High Volume, Top Quality, and Rigorous Research: Jefferson Sets New Standards in Pancreatic Cancer Care

Each year, Jefferson surgeons perform over 200 pancreatic resections, including more than 130 “Whipple procedures” — making the hospital #1 in surgical volume for pancreatic cancer and related diseases in the tristate region of Pennsylvania, New Jersey and Delaware.

“We are very proud of what we have achieved, there are always opportunities for improvement,” says Charles J. Yeo, MD, FACS, Samuel D. Gross Professor and Chair of Surgery, who has personally performed more than 1,400 Whipple procedures and treated thousands of patients with pancreatic cancer and related diseases.

Beyond the impressive numbers, the Jefferson Pancreas, Biliary and Related Cancer Center offers much more: multidisciplinary diagnosis and treatment, groundbreaking clinical research, and active involvement in community events — such as Amy’s Ride/Run/Walk in Quakertown (May 20) and Pancreatic Cancer Action Network’s PurpleStride (November 4).

New Multidisciplinary Pancreatic Cancer Clinic

When pancreatic cancer is suspected, many patients and their families feel overwhelmed. In addition to the emotional impact, patients may have to schedule several appointments to see primary doctors and gastroenterologists, as well as surgeons, medical oncologists and radiation oncologists. At our Multidisciplinary Pancreatic Cancer Clinic, all relevant clinicians gather each Monday afternoon to review cases and see patients — providing the convenience of multiple appointments during a single visit.

Development of a National Cancer Institute Funded Research Program

Since his recruitment in 2006, Jonathan Brody, PhD, Vice Chair for Research in the Department of Surgery, has been building a world-class pancreatic cancer research program. Dr. Brody specializes in studying the molecular basis of cancer development and progression, targeted therapy and personalized medicine. As a translational researcher, he steers the research trajectory of the Brody Laboratory while serving as an advisor/collaborator to all levels of trainees as well as our practicing surgeons, including Drs. Harish Lavu and Jordan Winter.

Ongoing Clinical Trials

Harish Lavu, MD, FACS, is leading the Whipple Accelerated Recovery Pathway (WARP) trial aimed at supporting faster recovery from pancreatic surgery. In 2007, the team conducted a similar study that established the seven-day “Critical Pathway” standard at Jefferson. The WARP trial — initiated in late 2015 and with nearly 70 patients enrolled to date — is testing a five-day pathway.

The protocol incorporates in-hospital physical therapy, specific dietary recommendations and rigorous monitoring following discharge. Meanwhile, Jordan M. Winter, MD, FACS, is tackling a perennial patient query: “Can pancreatic surgery make the cancer ‘spread’?” To explore this topic, Dr. Winter is leading the Water or Saline at High Volumes (WASH) trial that is testing the use of 10 liters of plain water or salt water for abdominal washing immediately following removal of the tumor. Current practice uses just one or two liters of saline at the conclusion of the procedure. The study, started in April 2016 with more than 100 patients enrolled to date, aims to expand to other sites and enroll 800 patients.

For more information, go to Jefferson.edu/Pancreas.

Our multidisciplinary pancreatic cancer team includes surgeons, GI specialists, medical oncologists, radiation oncologists, advanced practice nurses, research scientists, residents, postdoc fellows, graduate students, clinical research coordinators and nutritionists.

“In Asia, average hospital stay for pancreatic surgery patients is 21 days. In Europe, it’s 14 days. In most U.S. hospitals, it’s 12 to 14 days. Here at Jefferson, our current seven-day stay requires tremendous coordination across the Surgery, ICU and Nursing teams. With the WARP trial, we are trying to do something few others have consistently been able to do: improve outcomes by safely discharging Whipple procedure patients after just 5 days.”

