

Advanced Endoscopy Services

About the Gastroenterology and Hepatology Program

Medical College of Wisconsin physicians and staff in the Froedtert & The Medical College of Wisconsin Gastroenterology and Hepatology Program offer state-of-the-art clinical services. The expanded use of endoscopy has significantly enabled the management of a wide range of diseases involving various organ systems. Depending on the disease, endoscopic techniques can aid in reaching an accurate diagnosis, staging cancer, providing therapy to avoid surgery, and/or serving as a bridge to surgery to improve clinical outcomes.

The team of advanced endoscopists offers these services in a timely manner to help referring physicians manage difficult cases and provide patients with the best possible care. The team offers an integrative approach to managing digestive diseases. We work closely with the pancreaticobiliary and hepatic surgery service and other experts in interventional radiology, pathology, CT surgery, oncology and radiation therapy at Froedtert & The Medical College. A weekly multidisciplinary pancreaticobiliary conference facilitates discussion of cases to optimize patient management.

The team offers the following services:

Esophagus

Barrett's esophagus is a precancerous condition which results from chronic acid reflux that requires endoscopic surveillance. In cases of progression to high grade dysplasia or early cancer, various endoscopic therapies can be used to achieve the goal of safely treating Barrett's esophagus and avoiding the need for surgery. Treatment modalities include **endoscopic mucosal resection** (removal of abnormal tissue endoscopically), **radiofrequency ablation (BARRX HALO)** and **photodynamic therapy** (ablation of abnormal tissue using a photosensitizer and light).

Esophageal cancer can be treated with surgery or neoadjuvant chemotherapy followed by surgery, depending on the stage. Advanced endoscopists often employ **endoscopic ultrasound (EUS)** in the management of esophageal cancer, since it has been shown to be the most accurate way to determine the depth of tumor invasion (T stage) and can also provide the N stage by characterizing abnormal lymph nodes. For esophageal cancers resulting in obstruction, **stents** can be placed endoscopically to allow patients to eat.

Certain severe **benign esophageal strictures** that are refractory to routine endoscopic dilation may benefit from placement of **removable expandable stents**.

Luminal GI tract

Submucosal lesions (protuberances with normal overlying mucosa) can be seen on cross-sectional imaging or during routine endoscopic procedures. They may arise from the various layers of the gut wall or may represent extrinsic compression. Determining the origin of these lesions can be difficult, since they are often too deep for tissue diagnosis by mucosal biopsies. **EUS** is useful in characterizing the lesion in terms of size and layer of origin. EUS-guided **fine needle aspiration (FNA)** can also be performed to obtain samples, if necessary.

The advent of **capsule endoscopy** has permitted visualization of the small intestine that is not accessible by standard endoscopy. However, tissue sampling and therapeutic maneuvers cannot be performed. Endoscopists perform **single balloon enteroscopy**, which allows for advancement of the endoscope deep into the small bowel to access and treat lesions in areas that could not previously be reached.

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Pancreas

Pancreatic cancer carries a poor prognosis, in part because often early symptoms are nonexistent or vague. When the possibility of pancreatic cancer is raised, advanced endoscopists can quickly and safely evaluate the pancreas by **EUS** and make a tissue diagnosis by **FNA** while simultaneously staging the tumor. EUS FNA provides valuable information to determine the best course of treatment. In the head of the pancreas, tumors that cause obstructive jaundice can be treated with **biliary stents** as a bridge to surgery or for palliation. In pancreatic cancers that cause duodenal obstruction, **enteral metal stents** can be placed for palliation.

Pancreatic cystic lesions, some of which are premalignant, are increasingly being diagnosed on imaging studies. EUS FNA can be used to better characterize these lesions. **Endoscopic drainage of pancreatic pseudocysts** can be performed in select patients to alleviate symptoms.

In select cases of **severe necrotizing pancreatitis**, pancreatic **necrosectomy** can be performed endoscopically. **Pancreatic duct disruption, leaks** and **fistulae** are treated with **pancreatic sphincterotomy** and **stenting**.

Pancreatic **sphincter of Oddi manometry** can be performed as part of evaluating patients with **recurrent acute pancreatitis**.

Abdominal pain from pancreatic cancer that is not adequately controlled with standard pain medications can be debilitating. EUS-guided **celiac plexus block**, a procedure in which the celiac nerves are injected with an anesthetic and steroid (or alcohol in celiac neurolysis), has been shown to significantly improve pain control in a majority of these patients.

For **chronic pancreatitis**, the advanced endoscopy team can perform endotherapy for pancreatic duct strictures (dilation, stenting), stones (removal) or a celiac plexus block for intractable pain.

Biliary

The use of ERCP has shifted from a diagnostic to therapeutic modality. **Biliary stone removal** by ERCP is more than 90 percent effective. **Sphincter of Oddi manometry** is offered to select patients as part of the evaluation of **biliary or pancreatic type pain**. ERCP can be useful in the management of **benign and malignant biliary strictures** with the use of balloon dilation and/or stenting. **Endoscopic resection of ampullary adenomas** can be performed in select patients. For cases in which the biliary system cannot be accessed by ERCP, EUS can be used to perform **transluminal biliary drainage**.

Our expertise also extends to **pediatric ERCP**; the advanced endoscopy team has performed hundreds of pediatric ERCPs.

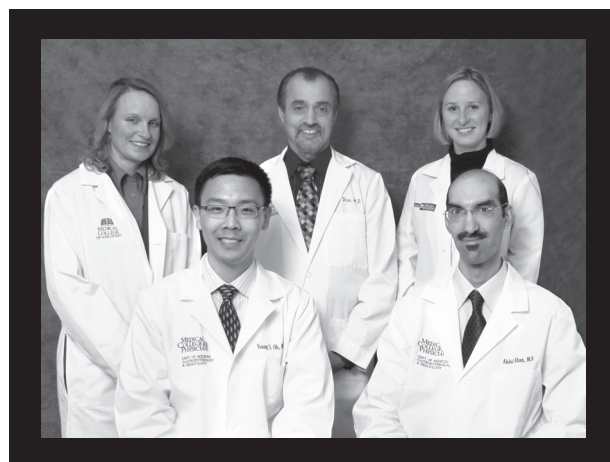
Colon

Rectal cancer, like esophageal cancer, can be treated with surgery or neoadjuvant chemoradiation followed by surgery, depending on the stage. **EUS** is useful in T and N staging to help decide the management plan. For obstructing **colon cancers**, **metal colon stents** can be placed to allow colon cleansing as a bridge to surgery or for palliative decompression in inoperable cases.

Advanced Endoscopy Team

Kulwinder S. Dua, MD
Abdul Khan, MD
Young (Danny) Oh, MD

Sarah Glapa, APNP
Glorine Neitzel, RN



How to Refer Your Patient

We will be happy to quickly facilitate the evaluation of your patients requiring advanced procedures by first seeing them in outpatient clinics or assisting with their transfer as inpatients.

To contact our advanced endoscopy team at Froedtert & The Medical College of Wisconsin, call 414-805-2090, 414-955-6830 (8:00 am to 5:00 pm) or 414-805-4700 (available 24 hours).