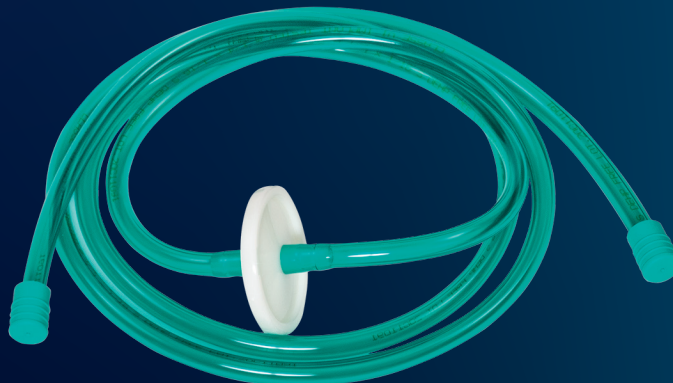
**3/8-INCH
CONNECTORS
WITH LUER (2)**



**TUBING
CLAMPS (5)**



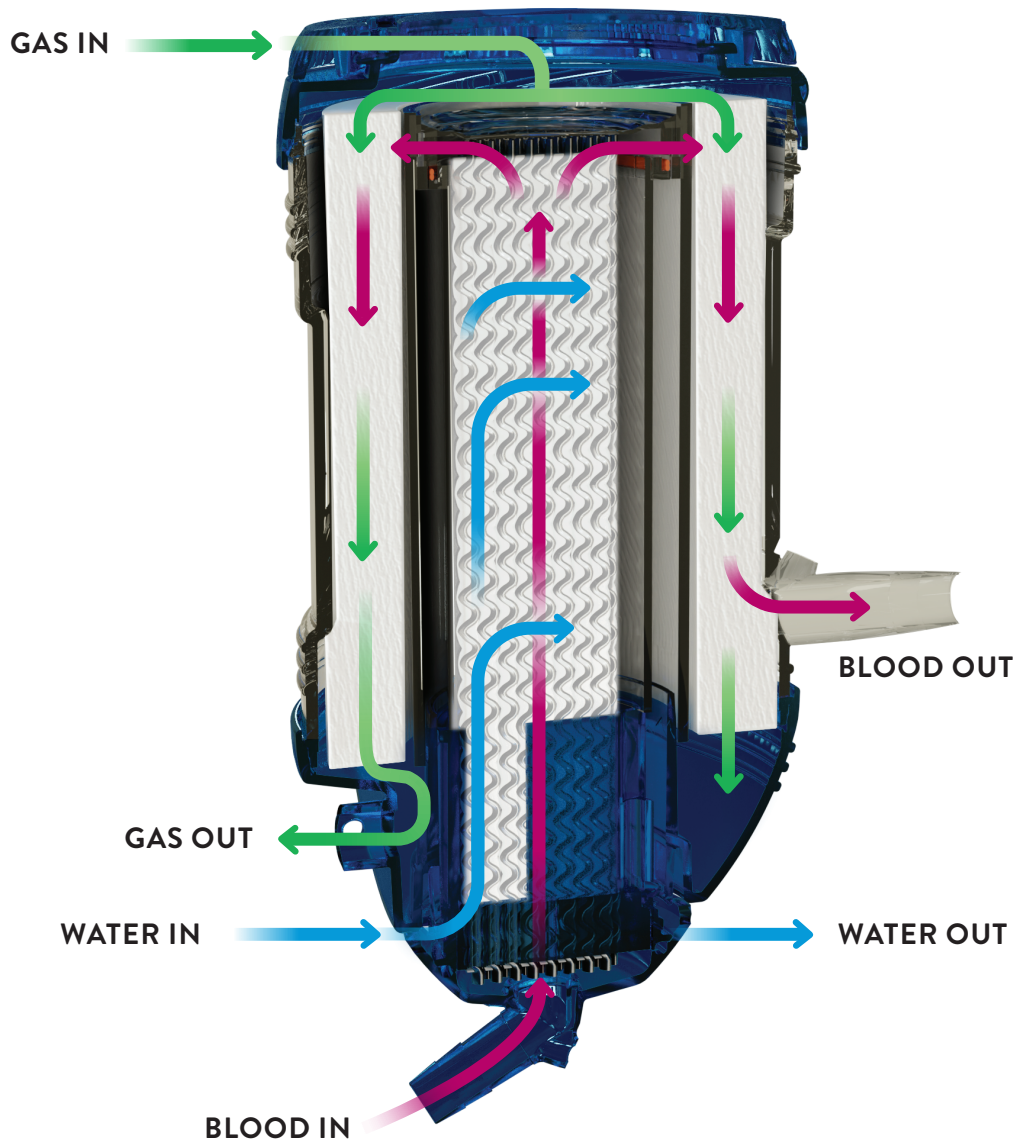
TIE BANDS (8)



