Cancer is the second most common cause of death in Americans (see www.cdc.gov). Colorectal cancer kills more Americans than any other malignancy except for lung cancer. The incidences and mortalities of the major gastrointestinal (GI) malignancies are shown in Table 1. Taken as a group, the five most common GI malignancies account for more cancers and more cancer deaths than for any other site.

Flexible endoscopy has given physicians unprecedented access to the GI tract. The ability to endoscopically visualize, biopsy, and apply therapy has had implications for the management of all the major GI malignancies. Accepted applications of endoscopy range from detection of malignant and premalignant lesions (e.g., colonoscopy for colon cancer screening), prevention of cancers through removal of precursor lesions (e.g., polypectomy), surveillance of premalignant conditions (e.g., Barrett’s esophagus), palliation of symptoms (e.g., placement of stents for biliary or esophageal obstruction) or staging of cancers to allow stage directed therapy (e.g., endoscopic ultrasound), and, in selected circumstances, definitive therapy for early stage neoplasms (e.g., endoscopic mucosal resection). This partial list of applications demonstrates the central role that endoscopy plays in management for those at risk for or with a GI malignancy. The wide variety of endoscopic techniques applied suggests a new subspecialty of endoscopy: “endoscopic oncology.” This is similar to “surgical oncology,” as it concerns itself with the subset of endoscopic procedures directly applied for the management of neoplastic and precancerous conditions.

It becomes apparent that a substantial proportion of endoscopies are performed for a cancer-related indication. To determine what proportion of endoscopic procedures are done out of a concern for cancer or a premalignant condition, a large national database of endoscopic reports (Clinical Outcomes Research Initiative [CORI]) was queried. Indications related to cancer were defined by convening an expert panel (Table 2).* We then queried the CORI database to determine the proportion of endoscopies done for these indications. The CORI database encompassed 105 practice sites in 28 states and had data on 245,971 patients.

The results demonstrated that the majority of endoscopic procedures (63.5%) in these practices were performed owing to a primary concern for cancer (Fig. 1). In fact, only for EGD were the majority not done for a cancer-related indication (32.7%). The great majority of colonoscopy (84.4%), ERCP (59.9%), and EUS (98.7%) procedures are done for cancer-related indications. For colonoscopy, the major cancer-related indications are surveillance of patients with prior polyps (21.3% of cancer-related indications), evaluation of hematochezia (26.2%), follow-up of a positive hemoccult test (15.6%), or surveillance in a patient with a family history of colorectal cancer (17.8%). For EGD, dysphagia was the most common cancer-related indication (62.4%) followed by anemia (23%) and Barrett’s screening/surveillance (12.2%). For ERCP, 98% of the cancer-related indications are related to bile duct obstruction. For EUS, the primary indications related to cancer are FNA of a mass (26%), stage a known cancer (23%), or evaluate a pancreas lesion (23%).


Table 1
Incidence and Mortality of the Five Most Common Gastrointestinal Malignancies

<table>
<thead>
<tr>
<th>Site</th>
<th>Incidencea</th>
<th>Mortalitya</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colorectum</td>
<td>53.9</td>
<td>21.6</td>
</tr>
<tr>
<td>Pancreas</td>
<td>11.1</td>
<td>10.6</td>
</tr>
<tr>
<td>Stomach</td>
<td>9.1</td>
<td>4.9</td>
</tr>
<tr>
<td>Liver/intrahepatic bile ducts</td>
<td>6.2</td>
<td>4.4</td>
</tr>
<tr>
<td>Esophagus</td>
<td>4.5</td>
<td>4.3</td>
</tr>
</tbody>
</table>

*aPer 100,000.

Table 2
Cancer-Related Indications for Endoscopic Procedures

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Indications</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGD</td>
<td>Dysphagia, Barrett’s, anemia, f/u gastric ulcer, familial polyposis, abnormal X-ray</td>
</tr>
<tr>
<td>Colonoscopy</td>
<td>Heme+, CRC screen/surveillance, (\text{ulcerative colitis screening, polyp on flex sig, family history, hematochezia, f/u polyp abnormal X-ray})</td>
</tr>
<tr>
<td>ERCP</td>
<td>Jaundice, biliary obstruction, stricture, pancreatic duct obstruction, stent placement, abnormal X-ray</td>
</tr>
<tr>
<td>EUS</td>
<td>Cancer staging, fine needle aspiration, submucosal tumor, stricture, pancreatic mass/cyst, lymphadenopathy, abnormal X-ray</td>
</tr>
</tbody>
</table>
With nearly two-thirds of all endoscopic procedures being done out of a primary concern for cancer, it is apparent that all of us who do endoscopy are endoscopic oncologists!

This textbook examines the interface between endoscopy and oncology. It is organized anatomically: esophagus, stomach, colorectum, and pancreaticobiliary. For each site, the relevant cancers and premalignant conditions are addressed and the use of endoscopy in their diagnosis, management, and treatment discussed in detail. Additionally, the reader will find chapters summarizing the state-of-the-art for nonendoscopic medical and surgical cancer treatment.

This book was written with the practicing endoscopist in mind. However, given the multidisciplinary approach of modern cancer care, this book will be of interest to all health care professionals who take care of cancer patients, including medical oncologists, radiation oncologists, and surgeons.

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