LARIAT Procedure
The left atrial appendage is "lassoed" by a loop stitch advanced over an outer wire to the base of the atrial appendage and tightened, which permanently seals off the left atrial appendage, preventing blood clots from traveling to the brain.
First LARIAT Procedure Performed

Richard Kovach, MD, Deborah’s Chair, Interventional Cardiology and Director, Cardiac Catheterization Laboratory, and Jon George, MD, Assistant Director Cardiac Catheterization Laboratory successfully performed the hospital’s first successful LARIAT procedure.

Performed in patients with atrial fibrillation, this novel procedure offers hope to patients who cannot take blood thinners to reduce the risk of stroke from this irregular heart rhythm. Drs. Kovach and George initially thread two magnetic wires to the heart’s left atrial appendage. One magnetic wire is advanced to the tip of the appendage from the inside via a trans-septal heart catheterization. A second magnetic wire is manipulated to the outside tip of the appendage through a catheter inserted via a puncture through the skin just under the ribs. This wire is advanced into the space around the heart. When the wires get close to each other, their magnetic attraction joins them together. The appendage is then "lassoed" by a loop stitch advanced over the outer wire to the base of the atrial appendage and tightened (as seen on cover). This permanently seals off the left atrial appendage and blocks stroke-causing blood clots from traveling to the brain.

Fully Percutaneous Abdominal Aortic Stent Graft Repair

Deborah’s Interventional Team – Richard Kovach, MD, Jon George, MD, cardiology fellow Troy Trayer, DO, and vascular surgeon John Cooper, DO – recently performed a fully percutaneous abdominal aortic stent graft repair on a patient who had previously undergone two failed attempts of the repair at other prominent hospitals.

The procedure was performed with conscious sedation and local anesthesia alone, as well as only a small puncture in each groin and no incisions. These types of repairs, now routinely done at Deborah with these minimally-invasive techniques, hold great promise for many patients who may otherwise require a major open surgery for repair of failed aneurysmal disease stents.

New FDA Device for Clearing Blockages

Jon George, MD, Assistant Director, Cardiac Catheterization Laboratory and Richard Kovach, MD, Chair, Interventional Cardiology and Director of the Cardiac Catheterization Laboratory are now the first physicians in this area to have performed orbital atherectomy to clear calcified blockages in the coronary arteries.

The Diamondback 360°Coronary Orbital Atherectomy System is a newly-approved FDA device for severely calcified coronary lesions, which uses a patented combination of differential sanding and centrifugal force to remove arterial calcium that can otherwise complicate angioplasty and stenting for Coronary Artery Disease. Deborah is the first New Jersey hospital -- and first in the Philadelphia region -- to debut this device. Deborah has been performing orbital atherectomy for several years in peripheral arteries, but this is the first time blockages in the heart have been treated using the same technology.

For more details, contact our Interventional Cardiology team: 609-735-2907

Photo courtesy of Cardiovascular Systems, Inc
Deborah Heart and Lung Center recently launched a new Multi-Disciplinary Oncology Clinic Program, under the direction of Andrew Martin, MD, Chair, Pulmonary Medicine at Deborah.

As part of a collaborative relationship with the Rutgers Cancer Institute of New Jersey, the Clinic offers multi-disciplinary, dedicated out-patient clinic times for individualized case management of patients with pulmonary tumors. An integrated team composed of oncologist Biren Saraiya, MD, Rutgers Cancer Institute of New Jersey; Deborah radiologist Thomas C. Gallagher, DO; pulmonologist Navdeep Brar, MD; surgeon Arthur Ng, MD; pathologist Betsy Schloo, MD; and other ancillary staff, work in tandem to provide the most efficient approach to the evaluation of possible lung tumors, and the most effective treatment plan possible.

“This integrated strategy offers an opportunity to get the whole patient profile, allowing an efficient approach to the evaluation of possible lung tumors. Many tumors are not cancerous, but for those that are, we want to have as much information, as early as possible, so a treatment plan can be created,” said Dr. Martin.

Non-cancerous tumors are closely monitored with careful follow-up. If surgical intervention is required for cancerous tumors, Deborah’s skilled surgical staff can move quickly as needed. Radiation and chemotherapy are arranged at facilities near a patient’s home, for travel ease and patient convenience.

For more details, contact Andrew Martin, MD, Chair, Pulmonary Medicine: 609-735-2919

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Deborah Heart and Lung Center has recently brought on campus a new pulmonary diagnostic tool called Endobronchial Ultrasound (EBUS). The EBUS is a cutting-edge diagnostic tool which combines ultrasound with a bronchoscope and allows real-time images in and around the lungs. This sophisticated tool can be used for diagnosing and staging lung cancer, detecting infections, and identifying inflammatory diseases that affect the lungs, such as sarcoidosis or other cancers such as lymphoma.

EBUS employs transbronchial needle aspiration (TBNA) for obtaining tissue or fluid samples from the lungs and surrounding lymph nodes, which supplements the conventional diagnostic procedure, mediastinoscopy, used for collecting tissue or fluid via biopsy. The EBUS allows for needle aspiration of lymph nodes using a bronchoscope through which a special endoscope fitted with an ultrasound processor and fine-gauge aspiration needle is guided into the patient’s trachea, offering real-time imaging and the ability to reach difficult access areas, as well as offering rapid pathologic evaluation of samples as they are obtained.

Navdeep Brar, MD, Attending Pulmonologist and Arthur Ng, MD, Attending, Cardiothoracic Surgery have actively integrated this new powerful tool into Deborah’s diagnostic armamentarium.

For more details, contact Navdeep Brar, MD, Attending Pulmonologist: 609-735-2919

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66 year old male with tumor encasing right pulmonary artery, biopsied with EBUS guidance.
Deborah is proud to be the first hospital in South Jersey to implement the Breathe Non-Invasive Open Ventilation (NIOV™) System in its Pulmonary Rehabilitation Department.

The Breathe NIOV System is designed to ventilate patients with respiratory insufficiency for increased mobility and ambulation. The NIOV System is a wearable, small, one-pound, battery-powered volume augmentation ventilator delivering both ventilation and supplemental oxygen, which works with a patient’s spontaneous breathing via a small, non-invasive open nasal pillows interface. During Pulmonary Rehabilitation, Deborah’s therapists, under the direction of John Hill, RRT, Director Respiratory Services, guide the patient’s volume delivery settings and choose from three activity levels. Research has shown that COPD patients using the Breathe NIOV System experience significant improved performance in the standard six-minute walk test (6MWT) with lower dyspnea scores and reduced work of breathing.

The Breathe NIOV System is of particular benefit for South Jersey lung transplant recipients who can now conduct their pre- and post-surgery rehabilitation closer to home at Deborah.

For more details, contact John Hill, Administrative Director, Pulmonary/Respiratory Medicine:
609-893-1200 ext. 4392

John Hill, BA, RRT-NPS