The UT Southwestern Division of Surgical Transplantation offers a truly comprehensive and unique program of solid organ transplants, including the heart, liver, kidney, and lung. The program combines a multidisciplinary team approach to patient care with groundbreaking research aimed at expanding the donor pool and developing new methods to preserve and evaluate organs. In addition to being nationally recognized, the program has also been certified by the Centers for Medicare & Medicaid Services (CMS), ensuring continued access for North Texas patients facing end-stage organ failure.
Dietitians provide nutritional support to patients on individualized drug regimens. The life of the organ is maximized through new means of preserving its function—management of immunosuppression, and long-term patient monitoring and care.

Transplant

Transplant teamwork

The multidisciplinary approach is a vital component of the Division of Surgical Transplantation’s ongoing success. “With all disciplines being under the same roof, we are able to cross-fertilize to optimize patient care,” said Juan Arenas, MD, Chief of the Division of Surgical Transplantation. “We’re up and running with a full team of physicians and surgeons fully integrated into one of the most sophisticated medical education and research centers in the country.”

UT Southwestern’s transplant programs offer world-class resources in the full range of related fields, from heart/lung, kidney, and liver disease specialists and surgeons to experts in infection control and immunity and rejection medicine. Because UT Southwestern is an academic medical institution, patients have access to clinical trials both on campus and nationwide.

The multidisciplinary approach has organizational benefits as well. The UT Southwestern transplantation team is staffed with specially trained nurses for care, social workers who focus on patients’ social and psychological well-being, and clinical coordinators who follow the patient from the initial evaluation through the life of the organ. Financial coordinators assist with the financial aspects of the transplant process, from evaluation through postoperative care.

Transplant pharmacists specialize in designing, implementing, and counseling patients on individualized drug regimens. Dietitians provide nutritional support.

Each patient’s unique team of experts is led by a dedicated coordinator who serves as a point person to help identify and resolve any issues and track all aspects of the experience.

The Division of Surgical Transplantation also focuses on organ donors, not just recipient patients. “In the North Texas region, the majority of organs donated for transplant come from families who donate their deceased loved one’s organs,” said Dr. Arenas. “Our main objectives are to educate the public on organ donation and utilize optimization of donated organs. We want to move past the idea that the number of donors is fixed, while the number of patients who need transplantation is constantly growing.”

According to the Organ Procurement and Transportation Network (OPTN), surgeons in the U.S. performed more than 26,000 solid organ transplants last year, while the waiting list grew to more than 110,000.

In light of such an imbalance, the transplantation team also is working to make sure every organ donated is optimized through new means of preserving and evaluating organs donated after cardiac death (DCD). Most deceased donor transplants result from brain-death cases, so obtaining organs from donors after cardiac death can increase the supply of needed organs.

“Developing techniques to minimize damage to DCD organs and to identify and avoid using organs that are not functional,” Dr. Arenas said.

Dr. Arenas credits advances in the preservation of donor organs’ functionality pioneered by Michael Jessen, MD, Chair of Cardiovascular and Thoracic Surgery, and Matthias Pfitz, MD, Assistant Professor of Cardiovascular and Thoracic Surgery, in potential expanding the pool of transplantable organs.

Additionally, research by Christopher Lu, MD, Professor of Internal Medicine and Director of Renal Transplantation, aims to identify markers that predict successful organ grafts, preventing transplantion of damaged organs and, at the same time, expanding the pool of organs from marginal donors.

Liver transplant program expands access, options for patients

Achieving certification from the Centers for Medicare & Medicaid Services (CMS) in 2010 marked a major milestone for the UT Southwestern University Hospitals’ liver transplant program.

Because CMS oversees Medicare and Medicaid programs and decides whether to cover a program’s services, certification is a crucial step to ensure access for patients in need. In addition, many other insurers base their coverage on the CMS certification.

The certification, Dr. Arenas said, further validates the UT Surgical Transplantation Division’s differentiated approach to providing options to end-stage organ failure patients. UT Southwestern, physicians treat liver disease in conjunction with ongoing research programs, allowing them to offer patients the most advanced diagnostic evaluations and treatment available.

“We meet weekly to discuss patients with liver cancer at a multidisciplinary level,” Dr. Arenas said. “From these meetings we establish protocols that enable us to give patients every option—medical, surgical, and transplant—for the treatment of their liver cancer.”