GAS LINE (1)

AMG PMP OXYGENATORS

When paired with the Full MagLev™ Flow Technology of the CentriMag™ and PediMag™ Blood Pumps, our portfolio of AMG PMP Oxygenators provides a comprehensive solution for a wide variety of patients.



AMG PMP OXYGENATOR BENEFITS AND FEATURES

- PMP fibers ensure reliable gas-exchange performance over the duration of use.
- PC coating minimizes inflammation¹ and thrombosis.²
- Stainless steel heat exchanger helps eliminate risk of potential contamination.
- Shape, fiber orientation and blood-flow path are designed for low shear stress.



CentriMag™ Adult
Oxygenator

AMG PMP OXYGENATORS



AMG PMP Adult
Oxygenator



AMG PMP Pediatric
Oxygenator



AMG PMP Infant
Oxygenator

AMG PMP Oxygenators and Oxygenator Holder are manufactured by Eurosets s.r.l. and distributed by Abbott.



CENTRIMAG™ SYSTEM TRANSPORTER

GETS PATIENTS WHERE THEY NEED TO BE

A COMPACT MODULAR SOLUTION FOR IN-HOSPITAL OR OUT-OF-HOSPITAL TRANSPORTATION

Get patients where they need to be with the next-generation CentriMag™ System Transporter. The CentriMag™ System Transporter is an optional accessory to the CentriMag™ Acute Circulatory Support System to facilitate patient transport by ground vehicle or aircraft as well as operation in the EMS environment.

