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Proton Pump Inhibitors: What the Internist Needs to Know 1
Stuart Jon Spechler

This report reviews the physiology of gastric acid suppression by proton pump inhibitors (PPIs) and anti-inflammatory effects of PPIs that are independent of their acid-suppressive effects. Valid indications for PPI use are discussed, as are putative adverse effects of PPIs that have been identified through weak associations in observational studies that cannot establish cause-and-effect relationships. Although evidence supporting the validity of these adverse effects is weak, there is also insufficient evidence to dismiss the risks. The report emphasizes how PPIs frequently are prescribed inappropriately and encourages physicians to carefully consider the indication for PPI therapy in their patients.

Proton Pump Inhibitor–Refractory Gastroesophageal Reflux Disease 15
Rena Yadlapati and Kelli DeLay

Proton pump inhibitor (PPI)-refractory gastroesophageal reflux disease (GERD) is defined by the presence of troublesome GERD symptoms despite PPI optimization for at least 8 weeks in the setting of ongoing documented pathologic gastroesophageal reflux. It arises from a dysfunction in protective systems to prevent reflux and as propagation of physiologic reflux events. Treatment possibilities include pharmacologic options, invasive management strategies, and endoluminal therapies. Management strategy should be personalized to the patient’s needs and mechanistic dysfunction. This article reviews the definition, mechanisms, and management options for PPI-refractory GERD.

Eosinophilic Esophagitis 29
Craig C. Reed and Evan S. Dellon

Eosinophilic esophagitis (EoE) is a chronic disorder characterized by symptoms of esophageal dysfunction and esophageal inflammation with intraepithelial eosinophils. EoE represents an important cause of upper gastrointestinal morbidity. Primary care providers are pivotal for timely and accurate recognition of symptoms of eosinophilic esophagitis, for facilitating diagnoses through specialist referrals, and for understanding management strategies. This process begins with a thorough understanding of the clinical features of EoE, its associated atopic conditions, and its evolving epidemiology.
The Revolution in Treatment of Hepatitis C
Jordan Mayberry and William M. Lee

Treatment of hepatitis C with interferon therapy produced some cures early on, but was associated with significant side effects. Because of further advances in the molecular understanding of hepatitis C, by 2014 effective treatments became available that far surpassed all prior interferon-based regimens in efficacy, tolerability, and safety. This led to rapid transformation of a hard-to-treat disease to simple, safe, and effective treatment offered to anyone. This article focuses on hepatitis C epidemiology; the clinical impact and consequences; discussion of past hepatitis C treatments; and a review of current recommendations for screening, diagnosis, and treatment of this ubiquitous virus.

The Future of Nonalcoholic Fatty Liver Disease Treatment
Khurram Mazhar

Nonalcoholic Fatty Liver Disease (NAFLD) is the most common cause of chronic liver disease in the United States. The NAFLD subtype, nonalcoholic steatohepatitis, represents a progressive form of the disease that can lead to cirrhosis, portal hypertension, and hepatocellular carcinoma. NAFLD is a diagnosis of exclusion and is strongly related to obesity and the metabolic syndrome. Although there has been an explosion of exciting therapeutic avenues for NAFLD in recent years, the bedrock of management continues to be lifestyle modification, weight loss, and optimization of metabolic risk factors.

Helping Patients with Gastroparesis
Frances U. Onyimba and John O. Clarke

Gastroparesis is an increasing concern and options remain limited. Diagnosis hinges on recognition of delayed gastric emptying in the absence of mechanical obstruction. Nontransit studies evaluating gastric motility serve a complementary role and may help guide therapy. Treatment consists of a combination of lifestyle and dietary medication, medications (antiemetics, prokinetics, neuromodulators, and accommodation-enhancers), alternative and complementary therapy, endoscopic therapy (pyloric-directed therapy, temporary stimulation, jejunostomy, or venting gastrostomy) and surgical therapy (pyloroplasty, gastric electrical stimulation, gastrectomy). Treatment can be tailored to the individual needs and symptoms of the affected patient.