Quick facts: Transplant

- **Medicare-Approved**
  UT Southwestern is a Medicare-approved transplant center for heart, lung, liver, and kidney transplantation.
- **Extensive Research**
  UT Southwestern conducts ongoing clinical and laboratory research projects representing multiple areas of transplantation research.
- **Outpatient Management**
  UT Southwestern maintains comprehensive outpatient management of transplant recipients that includes infection prophylaxis, management of immunosuppression, and long-term patient monitoring and care.
- **Blue Distinction**
  UT Southwestern received Blue Distinctions for heart and lung transplant. Blue Distinction is a designation awarded by the Blue Cross and Blue Shield companies.
Increased access to one of the best heart transplant programs in the country

UT Southwestern Medical Center’s heart transplant outcomes are among the best in the country, and the program—which was established more than 20 years ago—boasts numerous physicians now certified in the new American Board of Internal Medicine subspecialty of Advanced Heart Failure and Transplant Cardiology.

“The heart transplant program at UT Southwestern is active and growing,” said Mark Drazner, MD, Professor of Internal Medicine and Medical Director of the Heart Failure, Left Ventricular Assist Devices (LVADs) and Cardiac Transplant Program. “It’s among the best in the country, and it’s a resource for the community.”

Dr. Drazner and his team have been proactively reaching out to area physicians to ensure that UT Southwestern’s services are known. Internally, leaders have hired more staff and physicians and streamlined referral procedures.

“We’ve made a large effort to make the process easier for cardiologists to refer patients who have advanced heart failure to UT Southwestern,” Dr. Drazner said. “We provide excellent care for the patients and are also committed to providing excellent service for their physicians.”

Growth in the LVAD program has allowed UT Southwestern to help patients who may not have qualified for transplant in the past by giving them more time to meet the requirements needed for transplantation.

“The LVAD program can allow the obese patient to lose weight or buy time for the sick patient to get well enough for transplant,” Dr. Drazner said.

“The program achieves much of its excellence through multidisciplinary efforts involving cardiologists, surgeons, nurses, therapists, and a wide range of hospital personnel across a broad array of specialties,” said Michael Jassencek, MD, Chair of Cardiovascular and Thoracic Surgery. “This team approach sets the program apart from many others and is a critical factor behind the superior outcomes that the heart transplant and LVAD programs have enjoyed.”

Four UT Southwestern physicians have already received certification in Advanced Heart Failure and Transplant Cardiology.

Mark Drazner, MD
Professor of Internal Medicine, Medical Director of the Heart Failure, Left Ventricular Assist Devices (LVADs) and Cardiac Transplant Program

Orthopaedic Surgery

Reverse shoulder arthroplasty can relieve pain and restore function

Patients with bone-on-bone osteoarthrosis and intact rotator cuff tendons are generally good candidates for conventional total shoulder replacement, and about 23,000 people undergo the procedure every year. But select patients with irreparable rotator cuff tears and a form of glenohumeral arthritis resulting from rotator cuff dysfunction, known as cuff-tear arthropathy, may benefit from reverse shoulder arthroplasty, a relatively new procedure initially approved by the Food and Drug Administration in 2004.

Reverse shoulder replacement does exactly what it says: It puts a socket on the ball side of the joint and a ball on the socket side. In doing so, its state-of-the-art engineering allows a patient to lift his or her arm using the deltoid muscle despite a deficiency in the rotator cuff. Recent journal articles have suggested that shoulder arthroplasty is being under-utilized for arthritis because physicians may not be aware that it is an option.

“Improving awareness regarding the utility of conventional and reverse shoulder replacement is critical as the baby-boomer population continues to age. Each can play an important role by relieving pain and restoring function in patients who still suffer disability despite conservative management,” said William Robertson, MD, Assistant Professor of Orthopaedic Surgery in the Sports Medicine & Shoulder Service at UT Southwestern Medical Center.

“Reverse shoulder arthroplasty is not for everyone,” said Dr. Robertson. “Other treatments such as arthroscopic debridement, biceps tendon release, and other rotator cuff deficient implants should be considered, and the treatment should be tailored to the individual needs of the patient.”

