A new year plus the delivery and administration of the first of millions of vaccinations for COVID-19 brings hope and joy to health care providers on the front line. Our focus as a growing institute is to bring into focus and measure the quality of clinical work provided by our programs and teams. We are developing the structure of our research program and our educational offerings. We welcome the addition of Ms. Andrea Plichta to the DHI team. One of the areas Andrea will be helping DHI with is cultivating relationships with our referring physicians. As part of that role, she will coordinate our CME and educational offerings highlighted in the newsletter. We would also like to introduce Ms. Anne Connor to the writing team. Anne joins Jamie Wecker as our second medical writer assisting our physicians to tell their stories.

In this edition, we focus on the use of medications in the medical management of obesity with Dr. Enrica Basilico, our new medical director of obesity medicine. A common question to the DHI surgeons is about the residents we train. We asked Dr. Marc Horton, Program Director of the Swedish General Surgery Residency Program, to shed some light on the value of a teaching surgeon and the role residents play in DHI. Lastly, Dr. Peter White, our new thoracic surgeon, provides an initial primer on the symptoms of hiatal hernias and how surgery can improve the patient’s quality of life as we delve deeper into hiatal hernias over the next year.

As always, we hope you find something in this edition that is applicable to improving the health of your patients.

Brian Louie, Jack Brandabur and Klesta Gjini
Weight loss meds—an underused primary care resource

Dr. Enrica Basilico, the new Medical Director for Swedish Weight Loss Services, chose to focus on obesity because she saw repeating patterns of comorbidities in her 20-year primary care practice. She thinks of obesity as the trunk of a tree, with its many comorbidities as branches. Rather than trimming the branches constantly, Basilico finds it more useful to address the root cause and improve her patients’ overall health.

Just a five-to-ten percent loss in total body weight can prevent diabetes, improve cholesterol profile, decrease cancer risk, reduce back and joint pain, decrease heartburn and improve sleep apnea. It can also reduce a patient’s need for the medications needed to treat comorbidities.

Lifestyle changes such as improved diet and exercise patterns are necessary, but not always sufficient, for weight loss. Primary care patients with obesity can often benefit from the extra boost of weight-loss medications. Obesity’s causes are far more complex than just lifestyle. While medications can help, they are often left on the shelf in the battle against obesity. “Eat less, exercise more” — the mantra delivered to patients over decades — does not address complex biological realities, such as insulin resistance, genomics and microbiome variations, that can make it difficult to maintain weight loss. “We need to consider weight loss medications as part of the standard of care for the treatment of obesity,” Basilico says.

Weight loss medications can help level the playing field for people who struggle to lose weight and maintain weight loss, says Basilico. Many have been told throughout their lives that they lack the willpower needed to achieve a healthier weight, yet they suffer from physiological disadvantages that diet and exercise alone cannot easily overcome.

In combination with diet and exercise, prescription drugs can break the metabolic stalemate required for sustained weight loss. When patients see benefits from behavior and lifestyle changes, it encourages them to build long-term healthy habits. The guidelines recommend medication when lifestyle modification alone has not been successful for patients with BMI 30 and above, or BMI 27 and above if comorbidities are present.

Primary care physicians at Swedish can refer patients to an obesity medicine specialist, who can help connect patients with dietitians and other supports. But as the “front line” against the obesity epidemic, primary care practices may dispense more weight loss drugs than do specialists.

Appetite suppression and satiety

Most weight loss medications target pathways that moderate appetite and satiety. This moderation is crucial — when people lose weight, their hunger increases and their metabolism slows down. While there are new obesity medicines in the pipeline, only a handful of medications are currently approved by the FDA for weight loss. Among them are bupropion/naltrexone, orlistat, liraglutide and phentermine/topiramate. These medications are well-tolerated by most, and their component drugs dictate the contraindications. Most physicians already have experience with these medications. For those who tolerate them well, these drugs can be a game-changer.

