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Career Guide

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The NEW ENGLAND JOURNAL of MEDICINE

November 10, 2022

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On behalf of the entire *New England Journal of Medicine* staff, please accept my wishes for a rewarding career.

Sincerely,

Eric J. Rubin, MD, PhD

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Telemedicine Update for Physicians

Virtual care is proving valuable for both physicians and patients, but challenges exist

By Bonnie Darves

The use of telemedicine at the point of care, specifically virtual patient-physician visits, transpired as the equivalent of a national crash course in digital health in 2020, when the nation went into lockdown because of the COVID-19 pandemic. Since then, telehealth, which encompasses all health services that occur remotely, not just virtual visits via telemedicine, has expanded significantly and there are few physician practice organizations today that don't use some telehealth technology. The question now is, To what extent will telemedicine remain a major, standing care modality in the way that physicians and patients interact should the pandemic subside?

It's difficult to predict that trajectory, given certain regulatory and reimbursement issues, namely the potential expiration of the COVID-19 Public Health Emergency (PHE) that permitted flexibility in how physicians interact with patients and spurred authorization of reimbursement for virtual visits. But one thing is for sure: telemedicine has become a viable component of care delivery. This is evidenced by the significant investments being made in the telehealth space and the fact that physicians appear generally supportive of virtual visits because the encounters improve patient access to care.

"There is essentially no question that telemedicine is here to stay," said gastroenterologist James H. Tabibian, MD, PhD, a clinical professor of health sciences at the David Geffen School of Medicine at UCLA who co-authored a July 2022 *American Journal of Gastroenterology* article on current applications of telemedicine in the specialty. "It predated the current pandemic, was catalyzed by the pandemic, and will continue to have its place post-pandemic."

Dr. Tabibian observed that a growing number of physicians are converting an increasing proportion of their outpatient encounters to telemedicine visits and that remote patient monitoring (RPM) technologies have proved a viable way to assess and monitor patients in between visits. "Without question, telemedicine and RPM eliminate a large amount of the hustle and bustle," he said, of having patients travel to a clinic, spend time in the waiting room, and have nursing staff take their vital signs. "On the professional side, practically no one is complaining. And in my experience, the vast majority of patients are appreciative of the opportunity to use telemedicine tools and platforms."

Joseph C. Kvedar, MD, a Harvard Medical School professor, senior advisor in virtual care at Mass General Brigham in Boston, and an expert in connected health, thinks that the reimbursement uncertainty for telemedicine is a chief obstacle to advancing telemedicine use. "Even though patients and physicians are sold on the telehealth technology, reimbursement is fragile," said Dr. Kvedar, a dermatologist and former president of the American Telemedicine Association. The reimbursement issue, along with the PHE status — it's currently set to expire in October 2022 — must be addressed before organizations make the investments needed to create a truly hybrid delivery system, he said. Dr. Kvedar thinks that telehealth is currently "caught in the doldrums. Making telehealth easy to use, and having reliable, predictable reimbursement are key to telehealth's continued growth," he said.

Physicians cite improved care access as a chief benefit

Despite these concerns, technology companies are banking on telemedicine remaining an integral part of care delivery, and some specialties are demonstrating its value as a viable care modality. One is psychiatry, which has embraced telemedicine and has witnessed a significant increase in online visits and a growing satisfaction among patients who have received their care virtually.

Of course, the pandemic, especially during the early lockdown phase, contributed significantly to telemedicine's increased usage in the field. A 2021 survey conducted by the American Psychiatric Association (APA) found that 81% of psychiatrist respondents continued to see between 75% and 100% of their patients via telehealth, and 67% reported seeing patients in other states. A June 2020 APA survey, by comparison, found that 64% of respondents did not see any patients via telehealth in 2019.

Shabana Khan, MD, director of telehealth for the Department of Child and Adolescent Psychiatry at the NYU Grossman School of Medicine in New York City, said that telemedicine in psychiatry has been a boon for patients, especially those in historically underserved areas. "The [APA survey] data showed that no-show rates dropped significantly as telehealth became the primary way that patients kept their appointments, and that 84% of psychiatrists began seeing new patients during the pandemic," Dr. Khan said.

Research suggests that patients seen at home are more likely to continue their course of therapy, Dr. Khan added, which in turn leads to improved medication compliance and fewer ER visits. In the 2021 APA survey, 90% of psychiatrists reported that patients seen via telehealth were satisfied with the care they received.

