JOHNS HOPKINS

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NEWS FROM THE JOHNS HOPKINS DEPARTMENT OF SURGERY



Johns Hopkins HPB Surgery Program: Today's Most Advanced Treatments and Approaches

Among the highest-volume programs in the United States, the Johns Hopkins Hepato-Pancreato-Biliary (HPB) Surgery Program continues its legacy of innovation in patient care and research.

The Johns Hopkins Hepato-Pancreato-Biliary Surgery Program performs the highest volume of robotic pancreatic surgeries in the United States, treating patients with advanced cancers via a multidisciplinary approach.

ith a team of internationally recognized pancreas and liver surgeons, minimally invasive surgical options, technological advancements and clinical trial offerings, the Johns Hopkins Hepato-Pancreato-Biliary (HPB) Surgery Program treats patients with malignancies and diseases of the pancreas, liver, gallbladder and bile duct.

Surgeons in the multidisciplinary program perform as many as 500 pancreatic resections a year. The team specializes in diagnosing and treating advanced pancreatic cancer and determining if those tumors can be resected.

"If you want to have a complex surgery, you need to go to a higher-volume center," says surgical oncologist **Jin He**, interim director of the HPB Surgery Program. "It's a team experience, so that means if a patient comes in as unresectable, we have a group of surgeons, medical and radiation oncologists, radiologists, pathologists and genetic counselors to evaluate [the case] from different angles."

As part of the highest-volume robotic pancreas surgery center in the country, surgeons use the latest technology to treat advanced cases. The group has performed over 300 robotic pancreas surgeries in the last five years, including nearly 150 Whipple procedures. In 2019, the team completed 90 robotic pancreatectomies, including Whipple procedures, distal pancreatectomies and total pancreatectomies.

Johns Hopkins also offers the robotic total pancreatectomy with islet autotransplantation for patients with chronic and hereditary pancreatitis. For 80% of patients, this procedure results in a significant reduction or resolution of pain.

"No other institution compares to Johns Hopkins in pancreatic surgery, especially in robotic pancreatic surgery," says He

The HPB surgery team works in tandem with Johns Hopkins Kimmel Cancer Center physicians in the

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- JIN HE

Improvements in Care for Rectal Cancer

The Johns Hopkins Multidisciplinary Rectal Cancer Clinic provides comprehensive, patient-centered care, using minimally invasive techniques and novel protocols — such as applying radiation early in a shortened window of time — to optimize outcomes.

n a typical scenario, a patient with rectal cancer might see a medical oncologist at one office and then schedule an appointment with a surgeon at another location. The Johns Hopkins Multidisciplinary Rectal Cancer Clinic brings multiple specialists together each week to discuss new patients and form individualized treatment regimens.

"It's a one-stop shop," says **Bashar Safar**, chief of colorectal surgery. "The patient comes here, they get an opinion from everybody and they go home with a plan."

First, a nurse practitioner coordinates imaging scans and lab values for the patient. On the day of the clinic, the patient meets with the nurse practitioner, an oncology resident or a physician assistant. Then the team — including surgeons, radiation and medical oncologists, radiologists and pathologists — arrives to discuss the best treatment options. After the conference, the appropriate specialists meet with the patient before the patient leaves.

The group has implemented some novel protocols, Safar says. One is speeding up the delivery of radiation. The standard of care for rectal cancers

is to provide radiation every day over a five-week period. At Johns Hopkins, the team has provided some patients who have larger tumors with the same amount of radiation within five days.

"What this allows us to do is introduce chemotherapy almost immediately," Safar says.

Johns Hopkins colorectal surgeons offer wide-ranging care using minimally invasive surgery and novel treatments for patients with rectal cancer. Pictured: an illustration of a gastrointestinal polyp. "A lot of patients with rectal cancer fail because of distant metastases, such as to the liver or lung. We really believe that getting the chemo in them sooner rather than later is in their best interest. Classically, you give radiation at the beginning, do surgery and then give chemotherapy. We've changed that approach, and I think it's going to show a much better response and translate into better cure rates long term."