In for the long haul

For patients doing well on weight-loss prescriptions, says Basilico, medications may be indicated for extended use, not as a “jump-start.” One of the barriers to prescribing these medications long-term is that the medical community is only now accepting obesity as a chronic disease that warrants ongoing treatment. She compares prescription weight-loss drugs to blood pressure medications. “I wouldn’t recommend stopping those when blood pressure was at goal.”

Weight-loss drugs are generally underutilized, says Basilico, because of concerns about side effects — and because many physicians have a bias against prescribing medications for what they may see as a behavioral and lifestyle problem. Another consideration is the expense. Insurance companies often won’t pay for weight-loss drugs.

There are helpful guidelines about prescribing obesity medications, available to Swedish physicians through Epic, in the Providence Obesity Smartset. This guidance should populate in all patients with a BMI above 30.

(continued on next page)
Weight loss meds—an underused primary care resource (continued)

Included are guidelines for off-label prescribing when insurance does not cover brand name medications. Physicians can help their patients obtain weight-loss drugs by advocating for them with insurance companies. But it will also take some direct advocacy by obesity physicians to insurance companies. “The only way that we’re going to get any of these things covered is if we make noise and advocate for our patients,” says Basilico. She recommends that medical offices offer patients a form letter they can send to their insurance companies, explaining the need for coverage. Office staff can locate a template for such a letter on the Obesity Pathway in Epic.

Basilico believes that we are at the frontier of a new era in how we think about and treat obesity. This change will start with a shift in mindset at all levels of society, but physicians need to lead the charge. “There’s so much legacy thinking and stigma in the way that we approach this disease,” she said. “As doctors, we need to use all the tools available to us to help our patients make lifelong changes that will have so many other health benefits.”

A surgical residency program like no other

The surgeons of tomorrow are training at Swedish right now. Each year, five budding surgeons begin their careers in our surgical residency program. They spend long nights on call caring for our patients, honing their surgical skills on simulators, and discovering where their talents lie as surgeons under the tutelage of Program Director Marc Horton, M.D., and Associate Program Director Ryan Martinez, M.D. And for some residents, that means pursuing a fellowship in a digestive health specialty at the end of their five-year training.

But the focus is not just on the future. Residents ensure that our surgical patients receive the highest level of care day or night. And the caliber of applicants helps us to attract outstanding attendings who want to shape the future of surgery.

Residents have been an integral part of Swedish from the start. While the General Surgical Residency Program was accredited in 1958, Dr. Horton has found records of residents working with our founder, Nils August Johanson, M.D., as early as 1910. As Swedish has evolved over the years from a community hospital into a regional center providing tertiary and quaternary care, Dr. Horton and his colleagues have transformed the surgical residency program into one of the premier training grounds for new surgeons in the country.

As an “independent academic center,” as Dr. Horton calls it, Swedish offers residents both a high volume of cases and a mentor/mentee teaching style that allows for one-on-one learning right from the start. And the program has proven successful at launching the careers of talented general surgeons, as well as specialists. As the only surgical residency program within the Providence system, we are proud to see our former residents practicing across the Pacific Northwest and beyond.

A mom and pop residency

One of the unique features of our program is that residents start scrubbing in as interns. “Our volumes are so high that residents start out as an assistant early on,” says Dr. Horton. “These men and women have the opportunity to become very skillful and take on more and more of each operation.”

And with a class size of only five, our program is smaller than many others connected to medical schools or teaching hospitals. That means our residents work closely with attendings who are dedicated to helping them grow as surgeons to provide the best possible care.

Ed Hagen, M.D., one of our four chief residents this year, says that one of the reasons he chose Swedish was the “mom and pop” atmosphere created by Drs. Horton and (continued on next page)
A surgical residency program like no other (continued)

Martinez. He wanted to start out in the OR as soon as possible, but with the right support system. “I assisted on a laparoscopic appendectomy on my first day as an intern,” says Dr. Hagen. “At some academic institutions, you may not be operating one-on-one with an attending until your third year.