Harish Lavu, MD, FACS
Associate Professor and Chief, Section of Hepatopancreatobiliary Surgery

“Lymphatics, nerves, small blood vessels and tumor margins frequently have cancer in them, which can only be appreciated at the microscopic level. As we’re dividing these structures, can some of these cells be spilled? It isn’t inconceivable. The hypothesis of the WASH study is that this high-volume washing may remove those kinds of free-floating cancer cells present after the tumor is resected—ultimately helping to prolong survival.”

Jordan Winter, MD, FACS
Associate Professor

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Why are shorter hospital stays better? Research has shown that being in a hospital when you aren’t critically ill actually delays healing and exposes patients to hospital-acquired infections. We want to prepare our patients to leave the hospital as quickly as possible so they can recover safely and more rapidly in the comfort of their own homes.”

Harish Lavu, MD, FACS
Associate Professor and Chief, Section of Hepatopancreatobiliary Surgery

“Very few surgical cancer studies have looked specifically at pancreatic cancer outcomes. This trial points to the potential for surgical oncologists to affect cancer outcomes with an inexpensive intervention: high-volume abdominal washing. If we can use it to improve survival even by a few months, we’re accomplishing the same thing as a billion-dollar drug.”

Jordan Winter, MD, FACS
Associate Professor
The Spring of 2017...Change and Hope

There is excitement in the air at Jefferson this spring. We had a superb "Match" on March 17, and we will be welcoming 64 terrific categorical general surgery residents come July. The Philadelphia Phillies just completed spring training well above .500, and there are high hopes for an improved year. In late April, the American Surgical Association—co-founded by our very own Dr. Samuel D. Gross (Chair of Surgery, 1856-1882)—hosted their 137th Annual Meeting here in Philadelphia. As part of the social program, attendees toured Lubert Plaza in the heart of our Center City campus, which includes the magnificent Samuel Gross Monument by Alexander Calder.

Jefferson Health continues to sustain momentum towards further expansion, with the planned addition of Kennedy Health in New Jersey and Philadelphia University to our Jefferson family soon. Some work is already underway with Philadelphia University (see the Enterprise Integration column), taking advantage of their expertise in creative design, innovation, and space planning. Add to this the work being done at our Center City, Abington and Aria campuses by our 7 surgical 2.0 Integration teams focusing on patient-centered, highest quality care...much is happening.

April 1 marked the launch of our Wave 2 EPIC implementation (inpatient EPIC) at our Jefferson Hospitals in Center City and on our Methodist campus. The power of this electronic health record (EHR) is quite amazing. Patients are being encouraged to sign up online for the "MyChart" patient portal, we are linked to other organizations via the Care Everywhere platform, and we now have one unified EHR for our outpatient and inpatient environments. As you might imagine, the surgical residents have embraced this new technology with great enthusiasm, while at least some of us (attending surgeons) are finding it very exciting. The Care Everywhere platform, and we now have one unified EHR for our outpatient and inpatient environments. As you might imagine, the surgical residents have embraced this new technology with great enthusiasm, while at least some of us (attending surgeons) are finding it very exciting.

The combination Agreement was signed by both institutions’ Boards of Trustees in September 2016. Although the merger isn’t expected to be completed until later this year, the Department of Surgery isn’t waiting to initiate collaborations with Philadelphia University. With Gerald Isenberg, MD, FACS, Professor and Director of the Surgical, Pre- and Graduate Education Program and Colorctal Residency Program, serving as the Department’s liaison, the team is already identifying innovative ways to blend resources and expertise.

Dr. Isenberg recalls the first “road trip” that department clinicians and researchers took last December to the Philadelphia University campus in the East Falls section of the city. "The facilities were amazing, and there was a palpable excitement as we toured the campus. Philadelphia University works with huge companies around the world. They have the ability to make virtually anything right there on the campus.”

He sees tremendous potential to apply those capabilities to further refine the field of surgery — from process workflows to physical instruments used to operate. In fact, one of the ideas under consideration is a one-year Fellowship in which a Department of Surgery resident would spend his or her research year studying surgical process and design problems at Philadelphia University. “This would be an opportunity to infuse fresh perspective to steps that we take for granted,” Dr. Isenberg explains. "We want to be challenged — to strip away ‘that’s how we’ve always done it’ thinking.”