In some cases, this approach has seemingly eliminated tumors to the point where patients are monitored regularly but don't necessarily need surgery, says Safar.

Rectal surgeons at Johns Hopkins have extensive expertise in managing all stages of disease, Safar adds. They use the latest technologies and minimally invasive approaches with surgical robots when appropriate, and they embrace enhanced recovery after surgery (ERAS) protocols. "The whole program is very patient-centric," he says.

Joining the team recently is colorectal surgeon **Peter Najjar**, medical director of clinical operations for Johns Hopkins'

Armstrong Institute for Patient Safety and Quality. Najjar, who completed fellowships in colorectal surgery and patient safety and quality at Brigham and Women's Hospital in Boston, has expertise in promoting ERAS measures.

"Multidisciplinary clinics are the future of colorectal cancer care, because you cannot adequately care for these patients as a lone surgeon — you need a team of people to view the patient and their disease through multiple lenses," Najjar says.



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THORACIC SURGERY

Innovating Care for Patients with Thoracic Cancers

Johns Hopkins applies the latest advancements — including new robotic tools, new research and an improved interdisciplinary approach — in the diagnosis and treatment of lung and esophageal tumors.

ohns Hopkins has long been an innovator in caring for patients with lung and esophageal cancers, says interventional pulmonologist **Jeffrey Thiboutot** and thoracic surgeon **Richard Battafarano** — and the most

recent advances in technology, knowledge and interdisciplinary care inform Johns Hopkins' clinical

practice today.

"We have substantially changed how we diagnose and treat our patients," says Thiboutot, "even compared with just a few years ago."

Although gathering tissue to diagnose and stage cancers has been a mainstay of care for decades, he explains, new tools have improved options for how



Expanding Pediatric Surgical Care in Maryland and Pennsylvania

Johns Hopkins Children's Center surgeons are now available to treat patients at several community locations throughout southern Pennsylvania and across the state of Maryland, including the National Capital Region.

he bread and butter of pediatric surgery consists of routine procedures to treat ailments such as appendicitis, hernias, bowel blockages and other "lumps and bumps," says **David Hackam**, pediatric surgeon-in-chief and co-director of Johns Hopkins Children's Center. Recognizing that it is more important than ever for families to remain closer to home than to travel for such operations, Hackam built a network of relationships with six community hospitals spanning southern Pennsylvania; Anne Arundel County, Maryland; and the Maryland suburbs of Washington, D.C.

Now, surgeons from Johns Hopkins Children's Center see patients in clinics and operating rooms in Pennsylvania at WellSpan York Hospital, and in Maryland at Adventist HealthCare Shady Grove Medical Center, Greater Baltimore Medical Center in Towson, Howard County General Hospital in Columbia (a member hospital of Johns Hopkins Medicine), and Anne Arundel Medical Center in Annapolis. They are also credentialed to provide telephonic support to the neonatal intensive care

"We want to create an environment with as few barriers as possible to patients seeing all the specialists they need in one place."

ELIZABETH "BETSY" KING

unit at Frederick Health Hospital.

"Early on, we recognized that we needed a program that offered surgical care to children outside of the four walls of Johns Hopkins," Hackam says. "For the most part, pediatric surgical care is community-based work. There are patients who do not need inpatient care, so why don't we provide pediatric surgery in the community?"

More challenging cases that require subspecialty care or a potential intensive care unit stay after an operation are still performed at Johns Hopkins Children's Center, he notes. But some pre- and postoperative visits can be done in the community locations.

Families are very pleased when they learn about the service, he says. For people in south central Pennsylvania, for example, "As soon as we tell them, 'Don't worry — we've got a clinic in York,' you see the smiles on their faces," he says. "They often say, "Thank you so much for doing this."