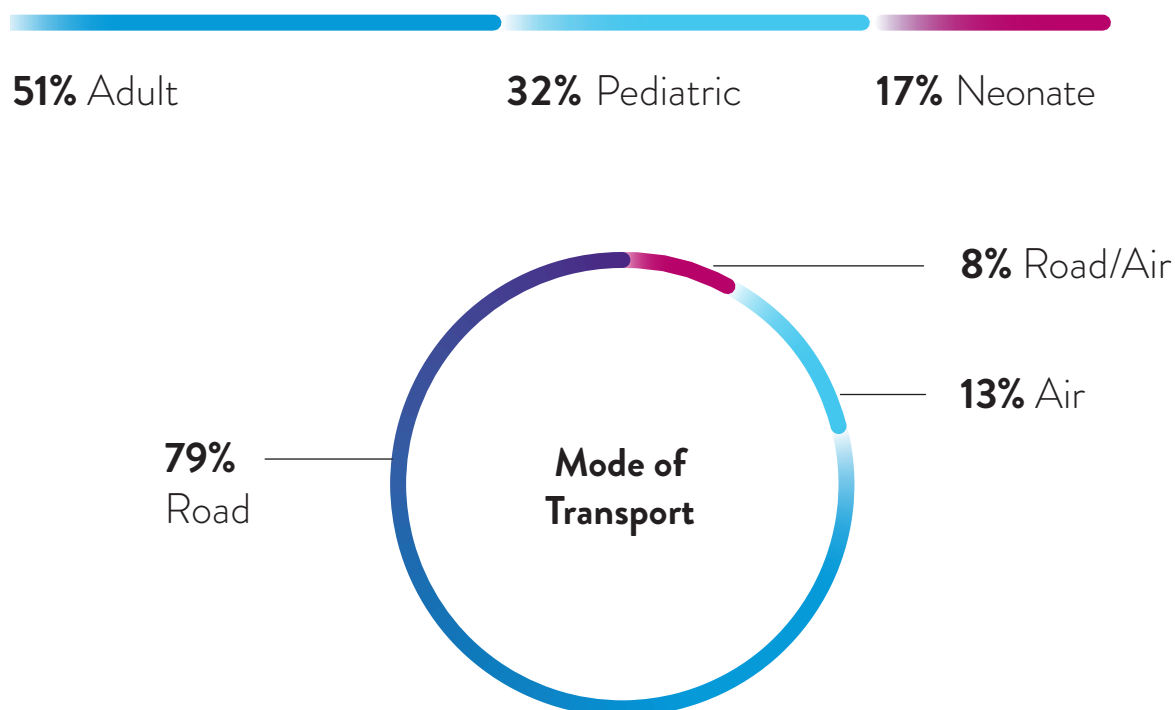


TRANSPORT SUCCESS

DEMONSTRATED BY EXCELLENT REAL-WORLD EXPERIENCE¹²

**BUILDING ON 10 YEARS OF TRANSPORT DATA WITH THE
CENTRIMAG™ ACUTE CIRCULATORY SUPPORT SYSTEM¹**

Mobile ECMO Transports Demographic Breakdown



MOBILE ECMO IS SAFE AND RELIABLE TO TRANSFER THE SICKEST OF PATIENTS



5.5 hours
average transport
duration



**No major
complications**
or deaths during
transport



> 84% survival
to hospital
discharge after
transport

FOR MORE INFORMATION on the CentriMag™ Acute Circulatory Support System or how to order the different system components, contact your Abbott representative.

EMPOWERING THE TRANSFORMATION OF HEART FAILURE

From treatment to ongoing patient management, Abbott is committed to working with you to transform heart failure and improve more patient lives.

BiVAD = biventricular assist device; CPB = cardiopulmonary bypass; ECLS = extracorporeal life support; ECMO = extracorporeal membrane oxygenation; ECPR = extracorporeal cardiopulmonary resuscitation; ELSO = Extracorporeal Life Support Organization; EMS = emergency medical services; LVAD = left ventricular assist device; PC = phosphorylcholine; PMA = pre-market approval; PMP = polymethylpentene; RVAD = right ventricular assist device; VA-ECMO = veno-arterial extracorporeal membrane oxygenation; VAD = ventricular assist device

*PMA for 30-day use of CentriMag™ System excludes: PediMag™ Blood Pump and any other pediatric components or accessories.

**As part of a VA-ECMO circuit.

***ECMO clearance for >6-hour use is indicated for the CentriMag™ Blood Pump to be used with: CentriMag™ Console, CentriMag™ Motor, Mag Monitor, and Flow Probe. ECMO clearance for the CentriMag™ Blood Pump is for adult use only and excludes: CentriMag™ Drainage Cannula and CentriMag™ Return Cannula, PediMag™ Blood Pump and any other pediatric components or accessories.

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4. Bhama JK, Kormos RL, Toyoda Y, et al. Clinical experience using the Levitronix CentriMag system for temporary right ventricular mechanical circulatory support. *J Heart Lung Transplant.* 2009;28:971-976.
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6. Extracorporeal Life Support Organization. ECLS Registry Report. 2020.
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12. Corno A, Faulkner G, Harvey C. Mobile extracorporeal membrane oxygenation. *ASAIO Journal.* 2020. doi:10.1097/MAT.00000000000012786

Abbott

6101 Stoneridge Dr., Pleasanton, CA 94588 USA, Tel: 1 925 847 8600
Cardiovascular.Abbott/CentriMag

Rx Only

Brief Summary: Prior to using these devices, please review the Instructions for Use for a complete listing of indications, contraindications, warnings, precautions, potential adverse events and directions for use.

CentriMag™ Adult Pre-connected Pack Indications for Use [510(k) Clearance; 6-hour use]: The CentriMag™ Adult Pre-connected Pack is indicated for use with the CentriMag™ Acute Circulatory Support System to provide physiologic gas exchange of the blood and to pump a patient's blood through an extracorporeal circuit for periods lasting less than six (6) hours for the purpose of providing either: (i) Full or partial cardiopulmonary bypass during open surgical procedures on the heart or great vessels; or (ii) Temporary circulatory bypass for diversion of flow around a planned disruption of the circulatory pathway necessary for open surgical procedures on the aorta or vena cava.

