Arizona Hospital Performs State's First 'Lung-In-A-Box' Transplant

Lung transplant surgeons at St. Joseph's Hospital and Medical Center in Phoenix have performed Arizona's first "breathing" lung transplantation. Even in transport, these lungs are kept breathing and circulating with blood. This experimental sci-fi technology, nicknamed "Lung-in-a-Box," could revolutionize the field of lung transplantation.

St. Joseph's is one of only five sites in the nation offering this unique technology. The state's first "Lung-in-a-Box" transplant patient is 53-year-old Estelle Ellington from Hawaii who doctors say is expected to do well.

Michael Smith, MD, associate chief of thoracic surgery and surgical director of lung transplantation at St. Joseph's, says that in preserving the lungs as closely to how they would be normally in the body, the hope is to allow more lung transplant patients a greater chance at receiving lungs that function well right away. He also notes that in the future, this innovative technology could allow more lungs to be available for lung transplant recipients because they can be transported longer distances.

"Instead of packing the lungs on ice, we are able to keep them warm with blood circulating through them, and essentially breathing," explains Dr. Smith, who is leading the clinical trial at St. Joseph's. "With this technology, we're not only able to keep the lungs living while outside the body, but we're also able to monitor and potentially improve lung function prior to transplant."

The groundbreaking transplant involved an experimental organ-preservation device called the Organ Care System (OCS) by TransMedics, which keeps donor lungs "breathing" by perfusing them with oxygen and a special solution supplemented with packed red-blood cells during transport. The lungs actually expand and contract while inside the special "box."

The purpose of this trial, INSPIRE, is to compare donor lungs transported using the OCS technology with the standard icebox method. It is also underway at lung transplant centers in Europe, Australia and Canada and will enroll a total of 264 randomized patients.

St. Joseph's lung transplant program, which is just six-years-old, has performed nearly 200 transplants. Headed by Ross Bremner, MD, PhD, the hospital's lung program has included patients from around the nation, ages 16 to 71.

"We are extremely proud of this program," said Dr. Bremner, St. Joseph's chief thoracic surgeon. "It has grown extraordinarily quickly and has been recognized for excellence by a number of highly respected organizations. Obtaining this

technology is a great benefit to our patients who are waiting for that call saying they have new lungs."

In the United States, more than 116,000 men, women and children currently need life-saving organ transplants. More than 2,300 people in Arizona need a transplant.

Source URL (retrieved on *07/28/2014 - 2:59am*):
http://www.surgicalproductsmag.com/news/2013/06/arizona-hospital-performs-states-first-lung-box-transplant