As residents rotate through surgical specialties, they have ample opportunities to assist with cases throughout the digestive tract. They start with thoracic surgery in the intern year, and add bariatric, endocrine, and a variety of cancer specialties including head and neck, stomach, intestines, hepatobiliary and colorectal surgery. Or as Dr. Horton puts it with a chuckle, “soup to nuts.”

Practice makes prepared surgeons

In 2020, the surgical residency program took a big step forward with the opening of a state-of-the-art simulation lab. Previously, residents mostly learned on the job and practiced skills on handmade box trainers constructed with repurposed materials. The downside was that they had to go elsewhere to prepare for the simulator tests required to become a practicing surgeon. Now, residents can log hours on the same machines used in testing, including the GI-BRONCH Mentor and LAP Mentor III, thanks to a philanthropic gift.

Having access to these advanced training tools not only gives residents the chance to prepare for their tests, but also the opportunity to practice and refresh themselves on upcoming procedures as they rotate between specialties. Just steps away from the resident offices, the simulation center is open 24/7 for residents to refine their endoscopy, bronchoscopy and laparoscopy techniques whenever they have time, day or night.

And thanks to our lab coordinator, Stephanie Soong, residents are perfecting their suturing and more from newly developed curriculum. Stephanie hauled nearly 30 pounds of pork belly into the simulation lab to ensure residents would have a suitable material with which to work. Our administrative team, which also includes Bethany Brown, surgery education manager, and Mark Padillo, surgery program manager, is dedicated to providing residents with innovative learning opportunities.

There for patients, now and in the future

The program not only benefits future patients of our graduates, but also our current patients. While they are recovering from surgery, patients can rely on residents to be there at any time of day — or more critically — late at night, when other physicians have gone home. Both a junior and senior resident are always available for a consult.

Having a resident program can also help with recruitment. The opportunity to teach and conduct research with residents without the pressures of an academic institution can help to attract new talent. “Attendings have the best of both worlds here,” says Dr. Horton. “They don’t need to chase an academic job across the country or worry about a publish-or-perish environment.”

And Dr. Horton believes that working alongside residents elevates care across the board. “I know for a fact that I’m a better surgeon having educated all these people over the past 28 years,” he says. “They keep me sharp.”

Swedish residents coming to a hospital near you

As our surgical residency program continues to turn out excellent surgeons ready to take on fellowships or start their practice, you might encounter Swedish trained surgeons across our system of hospitals, the wider Providence network, and across the country.

That includes Dr. Horton, as well as colorectal surgeon Melinda Hawkins, M.D. And the future looks bright, with three of our chief residents moving on to fellowships next year, and one beginning his career in private practice.

Dr. Ed Hagen will be heading to Michigan State University for a colorectal surgery fellowship. During his years at Swedish, Dr. Hagen realized how much he enjoyed a variety of procedures, from endoscopies to using robotic systems. And he enjoyed collaborating with a range of disciplines, including interventional radiologists and gastroenterologists. Here at SDHI, we’re excited to see where his career takes him, as well as the many future DHI specialists who will go through our surgical residency program.

SURGICAL RESIDENCY APPLICATIONS RECEIVED IN 2020

| 706 | ACCEPTED |
| 5 |
Surgery for large hiatal hernias can improve quality of life

**Hiatal hernias** occur when the natural esophageal hiatus enlarges, allowing abdominal anatomy to enter the chest. The region around the diaphragm is very dynamic. The diaphragm moves continuously to enable breathing, and the esophagus shortens and lengths with each swallow. While the abdomen exerts positive pressure on the hiatus, the chest exerts negative pressure. All those intersecting forces contribute to the disruption of the gastroesophageal (GE) junction’s normal anatomy.

The GE junction is normally a robust connection between the stomach and the esophagus. It includes the lower esophageal sphincter (LES), diaphragmatic crura, GE flap valve and the phrenoesophageal ligament. This combination forms an anti-reflux barrier, preventing heartburn and regurgitation. The phrenoesophageal ligament wraps around the GE junction’s circumference, securing it and helping it to rebound during motion.