Who Should Be Gluten-Free? A Review for the General Practitioner
Michelle Pearlman and Lisa Casey

Historically, a gluten-free diet was recommended only for those with celiac disease or IgE-mediated wheat allergy. With changes in food allergy labeling in the United States and the publication of several best-selling books, gluten-related disorders have come to the forefront of popular culture. As a result, there has been a dramatic increase in the number of gluten-free diet followers, many for nontraditional reasons. As “going gluten-free” has become mainstream, it is imperative that health care providers acquire the knowledge to identify true gluten-related disorders to effectively...
counsel their patients and minimize potential complications from following such a restrictive diet.

Diet and the Role of Food in Common Gastrointestinal Diseases 101
Michelle Pearlman and Oviea Akpotaire

Food plays an essential role in normal cellular processes; however, certain foods may also trigger or worsen certain disease states. This article focuses particularly on the role of food in common gastrointestinal and liver diseases, and discusses the current evidence that either supports or debunks common dietary recommendations. Nutrition topics discussed include the use of artificial sweetener for weight loss, avoidance of all dairy products in the setting of lactose intolerance, dietary recommendations for diverticular disease, and dietary management in cirrhotic patients with hepatic encephalopathy.

Colorectal Cancer Screening: Is Colonoscopy the Best Option? 111
Peter S. Liang and Jason A. Dominitz

Colorectal cancer is the second leading cause of cancer death in the United States. Prospective studies demonstrate that colorectal cancer screening reduces incidence and mortality, but uptake remains suboptimal. More than a third of age-eligible Americans are not up to date on screening. There are several available screening tests, which may cause primary care providers to ponder which is the best test. This article provides an overview of the available test options and the evidence for each; a summary of major guidelines; and a comparison of the two most widely used tests, colonoscopy and fecal immunochemical testing.

Colonoscopy, Polypectomy, and the Risk of Bleeding 125
Linda Anne Feagins

Colonoscopy with polypectomy is the means by which the incidence of colon cancer may be reduced; however, polypectomy is not without risk. Physicians must carefully weigh the risks and benefits of colonoscopy, particularly when patients are given prescriptions for antiplatelet agents and anticoagulants. This article discusses the risks of colonoscopy and polypectomy and reviews the most recent data for managing antiplatelet agents and anticoagulants in the periendoscopic period.

Irritable Bowel Syndrome: What Treatments Really Work 137
Nuha Alammar and Ellen Stein

Irritable bowel syndrome (IBS) is present in patients with symptoms of chronic abdominal pain and altered bowel habits but no identifiable organic etiology. Rome IV classification groups patients based on predominant stool pattern. Low-FODMAP diets have been helpful in providing symptom relief, as have cognitive behavioral and mind-body techniques that help patients manage symptoms. Targeted symptomatic relief for the patient’s predominant symptoms provides relief in addition to effective older medications that are inexpensive and reliable. Newer treatments for
IBS-D, such as eluxadoline, and IBS-C, with linaclotide, lubiprostone, plecanatide, also can provide durable relief.

The Management of Chronic Pancreatitis

Vaishali Patel and Field Willingham

Chronic pancreatitis (CP) may remain undiagnosed for years until patients exhibit manifestations, such as pain and exocrine or endocrine insufficiency. Some patients with CP develop serious complications, such as malignancy or peripancreatic fluid collections. Considering CP in at-risk patients such as those with a long-standing history of alcohol or tobacco use is key to establishing the diagnosis. Management involves reducing and eliminating exposures, dietary modification, treatment of pancreatic insufficiency, assessing for complications, and surveillance for neoplasia. The management of CP is often multidisciplinary involving medical, endoscopic, and surgical options for therapy.

Pancreatic Cysts: Sinister Findings or Incidentalomas?

Olaya I. Brewer Gutierrez and Anne Marie Lennon

Pancreatic cysts are common and are incidentally detected in up to 13.5% of individuals. Intraductal papillary mucinous neoplasm (IPMN) and mucinous cystic neoplasm (MCN) are precursors to pancreatic adenocarcinoma. Most will never develop into pancreatic cancer. Several types of pancreatic cysts have no malignant potential. Solid tumors can present as a pancreatic cysts. Guidelines recommend surveillance. Management includes differentiating IPMNs and MCNs from other types, identifying those at highest risk of harboring pancreatic cancer or high-grade dysplasia, and referral to a multidisciplinary group for evaluation and consideration of surgical resection.