A similar trend has occurred in family medicine, according to Sterling Ransone Jr., MD, president of the American Academy of Family Physicians (AAFP). "Before the pandemic, only about 10% of family physicians were using telemedicine. By April 2020, it was over 90%," he said, admitting that it was challenging for physicians to make the shift quickly in the absence of a roadmap for how to deliver virtual care safely and efficiently. "Over time, we [the AAFP] have fine-tuned that, by offering courses and guidance. But making the transition was definitely eye-opening for me — I'm calling it the house call of the 21st century," Dr. Ransone said. "It's a great tool for augmenting my practice."

In his rural practice in Deltaville, Virginia, Dr. Ransone's use of telemedicine has been especially valuable with some of his elderly patients who traditionally would have to travel long distances to see him. It's also been helpful for a subset of his young patients, college students, especially for addressing behavioral health issues. Instead of having to wait until school vacation to see those patients, Dr. Ransone offers video visits, which patients frequently attend while in their dorm rooms.

For Jordan J. Karlitz, MD, an associate professor at the University of Colorado School of Medicine and chief of gastroenterology at Denver Health, telemedicine's value in increasing patient access to care is its chief benefit. "At Denver Health specifically, telehealth has been very helpful to address health inequities because Denver Health serves as safety-net facility for many patients," said Dr. Karlitz, who coauthored the American College of Gastroenterology's *Essential Guide to Telemedicine in Clinical Practice*. "Having a telehealth option for care can prevent patients from missing work and allow them to avoid arranging for childcare or traveling to the hospital, sometimes via circuitous public transit routes."

Dr. Karlitz is convinced, however, that virtual visits with a single physician only scratch the surface in terms of telehealth's potential for improving overall care. As a cancer genetics specialist, he is a big proponent of developing integrated virtual networks to enable and expedite multispecialty care for patients with complex issues. "We have to move beyond thinking of telehealth as simply a modality that allows real-time audio-video communication with patients. We have to go several steps beyond and think about a paradigm shift in which we utilize electronic communication to create virtual, integrative care networks," he said. For example, Dr. Karlitz helped develop a platform called GI On Demand that creates pathways for patients to virtually access specialized services, such as GI genetics and GI psychology, that might not be readily available in their area. "A virtual ecosystem can allow much easier and streamlined access to these services," said Dr. Karlitz.

Addressing the barriers to effective telemedicine

Despite the popularity of telemedicine among physicians and patients, there are barriers to its widespread continued use going forward. The chief one is regulatory. The Public Health Emergency that the US Department of Health and Human Services declared in January 2020 enabled greater flexibility in how physicians treat patients by permitting broad use of both telehealth and audio-only visits. Although many policy experts expect that the PHE will be extended beyond October 2022, and physician associations are calling for its extension given persisting prevalence of COVID-19, that's not assured.

Reimbursement issues may also affect the extent to which telemedicine becomes embedded as an alternative to in-person patient visits with physicians and continues to grow. Although many payers, government and commercial, have been reimbursing physician services delivered telehealth at parity or near parity with in-person visits, there are signs that some are pulling back.

Ensuring ease of technology use is also important to ensuring physicians' support of telemedicine for patient visits and other telehealth platforms and applications, especially with regard to electronic health records (EHRs). "There's a lot happening with technology in telehealth, but we still need full integration with EHRs and reliable video calls," Dr. Karlitz said, as well as improved asynchronous communication between patients and physicians.

The other major issue — the elephant in the room as far as some physicians and policy experts are concerned — is ensuring that virtual care can be both safely delivered and is medically appropriate for individual patients. "While telemedicine-enabled diagnosis can be useful and holds much promise, there is still a great need to better understand its implications on the quality and safety of diagnosis," said Dr. Tabibian. "We also need more data to help identify the best methods for providing a diagnosis virtually, including being able to determine, with high fidelity, when virtual diagnosis is feasible or when an in-person visit is warranted." Dr. Tabibian and other sources also stressed the importance of ensuring all patients have reliable internet access, which is not the case currently.

Regardless of what the future holds for telemedicine reimbursement and government policy regarding telehealth services, some organizations are moving ahead rapidly with their implementation of technologies that facilitate virtual health services. Providence Health System in Seattle is one. Over the past several years, the health system has been piloting technology that allows for what it calls multimodal interactions that might incorporate not just virtual visits and remote patient monitoring but also asynchronous communication, secure text messaging, and near real-time chat-based exchanges (human or bot) with patients.

With each iteration of and development in multimodal care, Providence keeps a keen focus on ensuring that the technology supports physician workflow and doesn't add burden for physicians, patients, or staff, said neurologist Todd Czartoski, MD, Providence's chief medical technology officer. "What physicians want to know is whether the technology will provide better [care] for their patients and make their practice lives easier, and will it improve their productivity," he said. Based on its successes with telemedicine and telehealth to date, Providence is developing a "hospital at home" program

to enable patients to receive acute hospital-level care in their homes — a model that Dr. Czartoski thinks may move telemedicine and telehealth to the next level.