Most physicians know that hiatal hernias can provoke acid reflux. But chronic reflux can also cause hiatal hernias. “Chronic inflammation and acid exposure can degenerate the phrenoesophageal ligament,” says Dr. Peter White, a thoracic surgeon at Swedish. He notes that we don’t know which came first for most patients, but over half of GERD patients also have a hiatal hernia. Age can also degenerate the ligament.

When the ligament loses its ability to stabilize the GE junction, the junction may slide into the chest. In more severe cases, known as *paraesophageal hernias*, the stomach and other abdominal organs also herniate into the chest.

**Hiatal hernia symptoms**

Hiatal hernias carry an array of bothersome symptoms. The three classic symptoms are: (a) heartburn, (b) regurgitation — the sudden, effortless reappearance of food or gastric liquid in the mouth — which differs from vomiting which requires effort, and (c) dysphagia, or difficulty swallowing. Symptoms may worsen as hernias become more extensive. At their worst, hiatal hernias can be life-threatening. When physicians identify hiatal hernias early, surgeons can offer a broader range of minimally invasive options and spare the patient years of medication and discomfort.

Hiatal hernias are classified as Type 1 through 4, depending on how much of the anatomy is displaced into the chest. In Type 2 and above, including the Type 3 and 4 paraesophageal hernias, patients may present with advanced symptoms. These include shortness of breath, pain (epigastric, back, flank or chest), early satiety, and obstruction with intolerance of PO intake or emesis. Pain and shortness of breath may be worsened by positional changes, like bending over, says Dr. White. Patients may also present with melena or chronic anemia due to Cameron’s ulcers within the herniated stomach.

With larger paraesophageal hernias, patients are at risk of developing acute gastric volvulus, where twisting within the hernia cuts off the blood supply to the stomach or other organs (volvulus with strangulation). Strangulation qualifies as a medical emergency and may require immediate surgery. While this condition is infrequent, the mortality for patients with acute gastric volvulus and strangulation ranges between 10 and 30 percent.

**Detecting and diagnosing hiatal hernias**

When physicians detect hiatal hernias early, they can reduce patient suffering, and thoracic surgeons can offer a broader range of options. Primary care physicians should watch for hiatal hernias in older patients, obese patients and who that also present with dysphagia. “The increased pressure from their abdominal weight adds one extra force pushing against the hiatal opening,” explains Dr. White.

A common first step in diagnosing hiatal hernias is an upper GI barium swallow study, allowing surgeons to see contractions of the esophagus, movements of the GE junction and is one of the most sensitive to identify hiatal hernias. The next step is an upper endoscopy.

(continued on next page)
“Any patient who has had long-standing reflux disease, or one of the alarm symptoms, should get an upper endoscopy. Alarm symptoms include difficulty swallowing, vomiting, aspiration, anemia, chest pain or weight loss,” says Dr. White, to look for things like Barrett’s esophagus, Cameron’s ulcers, underlying anatomical causes or esophageal cancer. Additionally, physicians should consider referring patients with persistent symptoms despite a dedicated PPI trial, intolerance of PPIs, or patients with long-term daily reliance on these medications.

Surgical techniques

Laparoscopic hernia procedures are usually possible, even when other organs are involved in a hiatal hernia. Open surgery is hard on older patients, who comprise the majority of advanced hernia cases. Paraesophageal hernias involve displacement of the stomach and often other organs, such as the transverse colon, small bowel, or spleen. Laparoscopic repair of paraesophageal hernia has low morbidity and significantly improves quality of life.

Surgery’s primary goals for large hernias are: moving organs back to their appropriate locations, decreasing the hiatus’s size to prevent a recurrence, ensuring sufficient esophageal length to bring the GE junction into the abdomen and performing an anti-reflux procedure. It’s critical to reduce tension on the esophagus, as excess tension can pull the GE junction out of place again.