Several pediatric surgeons on staff speak multiple languages, including Spanish, French, Hebrew, Korean and Arabic, Hackam notes, and are from

> diverse backgrounds. And the entire team prides itself on availability. Among the various locations, a surgeon is available to see a new patient within a day of requesting an appointment, or on the same day if emergency consultation is



Johns Hopkins pediatric surgery has expanded its reach to six community hospitals in the region.

"We also consider the family a partner in the care of their child, along with the pediatrician," Hackam adds. "That's really important, because these families have longstanding, trusting relationships with their pediatricians, and we want them to know we value that."

Two additional surgeons joined the division recently and participate in rotations: **Elizabeth** "Betsy" King, surgical director of pediatric transplant, and **Erica Hodgman**, a pediatric general surgeon with expertise in adolescent surgical care, intestinal diseases and burn care.

"One of the things that is really important for our pediatric patients is providing them with easy access to us as clinicians," King says. "We want to create an environment with as few barriers as possible to their seeing all the specialists they need in one place."



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to perform this critical task. These include a recently developed robot that significantly expands the limits of bronchoscopy.

While traditional bronchoscopy, during which interventional pulmonologists use a scope, is largely dependent on ergonomics and the scope's size, this new device features a much thinner tube that bends and twists in a 360-degree radius and is directed by remote control. With smart navigation that uses the patient's CT scan to locate lung nodules, it can reach places that were impossible to access before.

This robot can be combined with any tools that fit through its lumen, Thiboutot explains, making it possible to do relatively new forms of biopsy. He and his colleagues are studying its use for cryobiopsies, during which pieces of tissue are frozen before removal, improving the ability to

Johns Hopkins innovates care for patients with lung and esophageal tumors through robotic bronchoscopy, immunotherapy and interdisciplinary collaboration. harvest larger sections. "With the added stability and maneuverability," Thiboutot says, "the hope is that eventually we may be able to use it to perform treatments directly."

Battafarano adds that recent knowledge gained from research — including studies conducted at Johns Hopkins — is changing protocols for patients with lung and esophageal cancers. One example involves newer drugs that target genetic mutations — immunotherapies that harness a patient's immune system to fight tumors. These agents have traditionally been administered after surgery, but studies show that some patients have better outcomes when they receive the therapies preoperatively.

Preop systemic therapy can make surgery more technically difficult, says Battafarano. "These drugs essentially turn cancer into a scar, which complicates resections," he explains. "But with our extensive experience, we can now do these procedures just as safely in patients preoperatively as those treated

postoperatively."

Another innovation in care is how patients are seen, adds Thiboutot. In the past, patients needed to make separate appointments with each member of the care team. Now, during a weekly clinic, medical oncologists, radiation oncologists, surgical oncologists and interventional pulmonologists can see patients together. With the close proximity of their offices, they frequently collaborate to care for the same patients on other days of the week as well.

"It's a huge stress reliever for patients to know that we're in constant communication with each other and the burden no longer falls on them to drive their own care," Thiboutot says. "This is just another example of how we're always striving to improve how we care for our patients."



Johns Hopkins HPB Program: Today's Most Advanced Treatments and Approaches (continued from cover page)

Pancreatic Multidisciplinary Cancer Clinic, which offers patients with complex cases comprehensive examinations and imaging, and evaluation by a panel of experts from across disciplines, including surgery, medical and radiation oncology, pathology, radiology, nutrition, pain management and others. The group works to diagnose patients, educate them about their options and develop a personalized treatment plan, often in clinical trials.

Being a high-volume center with a robust research program gives patients access to investigative clinical trials not offered elsewhere, some of which involve immunotherapy.

"We have a number of new types of vaccines that target a patient's tumors, and we combine those with some of the immunotherapy agents that we believe can supercharge the vaccines," says medical oncologist **Elizabeth Jaffee**, deputy director of the Kimmel Cancer Center. "This is something that we're uniquely able to offer to our patients."



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Surgery

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