LifePort® Kidney and Liver Transporters: Setting the New Standard

December 2022
About Organ Recovery Systems

- Founded in 1998
- Mission: extend lives by creating faster, safer, easier ways to transport donated organs
- Vision: deliver exceptional clinical tools and services to help provide more and better-quality organs
- Dedicated to the transplant community through key alliances with partner organizations and clinical advisors with 200+ years of preservation experience
- Reinvest profits into research that improves preservation technology
Key Technology: Hypothermic Machine Perfusion

- Specially formulated acellular solution is pumped through the organ at hypothermic temperatures to minimize tissue damage
- Mimics the flow of blood through the organ vasculature
- Proven advantages over static cold storage
Our Kidney and Liver Transporters

**LifePort Kidney Transporter**
- Provides a sealed, sterile environment for kidney perfusion in a lightweight, powered and portable device
- Introduced in 2003 and now in wide use with over 175,000 kidneys preserved

**LifePort Liver Transporter**
- Delivers precision-controlled perfusion through the liver’s hepatic artery and portal vein
- Used in several clinical studies
- Approval and launch expected in early 2023
Key LifePort Product Features

- Perfusion Circuit protects the organ and the perfusate under aseptic conditions
- Preservation solutions specially formulated to preserve kidney or liver viability
- Sterile drape maintains aseptic conditions while connecting the organ inside the device
- Custom-made cannulas provide secure connections to the organ vasculatures
LifePort Safety Features

• Ultrasonic bubble detectors designed to prevent air from entering the vasculature
• User-controlled parameters to protect the organ
  o Kidney: pressure-controlled, time limited
  o Liver: flow-controlled, pressure limited
• Gentle flow increase during vasodilation to avoid barotrauma
• Ice and water surround the Perfusion Circuit, serving as backup for ultimate safety
Optimized for Transportability

- Easy to set up, use, and monitor the organ from donor hospital to transplant center
- Battery or AC power so the LifePort can continue perfusion during transportation
- Can perfuse end-ischemically, e.g., after initial cold storage, if transportation isn’t immediately available
Shared Form Factor

Innovative design and engineering approaches that we pioneered with the Kidney Transporter have been brought over to the Liver Transporter

- Insulated housing
- Sealed covers
- Ergonomic carry handles
- Easy-to-read data display
- Electric plug and/or battery powered
Shared Design Features

1) Organ submerged and secured in cradle within sterile Perfusion Circuit
2) Micron filter prevents particles from occluding perfusion
3) Display and user interface with temperature monitoring
4) Ice Container maintaining hypothermic temperature
Shared Technical Features

1) Same Pump Technology
2) Ultrasonic Air Bubble Detector
3) Pressure Sensor Cable
4) Bubble Trap
Kidney Transporter-Specific Features

Control Panel and Display Interface with real-time display of:

- Organ ID
- Pressure
- Temperature
- Flow
- Renal resistance

LifePort Data Station

- Workstation to view and save kidney data
Optional Oxygenation

- Pre-charging the machine perfusion solution with 100% oxygen offers simplicity and portability
- Increases the perfusate oxygen concentration (pO₂)
- Use with any LifePort Kidney Transporter
- Potential to reverse damage done during warm ischemia¹

Liver Transporter-Specific Features

Precision controlled, dual perfusion of the liver’s hepatic artery and portal vein

Programmable display for easy viewing and control of:
- Real-time perfusion status
- Organ ID number and blood type
- Cross-clamp and total infusion time
- Perfusate temperature
- Hepatic and portal flow/pressure
- Total flow
How Kidney Transporter Improves Outcomes

Hypothermic machine perfusion of kidneys vs. static cold storage (SCS):

- Reduces delayed graft function (DGF) by 8%, which can reduce length of stay and failure recurrence\(^1\)
- Significant increase in graft survival at 1 year and 3 years\(^2\)
- Significant decrease in discards of higher KDPI kidneys, e.g., kidneys with higher risk of graft failure\(^3\)

In two controlled studies comparing liver HMP to SCS:

- Fewer patients had ischemic biliary complications with HMP livers\(^1,2\)

- HMP liver recipients recovered faster with shorter ICU and shorter hospital stays\(^1,2\)

**Biliary Complications**
- HMP 13%
- CS 43%

**4.4 Days**
- HMP liver recipient hospital stay

---

How HMP and LifePort Liver Transporter Can Improve Outcomes

Results from the PILOT Clinical Trial show:

• Fewer overall complications with livers preserved by HMP
• Shorter hospital length of stay when livers were preserved by HMP

Overall Complications
PNF, Graft Failure, Biliary, EAD

Hospital Stay
Shorter hospital and ICU stay
Hypothermic Machine Perfusion: The New Standard

• Our innovative transporter technology helps meet the increasing need for viable kidneys and livers
• We’re focused on using technology to increase the safety of kidney and liver preservation
• Clinical data shows that hypothermic machine perfusion leads to better outcomes for recipients

LifePort Kidney Transporter

LifePort Liver Transporter
Thank you!

Chicago
1 Pierce Place Ste 475W
Itasca, IL 60143
USA
T +1.847.824.2600
F +1.847.824.0234
Perfusion Helpline
+1.866.682.4800

Brussels
Culliganlaan 1B
1831 Diegem
Belgium
T +32.2.715.0000
F +32.2.715.0009
Perfusion Helpline
+32.2.715.0005

São Paulo
170 Moema Ave Ste 11&12
São Paulo, SP 04077-020
Brazil
T +55.11.98638.0086
Perfusion Helpline
+55.11.98638.0086

www.organ-recovery.com