After hiatal hernia repair, surgeons commonly use a fundoplication in which part of the stomach is wrapped around the esophagus to recreate the anti-reflux GE flap valve. The two most frequently used are the complete 360° Nissen fundoplication and the partial 270° posterior Toupet fundoplication. Surgeons choose a procedure by considering a combination of the patient’s esophageal motility and possible side-effects. Nissen patients tend to have higher dysphagia rates, the inability to belch or vomit, and gas bloating. Toupet patients have less dysphagia and gas bloating but less substantial reflux control over time.

Swedish surgeons are innovators in improving surgical techniques for hiatal hernias and developed a new hybrid approach a few years ago. It combines a fundoplication with Hill repair sutures that fix the GE junction in place. A study showed that this hybrid approach provided patients with a significantly better quality of life and fewer hiatal hernia recurrences than fundoplication alone.

When the hiatal closure is weak or under undue tension, the repair may fail, causing the hernia to recur. Dr. White uses an absorbable mesh to support tissues during healing. The use of mesh was once controversial when made of permanent polypropylene, as it could erode into the esophagus, but the biodegradable version has eliminated that concern.

Prognosis

In a Swedish study of elderly surgery patients (age 70+) with paraesophageal hernias, the recurrence rate was low, 18 percent, with only a quarter of patients still needing to use PPIs. Most importantly, physical and emotional quality of life was improved and sustained for at least five years (or to the end of the patient’s life). The authors found that it is generally worth the risk to treat elderly patients for paraesophageal hernias.

“Our patients overall have very good results with improvement in quality of life and improvement by other metrics such as how many antacids they have to take,” says Dr. White. And although about a third of all hiatal hernia patients have some sort of recurrence after five years, their quality of life during that time is far better, and recurrences are usually less severe. “Between 80 and 90 percent of patients at five years will still have benefit from their surgery,” Dr. White concludes.
Continuing education at Swedish Digestive Health

One of the important characteristics of Swedish’s institutes is that in addition to outstanding clinical care and research, there is a focus on education. Such education can be directed at the community Swedish serves, the patients to whom we provide care, and the physicians, advanced practice providers, nursing and the other health professions in and around the regions we serve. Traditionally, we hosted an annual gastrointestinal CME event through sponsorship from the Emil Jobb foundation and together with Boston Scientific have hosted the Swedish Nurses Endoscopy Conference. But, with changes in how providers wish to receive education and now the COVID-19 pandemic, we’ve had to rethink our CME offerings.

One of our most enduring education offerings is our annual Swedish Nurses Endoscopy Course. This past month we hosted the ninth course and this one had to pivot from in-person and live to virtual didactic sessions, but also virtual hands-on sessions sponsored by Boston Scientific. This year over 1,000 health care practitioners from around the U.S., including nurses, endoscopy technicians, MAs, PAs, NPs and other health care practitioners listened to the latest updates in general GI, therapeutic GI, GI surgery, pulmonary endoscopy, bariatrics, anesthesia, pathology, COVID-19 clinical practices, and navigating the terrain of social media. The full content of the Swedish Providence Nurses Endoscopy Conference is available for viewing and 10 ANCC contact hours until April 30th, 2021 at https://spenc.info.

One of the areas the pandemic has pushed us to rethink is our small group meetings with referring physician groups. The traditional dinner and talk concept has gone by the wayside. Fortunately, online virtual meetings with bring your own dinner and drink have allowed us to replace this with everyone in the comfort of their own home or office and without the need to travel or battle traffic. Our first such CME meeting was with the Bellingham GI group where we discussed the medical and surgical management of gastroparesis with Drs. Zia and Farivar. This allowed us to gather 19 physicians and advanced practice providers to hear two

(continued on next page)
focused talks with a robust discussion around gastroparesis in less than 2 hours. We are working to schedule additional events on foregut surgery and esophageal cancer. Shortly, these events will be accredited to allow participants to claim CME credit. If you are interested in scheduling a virtual educational event, please contact Andrea Plichta at andrea.plichta@swedish.org.

SAVE THE DATE!
The Swedish Digestive Health Institute will host the 10th Annual Nurses Endoscopy Conference on Saturday, January 29, 2022.