



## For Immediate Release

**Media Contact:** Stephen Chavez  
**Phone:** +1 (210) 310-8215  
**E-mail:** [stephen.d.chavez@gmail.com](mailto:stephen.d.chavez@gmail.com)

### **DCD and Ex-Vivo Heart Perfusion Highlights at the 38<sup>th</sup> Annual Meeting & Scientific Sessions of the International Society for Heart and Lung Transplantation (ISHLT)**

**NICE, FR April 12, 2018** – Researchers shared the results of several studies focused on donation after circulatory death (DCD) and usages of ex-vivo heart perfusion during **Oral Session 2 — Thinking Inside the Box: DCD Donation and Ex-vivo Heart Perfusion**. The information was shared during the International Society for Heart and Lung Transplantation (ISHLT) 38th Annual Meeting & Scientific Sessions. After 50 years since the first heart transplant was performed, presenters reflected during this afternoon’s symposium, on advancements in last 50 years and what’s next within the heart transplant specialty.

#### **Non Ischemic Heart Preservation**

Heart preservation has taken a step forward with a new method which extends the time window when a heart transplant is possible. In the presentation, Johan Nilsson, MD, PhD, shared experiences from the first human transplantation using the new method—non ischemic heart preservation method (NIHP)—Skåne University Hospital in Sweden. This new method uses the NIHP system, essentially a mini heart-lung machine which supplied the donor heart with an oxygenated, Hyperoncotic, nutrition, hormone solution with erythrocytes during transportation. The new method means that heart preservation is extended from the current four hours to at least 12.

Standard methods for heart preservation before transplant include cold ischemic storage of the heart, the process of placing a heart in refrigerated boxes after its blood supply has been removed in order to transport the organ to its donor. The basis of this currently on-going clinical trial was success of the NIHP method in a porcine study where heart preservation reached 24 hours.

“DCD donors and new methods to preserve organs from non-traditional donors continues to be a hot topic among researchers and clinicians as the overall organ shortage issue is not going away any time soon,” said Christian Benden, MD, FCCP, Scientific Program Chair for the ISHLT 38<sup>th</sup> Annual Meeting and Scientific Sessions.

#### **Early Outcomes from DCD Heart Transplantation: A Single Center Experience**

In the largest single center experience to date, researchers presented early outcomes of donation after circulatory death (DCD) heart transplantation compared to a matched donation after brain dead (DBD). The study was conducted over the course of more than two and half years (February 2015 to October 2017) and a total of 93 percent of DCD heart transplant recipients met survival to discharge compared to 97 percent of DBD recipients. Overall, the results suggest that DCD donor hearts continue to be a viable supplement to current practice with DBD donors.

#### **Donation After Circulatory Death (DCD) Heart Transplantation in Australia: An Update of Current Practices and Outcomes**

Since 2014, 22 successful DCD heart transplants have occurred with all DCD hearts recovered using the Transmedic OCS Heart™.

-more-



Examining data from a three-year review of DCD heart transplants at St. Vincent's Hospital in Sydney, Australia, find that DCD heart transplants account for 14 percent of all heart transplants at the center.

As of January 2018, the DCD program has seen a 72 percent retrieval rate, 71 percent transplant rate and a 100 percent survival rate at three months and one year. The data suggests DCD outcomes are excellent and a successful supplement to DBD donor hearts.

### **Midterm Follow-up of Heart Transplantation with Ex-vivo Normothermic Preservation Using Extended Criteria Donor Hearts**

During Oral Session 2, researchers shared the mid-term report which examined the utilization of hearts from high-risk donors and its impact on the number of heart transplants performed. Between February 2013 and October 2017 a total of 121 patients underwent heart transplant at the Royal Brompton and Harefield Hospital NHS Foundation Trust in Harefield, London, United Kingdom.

Clinicians employed the use of Ex-vivo normothermic preservation (EVNP), a method of organ preservation which reduces the cold ischemic time that can have benefits for high risk patients. Fifty-seven patients received organs from standard criteria and 64 from extended criteria donors with one of the following risk factors:

- Left ventricular ejection fraction
- Moderate left ventricular hypertrophy (LVH)
- Donor cardiac arrest
- Coronary artery disease
- Drug abuse
- Donation after circulatory death (DCD)

Using the Kaplan-Meier survival analysis, results showed survival was comparable between standard and extended criteria donor groups. Thirty-day survival was 86.7 percent, one-year survival at 78.3 percent, and four-year survival at 71.6 percent.

### **50<sup>th</sup> Anniversary Reflections**

Heart transplantation has evolved from a highly specialized, exclusive procedure to a routine treatment option for end-stage heart failure. Presenters during today's Symposium 15: "We Never Stop Learning" reflected on historical milestones that have helped to define heart transplantation during the last 50 years, including advancements in surgical techniques, immunosuppression, pathology interpretation, and patient selection and management.

### **About ISHLT**

The International Society for Heart and Lung Transplantation (ISHLT) is a not-for-profit, multidisciplinary, professional organization with more than 3,800 members from over 45 countries, representing over 15 different professional disciplines involved in the management and treatment of end-stage heart and lung disease. All ISHLT members share a common dedication to improving the care of patients with advanced heart or lung disease through transplantation, mechanical support and innovative therapies via research, education and advocacy. For more information, visit [www.ishlt.org](http://www.ishlt.org).

**# # #**