Several studies now demonstrate the effectiveness of reverse shoulder arthroplasty, with improved range of motion and pain relief even for patients with limited preoperative function. Long-term, follow-up studies demonstrate improved ability to raise the arm to the side from 40 degrees to an average of 117 degrees. However, complications including dislocation, stress fractures, brachial plexopathy, and scapular notching can occur, so selecting an experienced surgical team is essential. Whereas dedicated shoulder specialists at UT Southwestern perform dozens of such surgeries annually, research has indicated that as many as 75 percent of shoulder replacement surgeries nationally are done by surgeons who perform only one or two procedures a year.

UT Southwestern physicians treat all shoulder disorders, including acromioclavicular joint injuries, arthritis, bursitis, capsular and labral injuries, dislocations or instability, fractures of the shoulder or clavicle, frozen shoulder, rotator cuff tears and injuries, SLAP tears, and tendinitis.

William Robertson, MD
Assistant Professor of Orthopaedic Surgery in the Sports Medicine & Shoulder Service at UT Southwestern Medical Center

To speak with a patient referral specialist about available medical services at UT Southwestern, call 214-645-8300.
Transoral robotic surgery and nanoparticles advance treatment of head and neck cancer

Last summer, Baran Sumer, MD, FACS, Assistant Professor of Otolaryngology and Head and Neck Surgery, performed the region’s first transoral robotic surgery (TORS) at UT Southwestern Medical Center. Since then, TORS has been used to successfully treat more than a dozen patients with head and neck cancer at UT Southwestern, giving patients the increased benefits of a minimally invasive, scarless procedure.

TORS is the latest application of the cutting-edge technology, as the usage of robotic surgery keeps expanding to new surgical specialties at UT Southwestern. Specifically, TORS has been applied to remove tumors from the oral cavity and throat, as well as to treat patients with sleep apnea.

“Compared to open surgery, TORS offers quicker recovery times, less blood loss, and fewer days in the hospital,” said Dr. Sumer, who completed a fellowship in transoral surgery for head and neck cancer at Wash-ington University in St. Louis, in addition to receiving special training for the Medical Center’s da Vinci robotic system and TORS.

The da Vinci robotic system is one of four advanced da Vinci systems currently used by UT Southwestern physicians. Tools attached to the da Vinci robot remove tumors through the mouth, without any external incisions. Removing tumors robotically involves use of a high-definition, 3-D camera attached to an endoscope for precise, magnified visualization, and small robotic instruments attached to the robotic arms. The surgeon controls the robotic camera and arms from a nearby console; the robotic arms and instruments precisely match the motions of the surgeon’s hands, while an assistant remains at the patient’s side to help the surgeon. A second console is available for two surgeons to work as a team.

“We have had excellent results since we adopted the da Vinci system for these types of operations,” said Dr. Sumer. “You can get fantastic visualization because of the ultra-bright illumination and magnification from the camera. The 3-D, high-definition view allows for more precise excision of these cancers.”

For patients, TORS offers tremendous advantages: no scarring or disfigurement; less time in the operating room, under anesthesia, and in the hospital; quicker recovery time; and fewer complications, infections, and blood transfusions.

“It’s an excellent option to be able to offer patients with head and neck cancer,” said Dr. Sumer.

Looking ahead to future advances, Dr. Sumer is currently collaborating with Jinming Gao, PhD, Professor of Oncology and Pharmacology in the Harold C. Simmons Cancer Center, to conduct research on the use of nanoparticles to deliver imaging and therapeutic agents to tumors of the head and neck and to further improve intraoperative tumor visualization and therapy. Dr. Gao’s lab pioneered the development of pH-activated nanoparticles that stay dark and invisible in blood but can be turned on in targeted tumor cells to improve tumor detection. These fluorescent nanoparticles have improved tumor detection in mice.

“We’re trying to develop nanoparticles that will improve the robotic surgery,” said Dr. Sumer.

This research, along with other clinical trials for patients with head and neck cancer, currently is taking place at the Simmons Cancer Center, which is the only cancer center in North Texas designated by the National Cancer Institute.

Head and neck cancers account for 3 percent to 5 percent of all cancer cases, affecting more than 650,000 people per year worldwide.

Infertility

New chief outlines vision for Division of Reproductive Endocrinology and Infertility

Oahan Bukulmez, MD, the new Chief of the Division of Reproductive Endocrinology and Infertility at UT Southwestern Medical Center, brings extensive clinical and research expertise, having directed the in vitro fertilization and egg donation programs at the University of Florida College of Medicine in Gainesville, Florida.