CentriMag™ Circulatory Support System Indications [PMA Approval; 30-day use]: Temporary circulatory support for up to 30 days for one or both sides of the heart to treat post-cardiotomy patients who fail to wean from cardiopulmonary bypass, providing a bridge to decision when it is unclear whether the patient's heart will recover or whether the patient will need alternative, longer-term therapy.

CentriMag™ Circulatory Support System Contraindications [PMA Approval; 30-day use]: The CentriMag™ Circulatory Support System is contraindicated for use as a cardiotomy suction device. The system is also contraindicated for patients who are unable or unwilling to be treated with an appropriate anticoagulant such as Heparin or a comparable alternative.

CentriMag™ Circulatory Support System Adverse Events [PMA Approval; 30-day use]: Adverse events that may be associated with mechanical circulatory support can include, but are not limited to, the following: bleeding on device support, hemolysis, infection, renal failure/dysfunction/complication, respiratory dysfunction, hepatic dysfunction, cardiac arrhythmias (atrial or ventricular), thromboembolism (venous and arterial non-CNS), hypotension, hypertension, device malfunction or failure, psychiatric events, right heart failure, and death.

Humanitarian Device Statement: Caution: Humanitarian Device. The CentriMag Circulatory Support System is authorized by Federal Law for temporary circulatory support for up to 30 days for patients in cardiogenic shock due to right ventricular failure. The effectiveness of this device for this use has not been demonstrated.

CentriMag™ RVAS Indications [Humanitarian Exemption Device (HDE) Approval; 30-day use]: The CentriMag Circulatory Support System is intended to provide temporary circulatory support for up to 30 days for patients in cardiogenic shock due to acute right ventricular failure.

CentriMag™ RVAS Contraindications [Humanitarian Exemption Device (HDE) Approval; 30-day use]: The CentriMag Circulatory Support System is contraindicated for use as a cardiotomy suction device. The system is also contraindicated for patients who are unable or unwilling to be treated with an appropriate anticoagulant such as Heparin or a comparable alternative.

CentriMag™ Blood Pump Indication [ECMO, 510(k) Clearance; >6-hour use]: The CentriMag™ Blood Pump for use with CentriMag™ Acute Circulatory Support System (Motor, Monitor, Console, and Flow Probes) is indicated for controlling blood flow as part of an extracorporeal membrane oxygenation (ECMO) circuit. ECMO is intended to provide assisted extracorporeal circulation and physiologic gas exchange of the patients' blood for adult patients with acute respiratory failure and/or acute cardiopulmonary failure, where other available treatment options have failed, and continued clinical deterioration is expected or the risk of death is imminent.

CentriMag™ Blood Pump Contraindications [ECMO, 510(k) Clearance; >6-hour use]: The CentriMag™ System is contraindicated for use as a cardiotomy suction device. The System is also contraindicated for patients who are unable or unwilling to be treated with an appropriate anticoagulant such as Heparin or a comparable alternative.

CentriMag™ Blood Pump Adverse Events [ECMO, 510(k) Clearance; >6-hour use]: Potential adverse events associated with the use of extracorporeal membrane oxygenation include, but are not limited to the following: Death, Mechanical Failures/Dysfunction, Bleeding (including Cardiac Tamponade), Hemolysis (including Hemoglobinuria, Anemia, Hyperbilirubinemia), Neurologic Dysfunction (including Stroke, Seizures), Cardiac Dysfunction (including Myocardial Infarction, Arrhythmias, Right/Left Heart Failure), Hypertension, Hypotension, Vascular (including Air Embolism, Thromboembolism (venous/arterial), Limb Ischemia, Vascular Damage) Pulmonary Dysfunction (including Pulmonary Embolism, Respiratory Failure), Renal Dysfunction, Cardiogenic Shock, Hypovolemia, Hypervolemia, Hepatic Dysfunction, Coagulation Disorders (including Thrombocytopenia, DIC), Infection (including Wound Dehiscence), Metabolic/Respiratory Acidosis, Psychiatric Disorder.

