An Integrated Approach to Gastrointestinal Cancer Care

The Gastrointestinal Oncology Program at Temple University Hospital in Philadelphia combines an array of specialty services to precisely diagnose and effectively treat cancers of the gastrointestinal (GI) tract. GI cancers affect the esophagus, stomach, liver, biliary system, pancreas, bowels and anus.

Temple’s multidisciplinary GI cancer group includes board-certified gastroenterologists, surgeons, radiation oncologists, medical oncologists, radiologists, pathologists and oncology-certified nurses who work together to coordinate each patient’s care. The result is high-quality, compassionate care for every patient.

Consultations and many of the diagnostic, interventional, and surgical procedures for GI cancer patients are coordinated through the state-of-the-art Temple Digestive Disease Center. Most new patients are seen within one week of referral. From the first suspicion of cancer and throughout the course of treatment, patient service is a top priority.

Advanced Tools for Precise Detection and Diagnosis

Temple’s skilled GI cancer group uses sophisticated imaging technologies and minimally invasive procedures to properly diagnose and pinpoint the location of cancer.

Advanced diagnostic tools offered at Temple University Hospital include:

- Magnetic resonance imaging (MRI)
- Computed tomography (CT Scan)
- Positron emission tomography (PET)
- Endoscopic ultrasound
- Endoscopic ultrasound-guided fine needle aspiration

Treatments for Even the Most Complex GI Cancers

Temple University Hospital is recognized for helping patients with even the most difficult-to-treat GI cancers.

Treatment of GI cancer can involve surgery, radiation therapy and chemotherapy. The exact treatment a patient receives depends on several factors, including the type of cancer, its size and stage, its location and the patient’s overall health.

Temple’s GI cancer specialists were among the first in the Philadelphia region to treat GI cancer with laparoscopic and endoscopic techniques. Today, Temple remains a leader in diagnostic and therapeutic endoscopy.
Temple surgeons and interventionalists routinely perform technically challenging procedures that allow patients to avoid standard surgeries and achieve the best possible outcomes. The Temple GI cancer group also employs all of the latest chemotherapy agents and combination regimens, cancer-targeted biological agents, advanced imaging and biomarker tests, and novel forms of cancer radiotherapy and radiosurgery.

**Temple's GI Cancer program's capabilities include:**

- Endoscopic ultrasound (EUS) and EUS-guided fine needle aspiration (FNA) for diagnosis and staging of esophageal, gastric, pancreatic, mediastinal, abdominal, and rectal lesions (as needed in conjunction with standard CT, PET, or MRI)
- EUS with fine needle injection (FNI) for pain control via celiac plexus block
- Cholangioscopy for intra-biliary lesions; pancreatobiliary endoscopy; enhanced digital fluoroscopy
- Thoracoscopy; laparoscopy
- Video capsule endoscopy and double balloon and other modalities of device-assisted enteroscopy
- Stents for esophageal, pyloric, duodenal, biliary, and colorectal obstructions
- Laser ablation, cryoablation, microwave ablation, and radiofrequency ablation (RFA)
- Radioembolization and transarterial chemoembolization (TACE)
- Complex endoscopic mucosal resection (EMR)
- Intensity-modulated radiation therapy (IMRT); stereotactic radiosurgery (SRS); stereotactic body (ablative) radiation therapy; high dose-rate radioactive implants; volumetric arc therapy (VMAT); 3D conformal radiation therapy

**Esophageal Cancer**

Temple University Hospital is nationally recognized for its expertise in diagnosing and treating patients with esophageal cancer and related conditions such as Barrett’s esophagus, tailored to each patient's specific needs.

Diagnostic procedures may include barium esophagram, upper endoscopy (including high-definition endoscopy with narrowband imaging), CT, PET, MRI, endoscopic ultrasound, thoracoscopy, and laparoscopy. In most cases, patients with superficial esophageal cancers can avoid surgery with endoscopic procedures such as:

- Radiofrequency ablation (RFA) to remove Barrett’s metaplasia
- Cryoablation (super-cooled liquid nitrogen) to destroy cancerous or pre-cancerous tissue
- Endoscopic mucosal resection (EMR) to sample and remove deep tissue nodules and other focal abnormalities.

Temple is also experienced with advanced laparoscopic techniques—such as the transhiatal esophagectomy—-for certain patients with high-grade esophageal dysplasia or early cancer.

When patients present with more advanced esophageal cancers, Temple’s team of specialists will design an aggressive approach that might include a combination of surgery, radiation therapy, and/or chemotherapy.

Maintaining patient quality of life during such treatment is always of paramount concern. Options for palliation have increased in recent years and now include chemotherapy, radiation therapy, cryoablation, laser ablation, argon plasma coagulation, and endoscopic stenting.
Colorectal Cancer
The Temple colorectal cancer group brings together the multidisciplinary support needed to manage all aspects of care for high-risk patients with even the most complex or challenging cases. All patients receive a comprehensive pre-treatment workup, a customized plan for therapy, and a program for follow-up and support.