A native of Turkey, Dr. Bukulmez received fellowship training at both UT Southwestern and Yale University School of Medicine, where his research interests included endometriosis and genomic regulation in reproductive tissues.

“Our vision is to provide state-of-the-art infertility diagnosis and treatment while developing cutting-edge technologies for future reproductive medicine,” said Dr. Bukulmez. “We are devoted to training physicians and will continue to lead in advocating reproductive health in our community.”

UT Southwestern specialists combine the latest research with technological advances to develop a highly individualized treatment protocol for each patient, which may include intrauterine insemination, innovative ovarian stimulation regimens, and in vitro fertilization.

“We understand the feelings of uncertainty, frustration, and hopelessness associated with not being able to conceive,” said Dr. Bukulmez. “We know that time is of the essence, and we focus on providing top-notch and cost-effective services.”

The fertility team at UT Southwestern promotes close interaction and strong collaboration with physicians in the community and also makes referrals for high-risk pregnancies, when necessary, to its renowned Division of Maternal-Fetal Medicine.

UT Southwestern is the only academic institution in the region with an in vitro fertilization center, and its infertility specialists train many of the nation’s future reproductive endocrinologists.

UT Southwestern Fertility and Advanced Reproductive Medicine is located on the sixth floor of the new Outpatient Building, 1801 Inwood Road, with valet or self-parking available.

To speak with a patient referral specialist about available medical services at UT Southwestern, call 214-645-6500.

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U.S. News & World Report ranks UT Southwestern as No. 1 hospital in North Texas

This spring, UT Southwestern Medical Center ranked as the best hospital in Dallas-Fort Worth in the newly expanded U.S. News & World Report’s America’s Best Hospitals rankings for 52 metropolitan areas. In the 2010-11 U.S. News & World Report national report on health care providers, UT Southwestern was nationally ranked in six specialty-care areas: urology; diabetes/endocrinology; gynecology; kidney disorders; neurology and neurosurgery; and ear, nose, and throat. Using that same data, U.S. News reviewed all hospitals nationwide that met certain stringent standards for patient volume and other important benchmarks to determine the metro rankings.

“This report offers further validation to patients in North Texas and across the country of the exceptional patient care they receive at UT Southwestern,” said Daniel K. Podolsky, MD, President of UT Southwestern.

Bruce A. Meyer, MD, Executive Vice President for Health System Affairs at UT Southwestern, said, “These rankings confirm a growing recognition nationally for excellence in clinical care at UT Southwestern.”
Motility Disorders

Integrated program provides access to motility specialists for patients and referring physicians

UT Southwestern Medical Center’s Motility and Dysphagia Clinic provides a multidisciplinary, integrated approach to diagnosis and treatment of swallowing disorders. Patients are seen jointly by a gastroenterologist with subspecialty training in motility disorders, an otolaryngologist, and a speech-language pathologist. Diagnostic tests are performed the same day when possible, allowing integrated care in a centralized location and reducing repeat visits.

The physician team provides comprehensive examinations of the larynx, pharynx, and esophagus. The Motility and Dysphagia Clinic offers flexible laryngoscopy, functional endoscopic evaluation of swallowing, modified barium swallow (videofluoroscopic swallow study), esophagostroduodenoscopy (upper endoscopy), 24-hour pH monitoring, impedance testing, and high-resolution esophageal manometry.

“Impaired saliva production, tongue movement, nerve or muscle damage, or anatomical abnormalities can alter the ability to swallow solid foods or liquids that require specialized care and diagnosis,” said Co-Director Xinqing (Frank) Fan, MD, Assistant Professor of Internal Medicine in the Digestive and Liver Diseases Division.

“Depending on the patient’s specific condition, our specialists may prescribe medications, offer surgical intervention, or recommend therapy, including Vital-Stim, therapeutic exercises, modification of eating or swallowing behaviors, or changes to diet to decrease the risk of aspiration pneumonia,” said Dr. Fan.

UT Southwestern’s electronic medical records system helps ensure that referring physicians are kept up-to-date with their patients’ test results and progress, which enhances collaboration with motility program physicians.

Xinqing (Frank) Fan, MD
Assistant Professor of Internal Medicine in the Digestive and Liver Diseases Division

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