Building on work already underway at Jefferson, Scott Cowan, MD, FACS, Associate Professor and Vice Chair for Quality, is working with Philadelphia University on rethinking patient rooms. The team is tapping into Philadelphia University’s expertise in architecture, design and building materials to analyze patient room design and workflow. Combined insights and recommendations could help on a number of fronts — from improving prevention of healthcare-acquired infections to reducing patient fall risk.

"We have an extraordinary opportunity to work together to improve the environment of care for our patients,” he says. "Philadelphia University’s expertise clearly complements what we’re doing here in the hospital in terms of achieving the highest quality of care.”

Dr. Isenberg notes that the merger will also benefit Philadelphia University students, with unprecedented access to the surgical world helping them learn how surgeons approach and solve problems.

"An integrated Philadelphia University and Thomas Jefferson University allows us to reimagine education in a way that launches students into the careers of their passion in a bigger, bolder way,” says Philadelphia University President Stephen Spinelli, Jr, PhD. "We will prepare students for careers of the 21st century, with an emphasis on scientific and applied research, design thinking and discovery.” For more information, go to wordpress.philau.edu/powered.
Clinical Studies Target Fewer Complications, Better Outcomes for Vascular Surgery

Two studies at the Jefferson Vascular Center (JVC) are assessing innovative methods to reduce risk of complications — and increase positive outcomes — for vascular surgery patients. Here, Paul DiMuzio, MD, FACS, William M. Measey Professor of Surgery and Co-Director, Jefferson Vascular Center, reviews what both studies mean for patient care.

‘Game-changer’ for groin wounds

As Dr. DiMuzio explains, groin incisions in vascular surgery are a source of significant morbidity and healthcare costs. When groin wounds become infected, patients may have to be readmitted and undergo additional surgery. Some patients are at greater risk because of diabetes and obesity, others because of the surgical technique required for their treatment.

In exploring ways to decrease groin wound infections in high-risk patients, the JVC identified a possible solution in Prevena™ — a sponge covered in adhesive that attaches to a small suction device. The suction device removes fluids from the region, helping reduce the risk of infection. Already FDA-approved, Prevena is used by cardiac surgeons for sternal incisions and by orthopedic surgeons in total joint replacements.

“No one had conducted a prospective randomized trial to determine if Prevena is a viable option for high-risk groin wounds,” he says. “We were the first.”

The results of Jefferson’s two-year study — which will be presented later this Spring at the 2017 Annual Meeting of the Society for Vascular Surgery in San Diego — showed a significant reduction in infections and re-admissions. Hospital costs declined by an average of $6,000 per patient.

We are now using [the Prevena] device for every patient with high-risk groin incisions, and we expect it to become a standard of care everywhere once the findings are published.

“We are now using this device for every patient with high-risk groin incisions, and we expect it to become a standard of care everywhere once the findings are published,” he adds. “It’s a game changer.”

In February, Megan Lundgren, MD, a third-year General Surgery resident and Sidney Kimmel Medical College alumna, presented the study at the Philadelphia Academy of Surgery’s Annual Surgical Research Competition. Dr. Lundgren, who helped enroll and care for trial participants, won the inaugural Chris Tzarnas Surgical Research Award for the work.

Follow-up trial of new treatment for carotid artery disease

Following the promising multi-center ROADSTER trial, the ROADSTER 2 trial is observing and evaluating real-world results of a newly approved procedure for treating carotid artery disease.

The most widely used treatment for carotid artery disease has been the carotid endarterectomy (CEA) procedure, in which plaque is surgically removed from the blocked artery. For patients who may be at high medical or anatomic risk for carotid endarterectomy, carotid stenting may be a better option. Though both procedures are generally safe, heart attack risk is higher with CEA, while stroke risk is higher with stenting. Trans-carotid Artery Revascularization (TCAR) is designed to lower both risks, and the initial ROADSTER trial demonstrated its success.