CentriMag™ Circulatory Support System Indications [510(k) Clearance; 6-hour use]: The CentriMag Extracorporeal Blood Pumping System is a non-roller-type cardiopulmonary and circulatory bypass blood pump used to pump a patient's blood through an extracorporeal circuit for periods lasting less than 6 hours for the purpose of providing either: i. Full or partial cardiopulmonary bypass (i.e., circuit includes an oxygenator) during open surgical procedures on the heart or great vessels; or ii. Temporary circulatory bypass for diversion of flow around a planned disruption of the circulatory pathway necessary for open surgical procedures on the aorta or vena cava

CentriMag™ Circulatory Support System Contraindications [510(k) Clearance; 6-hour use]: The CentriMag Circulatory Support System is contraindicated for use as a cardiotomy suction device. The system is also contraindicated for patients who are unable or unwilling to be treated with an appropriate anticoagulant such as Heparin or a comparable alternative.

PediMag™ Blood Pump Indications for Use [510(k) Clearance; 6-hour use]: The PediMag Blood Pump is indicated for use with the CentriMag™ Console and Motor. It is a non-roller-type cardiopulmonary and circulatory bypass blood pump used to pump a patient's blood through an extracorporeal circuit for periods lasting less than 6 hours for the purpose of providing either: 1. Full or partial cardiopulmonary bypass (i.e., circuit includes an oxygenator) during open surgical procedures on the heart or great vessels; or 2. Temporary circulatory bypass for diversion of flow around a planned disruption of the circulatory pathway necessary for open surgical procedures on the aorta or vena cava

PediMag™ Blood Pump Contraindications [510(k) Clearance; 6-hour use]: The PediMag Blood Pump is contraindicated for use as a cardiotomy suction device. The CentriMag Circulatory Support System is contraindicated for use as a cardiotomy suction device. The system is also contraindicated for patients who are unable or unwilling to be treated with an appropriate anticoagulant such as Heparin or a comparable alternative.

AMG PMP Adult Oxygenator Indications [510(k) Clearance; 6-hour use]: The AMG MODULE PMP NO T.P. STERILE is intended for use in adult surgical procedures requiring extracorporeal gas exchange support and blood temperature control for periods of up to 6 hours. The AMG MODULE PMP NO T.P. STERILE is intended to be used in an extracorporeal perfusion circuit to oxygenate and remove carbon dioxide from the blood and to cool or warm the blood during routine cardiopulmonary bypass procedures up to 6 hours in duration. Contact with blood for a longer period of time is undesirable. AMG MODULE PMP NO T.P. STERILE is an adult oxygenator. The AMG MODULE PMP NO T.P. STERILE should be used in combination with medical devices listed in section "Medical devices for use with the AMG MODULE PMP NO T.P. STERILE."

AMG PMP Adult Oxygenator Contraindications [510(k) Clearance; 6-hour use]: This device used for any other purposes than for the indicated intended use is the responsibility of the user. See Instructions for Use.

AMG PMP Pediatric Oxygenator Indications [510(k) Clearance; 6-hour use]: The device is indicated for patients who undergo cardiopulmonary bypass surgery requiring extracorporeal circulation for 6 hours or less with a maximum blood flow rate of 4 liters/minute.

AMG PMP Pediatric Oxygenator Contraindications [510(k) Clearance; 6-hour use]: No contraindications are known if the device is used for the purpose described and in accordance with the stated operating conditions. Do not use the device for any purpose other than indicated.

AMG PMP Infant Oxygenator Indications [510(k) Clearance; 6-hour use]: The device is indicated for patients who undergo cardiopulmonary bypass surgery requiring extracorporeal circulation for 6 hours or less with a maximum blood flow rate of 1.5 liters/minute.

AMG PMP Infant Oxygenator Contraindications [510(k) Clearance; 6-hour use]: No contraindications are known if the device is used for the purpose described and in accordance with the stated operating conditions. Do not use the device for any purpose other than indicated.

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