ENABLING PATIENTS WITH PANCREATITIS TO LIVE LIFE TO THE FULLEST
Two decades ago the outlook for patients with pancreatitis was grim. But within the last decade and a half, major advances have been made — and for these patients, the future looks significantly brighter.

Key Team Members

Dr. Matthews is a gastrointestinal surgeon and leading authority on the surgical treatment of diseases of the pancreas, bile ducts and liver. He is highly skilled in the treatment of acute and chronic pancreatitis, and is one of a handful of surgeons in the nation who has expertise in islet autotransplantation. His clinical research focuses on the surgical treatment of pancreatitis and a range of complex gastrointestinal disorders. He also has vast experience in bile duct reconstruction and complex reoperative gastrointestinal surgery. Dr. Matthews is chairman of the University of Chicago Department of Surgery.

Dr. Waxman is a gastroenterologist and a leading authority on endoscopic ultrasound (EUS). His work focuses on state-of-the-art minimally invasive endoscopic procedures of the pancreas and biliary tree.

Dr. Garfinkel is an expert in transplant surgery with a special focus on islet transplantation. His research interests include islet physiology, methods for improving isolation of islets and immuno-isolation of islets.
Breakthroughs in the Treatment of Pancreatitis: Autotransplantation of Islet Cells

Pancreatitis — hereditary, recurring acute and chronic — has been a long-standing challenge to physicians. Even with advances in recent years, there is still no broad consensus on ideal treatment. However, for patients whose previous surgical treatment, medical management and more conservative surgical interventions did not produce desirable outcomes, advances have led to general agreement that near-total or total pancreatectomy with immediate autotransplantation of islet cells is a desirable therapeutic option. Patients with small duct pancreatitis may also be excellent candidates for this procedure.

This scenario represents a giant step forward from the time when near-total or total pancreatectomy was avoided because of concerns about the increased morbidity and brittle diabetes associated with the procedure. Thanks to advances in procedural techniques, however, incidence of morbidity and mortality have been greatly minimized. Autotransplantation of islet cells either prevents the onset of diabetes altogether or minimizes the severity of the diabetes that results. Approximately 40 percent of patients do not require insulin at all. In the 60 percent who do require insulin, the diabetes is much more easily managed. The vast majority of all patients enjoy significant and almost immediate relief of abdominal pain and no longer require narcotics.
Inpatients with advanced disease, diagnosis is relatively simple, based on clinical history, supporting laboratory investigations and imaging studies. However, in certain instances, particularly with patients with early or mild small-duct or minimal change variants, establishing the diagnosis can be surprisingly difficult. Particularly challenging are patients who report pancreatic-type pain but who have normal biochemical and imaging studies.

**Innovative Procedures for Pancreatic Surgery**

University of Chicago Medical Center experts specialize in duodenum-sparing pancreas procedures that are not available in most U.S. institutions — procedures that have greatly reduced morbidity and mortality. These include Beger, Frey and Bern modifications, and spleen-preserving distal pancreatectomy and minimally invasive laparoscopic pancreatic surgeries.

**Diagnosis of Pancreatitis: Not Always Straightforward**

In patients with advanced disease, diagnosis is relatively simple, based on clinical history, supporting laboratory investigations and imaging studies. However, in certain instances, particularly with patients with early or mild small-duct or minimal change variants, establishing the diagnosis can be surprisingly difficult. Particularly challenging are patients who report pancreatic-type pain but who have normal biochemical and imaging studies. Accurate diagnosis in these cases is extremely important for the patient as repeated instrumentation and manipulation of the pancreas and pancreatic duct system leads to changes in the gland that can, over time, make the diagnosis of chronic pancreatitis self-fulfilling. In these cases, other disorders ranging from Crohn’s disease, to delayed gastric emptying, to functional bowel disorders, to thoracic radiculopathy should be considered. At the University of Chicago Medical Center (UCMC), patients in this situation have the advantage of multiple specialists with expertise in these disorders being consulted on their behalf.
Over the last 15 years, significant advances in noninvasive imaging techniques — all of which are available at UCMC — have provided additional methods for assessing patients with chronic pancreatitis. While plain radiographs of the abdomen may demonstrate pancreatic calcification, abdominal computed tomography (CT) and magnetic resonance imaging (MRI)/magnetic resonance cholangiopancreatography (MRCP) are significantly more effective. They are used at UCMC, prior to any invasive testing, to evaluate the pancreatic parenchyma and duct anatomy.

The 64-slice CT scanner at UCMC is a particularly valuable tool, with four times as many detectors as a typical multi-detector CT scanner. It combines unrivaled image quality with remarkable speed, producing detailed pictures of any organ in a few seconds and providing sharp, clear three-dimensional images, including 3-D views of the blood vessels, in an instant.

Endoscopic ultrasound (EUS) is increasingly utilized in the evaluation of patients with early or mild pancreatitis. In expert hands and depending on the criteria that are present, EUS can reliably achieve a diagnosis of chronic pancreatitis.
Our Lab Exceeds Required Standards

Under the direction of transplant surgeon Marc R. Garfinkel, MD, an islet laboratory has been developed on the UCMC campus where isolation of both autologous islets and allogeneic (from deceased human organ donors) islets occurs. Because the FDA very tightly regulates the allogeneic islet transplantation manufacturing environment and process, the lab is cGMP (current good manufacturing practice), adhering to the highest standards of documentation, recordkeeping, environmental handling (air passing minimum particles in the air), cleanliness, sterility and product release testing.

The team of scientists and technologists working in this laboratory have isolated islets from over 130 human pancreata, resulting in lives free of diabetes and independent of insulin for multiple recipients of both autologous (self) and allogeneic islets.
Physicians here dealing with patients who have pancreatitis understand the importance of providing psycho-social support and making experts in pain management available. These dedicated specialists work closely with anesthesiologists, staff nurses, nurse specialists, case managers, radiologists, social workers, nutritionists, specialists in pain management and psychologists to assure an environment conducive to helping these patients.

The Team Values Referring Physicians

Specialists at the University of Chicago Medical Center value their relationships with referring physicians. They make themselves available for consults and do everything possible to make the referral process move smoothly. Active partners, they keep you fully updated on your patients and work diligently to return them to your care as soon as possible.

Contact Us

For an appointment, please call 1-888-UCH-0200.

To refer a patient or for consultation, please call 1-800-UCH-2282. For more information, visit our Web site at www.uchospitals.edu/specialties/pancreas/pancreatitis/.