“The TCAR procedure is a hybrid of the other two treatments,” Dr. DiMuzio says. “It places a carotid stent through a minimally invasive incision in the carotid artery at the level of the neck. Blood flow in the artery is temporarily reversed to protect the brain from plaque fragments that may come loose during the procedure. A stent is then inserted into the blood vessel to support the artery walls and prevent blockage or collapse.” Dr. DiMuzio adds that stent deployment via access directly through the common carotid artery avoids the need to traverse the aortic arch with catheters, which can lead to embolic stroke.

Though approved by the FDA, the TCAR procedure will not be marketed until the ROADSTER 2 trial is completed. To date, Jefferson is the first and only study location in the Philadelphia area. Dr. DiMuzio and his team have already performed the TCAR procedure and are actively enrolling more patients.

“Nationally, the study is more than halfway to completion — and the TCAR procedure is on its way to becoming an exciting new standard of care for carotid artery disease,” he says.

For more information, contact the Jefferson Vascular Center at 215-955-8304 or visit Jefferson.edu/JVC.

The Jefferson Vascular Center surgeons, Drs. Paul DiMuzio, Dawn Salvatore and Babak Abai, rely on the support of advanced practice nurses Meghan McCullough, MSN, RN, FNP, AGACNP, and Cara Staley, MSN, RN-BC, AGACNP-BC to manage the Prevena and ROADSTER 2 clinical trials.
Patient-Benefactors Support New Kidney Transplant Center

December 14, 2017 was a landmark day at Jefferson: the ribbon cutting ceremony of the Nicoletti Kidney Transplant Center at Jefferson. This milestone venture – bringing together research, education and clinical care in one space – came to fruition thanks to a $2.5 million lead gift from the Robert V. Nicoletti Family Trust. The Center emphasizes living donor transplantation, something that is very personal to the Nicoletti family.

In early 2006, Jefferson doctors determined that the patriarch of the family, businessman and philanthropist Robert (Bob) V. Nicoletti, needed a kidney transplant. Seven members of his family immediately volunteered to donate a kidney. Ultimately, only one was deemed compatible: Bob’s youngest daughter, Lori Nicoletti Peruto, Esq. This life-saving kidney gave Bob – who passed away in February 2016 at 85 years old – another 10 loving years with his children and grandchildren.

Inspired by the care they received at Jefferson, the Nicoletti’s became steadfast and generous supporters of the Jefferson Transplant Institute. In late 2015, Bob and his three children, Mark R. Nicoletti, Sr., Lori Nicoletti Peruto, Esq., and Donna Nicoletti Ferrig, along with their spouses, provided the leadership gift to name the new Center. This kicked off a campaign supported by other grateful patients, Jefferson leadership and community partners to build a more robust living donor kidney transplant program.

Living donor transplants generally work better and last almost twice as long as deceased donor transplants.

Pennye Goodman was also inspired to give back after receiving a life-saving kidney in 2004 from her brother, Gregory Tettemer. “Through the generosity of my brother, the skills of the Jefferson team and the grace of God, I have been blessed with many years of excellent health. We are proud to support this new Center that will ease the burden of the transplant journey for patients and their families.” Living donor transplants generally work better and last almost twice as long as deceased donor transplants. With more than 600 patients on Jefferson’s organ transplant wait list, this campaign and the resources provided to patients and families in the Nicoletti Kidney Transplant Center come at a critical time. The Center not only simplifies the patient journey, but it also expands our dedicated multidisciplinary team and supports clinical research.

To learn about supporting the Nicoletti Kidney Transplant Center at Jefferson, visit Jefferson.edu/GiveJTI or contact Kelly Austin in the Office of Institutional Advancement at 215-955-6383.