Due diligence a must in evaluating telemedicine practice opportunities

For physicians who've gotten a big dose of telemedicine practice during the pandemic and decided that they enjoy it, opportunities for telemedicine-intensive or telemedicine-only practice are plentiful — with both established organizations and relatively new ones. The market is especially brisk in psychiatry, primary care specialties, and urgent care, but jobs (or telemedicine consulting opportunities) exist in many other specialties as well.

As with most things in life, telemedicine practice opportunities are not equal, and the way that positions, practice settings, and support are structured can vary considerably. For that reason, it's important for physicians considering telemedicine practice to do as much — and possibly even more — due diligence than they might when looking at traditional office- or hospital-based opportunities.

When exploring telemedicine practice, physicians should think about opportunities in several contexts, according to Dr. Karlitz, because the range is wide, from practices that are primarily in-person but incorporate telehealth services to those that are entirely telehealth based. "It's important to ask what the payer mix is for patients because, depending on insurance type (commercial, Medicare, Medicaid), the coverage for telehealth services can vary considerably," Dr. Karlitz said.

Sources interviewed for this article offered some practical tips for vetting potential jobs and the organizations offering them:

Ensure that the organization has a verifiable track record in providing safe, effective, ethical, and legally sanctioned care. Physicians should determine whether the entity is operated and overseen by individuals who actually understand care delivery — which would ideally include practicing physicians. A startup that has secured a lot of capital funding may be financially viable, but if their model doesn't take into account all the nuances of and requirements for regulation-approved, high-quality care provision, problems might arise. Further, physicians should ask about internal legal support available, Dr. Khan suggested, in case it's needed.

In addition, find out where the entity's "authority" to practice medicine resides, locally/regionally or with a corporate office that might be distant from care-provision operations, according to Marschall Smith, executive director of the Interstate Medical Licensing Compact, an agreement among numerous US states and territories to streamline physician licensing among multiple states.

With telemedicine-only organizations, physicians also need to ask detailed questions about the schedule and compensation. They should determine how patient visits are scheduled and allocated, how much time is permitted for administrative work between visits, and precisely how they'll be compensated — whether that's salary, per visit, or hourly, for example.

Finally, and most importantly, physicians should ask about the organization's philosophy of care and ensure that it aligns with their own, several sources advised.

Learn about the "backbone" for delivering virtual care. This includes not only the platform for virtual visits but also the electronic health record in place (ideally integrated into the visit platform), and the support available to physicians and patients during and after visits. For example, ensure that the organization has a robust referral and assistance system when primary care patients need to obtain specialty care or a procedure. Also make sure that patients are well supported administratively — for general questions, prescriptions and refills, and physician or nurse advice, especially post-visits.

Physicians should consider asking for a demonstration of the telehealth platform and gain an understanding of how the platform interfaces with the EHR, Dr. Karlitz said, including how clinical information obtained during a telehealth encounter is transferred into the patient's EHR. Contacting a practice manager is often a good first step to find out more about how committed an organization is to telemedicine, but physicians should also reach out to prospective colleagues for a candid perspective.

"The best way to gauge this is likely by connecting with the physicians who are part of the practice and asking them directly about what proportion of their practice is presently telemedicine and if there is the option to increase this if desired. They should also ask what, if any, pain points there may be vis-à-vis telemedicine in the practice," Dr. Tabibian said.

Ensure that the organization meets all federal and state regulations, and physician licensing requirements, wherever they operate. The latter (licensing) can be complex, as any physician who has moved among states knows.

Regulatory requirements for telemedicine practice vary from state to state, as do associated licensing requirements. If the organization expects a new physician to treat patients in several states, find out how the multistate licensure process is handled.

In other words, does the organization assist with licensing applications, and do all the states the organization provides physician services in permit physicians to practice at full scope regardless of where they're physically located? Mr. Smith advised physicians considering telemedicine practice to ask telemedicine employer organizations about their authorizing structure — specifically whether it's a corporate office or some regional entity.