Led by specialists in medical oncology, gastroenterology, surgery, and radiation oncology, Temple’s goal is to eliminate cancerous cells at the primary tumor site and wherever they may have spread. The GI cancer team also works to address co-existing conditions, minimize treatment side effects, maximize survival and patient quality of life, and preserve normal function without the need for a permanent colostomy.

Treatment options and services at Temple include:
- Complex polpectomy
- State-of-the-art endoscopy center with full endoscopic ultrasound capability
- Expertise in biopsy with tumor grading and staging
- The latest chemotherapy drugs and targeted therapies
- Advanced protocols of chemotherapy/radiation combinations
- Board-certified colorectal surgeons with experience in sphincter-sparing techniques
- Laparoscopic procedures
- Colonic stents for obstructive colorectal tumors
- Management of patients with inflammatory bowel disease
- Alternative and palliative therapies
- Education, counseling, and support groups for patients and families

Pancreatic Cancer
Rapid and aggressive spread, resistance to standard chemotherapy and a tendency to recur make pancreatic cancer one of the most difficult-to-manage diseases.

Temple University Hospital’s multidisciplinary GI cancer group is highly experienced in treating patients at all stages of this complex disease. After extensive testing and tumor analysis, the patient’s personalized treatment plan is mapped out at a GI Tumor Board meeting with specialists from gastroenterology, surgery, pathology, radiology, radiation oncology, and medical oncology.

Temple’s skilled surgeons take an aggressive approach to pancreatic cancer, even for cases deemed borderline resectable. Surgery is often combined with chemotherapy or radiation for maximum effect. When surgery is not an option, Temple physicians use custom protocols with chemotherapy and radiation therapy plus supportive measures to slow tumor growth or spread.

Diagnostic and treatment options at Temple include:
- High-resolution CT scans, MRI, endoscopic ultrasound (EUS) with fine needle aspiration (FNA) to definitively identify and stage cancer
- EUS/FNA of pancreatic cysts even as small as 1 cm to gauge malignant potential
- The newest and most promising chemotherapy drug combinations
- Advanced radiation therapy technology, including: intensity-modulated radiation therapy (IMRT); stereotactic radiosurgery (SRS); stereotactic (ablative) radiation therapy; volumetric arc radiation therapy (VMAT); and 3D conformal radiation therapy
Surgeons experienced in performing the Whipple procedure (pancreatoduodenectomy), major vessel reconstruction, and distal pancreatectomy

- EUS with fine needle injection (FNI) for pain control via celiac plexus block
- Biliary bypass surgery and endoscopic stenting of the bile duct

Liver Cancer

Temple University Hospital’s GI cancer group is experienced in managing the entire spectrum of primary and metastatic liver cancers. They provide patients with access to all of the latest treatments – including nonsurgical alternatives involving freezing, heating, or chemical ablation. Therapeutic plans are designed collaboratively by hepatologists, surgeons, medical and radiation oncologists, interventional radiologists, hematologists, gastroenterologists, and pathologists.

Each patient’s care is overseen by the most appropriate specialist. For example, in cases involving metastatic liver cancer, patients typically see an oncology specialist. Patients with primary liver cancer are managed mainly by hepatologists who stage the cancer and help to determine the optimal timing and treatment.

Diagnostic and treatment options at Temple University Hospital include:
- Advanced surgical techniques for hepatic resection and management of hepatic metastases
- Specially trained interventional radiologists who offer minimally invasive, nonsurgical hepatobiliary interventions
- Percutaneous radiofrequency ablation, microwave ablation, or radioembolization with Yttrium-90 for patients who are not candidates for surgical resection or chemotherapy
- Long-term infusional chemotherapy treatments and regional perfusion chemotherapy
- Complex liver resections and liver transplantation

Support Services

From diagnosis to treatment to recovery, a patient’s fight against GI cancer can be challenging. The anxiety that can come with managing this disease often calls for support.

Temple University Hospital provides every patient with the resources he or she needs to meet the psychological, social and physical challenges related to GI cancer and its treatment.

Support services include:

- **Support groups** – patients are referred to the Cancer Support Community (215-879-7733)
- **Psychosocial support** – social workers and other experts can help with community resource referral, coping with illness, family and relationship concerns, employment issues, and financial or insurance needs
- **Nutritional counseling** – provided by registered dietitians who help patients understand and meet their nutritional need.
- **Social work** – specially trained social workers can help patients and family members cope with the non-medical effects of cancer

FOR MORE INFORMATION ABOUT TEMPLE’S GI CANCER PROGRAM, CALL 1-800-TempleMED (836-7536)