Resources

- American Telemedicine Association (**www.americantelemed.org**)
- Center for Connected Health (**cchpca.org**)
- Interstate Medical Licensure Compact Commission (**imlcc.org**)

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When You Finally Get to Pick — Choosing Your First Job out of Training

By Nisha Mehta, MD, *a physician leader whose work focuses on physician empowerment, community building, and career longevity in medicine*

Do you remember checking off the "pre-med" box in college? For many of us, that decision set us on a trajectory for the next decade or more — what classes to take, exams to study for, and rotations to do. Sure, we had some decisions along the way, such as choice of specialty, fellowship, and medical school and training programs, but for the most part, somebody told us where and when to show up, and what to do, and we did so.

As you approach the end of training, there's a different decision that in many ways is much more complicated. Now you've got to figure out what that life you've been working so hard for *actually looks like*. Do you want to be an academic physician, a physician employed by an organization, in private practice, or go out on your own? Do you want to practice full time or part time, and if part time, what does that look like? Do you want to take call or not? What complexity of patients do you want to see? Who do you want your colleagues to be?

For the first time in your adult life, you get to decide what everyday looks like, and for many early career physicians, on any given day, depending on who you speak to, you could be persuaded into a lot of decisions.

This is where it's really important to take a step back, and ask yourself what it is that you really want. It's also time to brush away all the answers that you "should" give, which you've carefully honed over the years to reflect preconceived notions about what being a doctor looks like. You really don't have to fit a stereotype anymore. If you want to work two days a week from 9–2, chances are, if you try hard enough and are flexible enough, you can make that happen.

Here's my advice. First, take some time to list all of your dealbreakers. This goes in both directions in terms of things that you need to be happy and things that will actively make you unhappy. If you know that any job that requires you to take your vacation in one week blocks instead of having the ability to take individual days will detract from your overall happiness, put it on there. Then start listing qualities in the ideal situation. Be brutally honest with yourself about things: how much money you want to earn, where you want to live, and what kind of hours you want. If your ideal job has a true lunch hour where you can eat or exercise, put that down on the list. If your ideal job requires partners that regularly have journal club and go over cases together, put that down. This isn't to say you will find a job that has every single thing you want, but it helps to have objective criteria to look at when evaluating options. This way, you don't get swayed when a job offers you twice what you had listed as the amount of money you need, but is wrong for you in every other way.

Once you have your list ready, try and talk to people who have similar jobs. This can be hard for a lot of trainees, because you may not have a lot of exposure to physicians outside of your academic institution. Reach out to your alumni networks from medical school and residency, online physician communities, medical societies, or elsewhere to see what pros and cons they may point out that you hadn't thought of. While you have their attention, ask them if they know of any jobs that meet those criteria or places to start looking, and ask them for input about jobs that you may have come across. Often times, someone will have inside information about a particular organization or group that may positively or negatively influence whether you want to take a job.

Of course, your final step is how you actually feel after you've interviewed at a job.

As straightforward as this may sound, most graduating trainees don't take the time to go through this process, and it's probably a big contributor to why job turnover is so high in the first few years into practice. Many people jump on job offers for the wrong reasons — the job is prestigious, recommended to them by a mentor, it's in the town they've always pictured themselves living in but not the right practice setting, or simply because they're afraid that they won't find another job. Although some practicalities will always factor into your job search, don't start from that point. Start with that list you put together above, and it'll give you criteria to judge each opportunity that comes your way, and hopefully land that job that's right for you. While no job is perfect, making sure that your major goals are fulfilled by it will go a long way towards both personal and professional happiness.

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CLINICAL PRACTICE

Caren G. Solomon, M.D., M.P.H., *Editor*

Gastroesophageal Reflux Disease

Ronnie Fass, M.D.

This Journal *feature begins with a case vignette highlighting a common clinical problem. Evidence supporting various strategies is then presented, followed by a review of formal guidelines, when they exist. The article ends with the author's clinical recommendations.*

A 55-year-old woman presents with symptoms of heartburn and an 8-year history of a sour, bitter taste in her mouth. Her symptoms have increased in frequency and severity over the past year and now occur daily, typically after meals and at nighttime. She has no dysphagia, odynophagia, weight loss, anorexia, or upper gastrointestinal bleeding. Her medical history includes hypertension (treated with lisinopril) and obesity; the body-mass index (BMI, the weight in kilograms divided by the square of the height in meters) is 31. She smoked a half pack of cigarettes daily for 20 years but stopped 15 years ago. She eats late dinners that usually include wine. She has tried antacids and famotidine (at a dose of 20 mg twice daily) for a few months with minimal effect on the symptoms. How would you manage this case?

From the Esophageal and Swallowing Center, Division of Gastroenterology and Hepatology, MetroHealth Medical Center, and Case Western Reserve University — both in Cleveland. Dr. Fass can be contacted at ronnie.fass@gmail.com or at the Esophageal and Swallowing Center, MetroHealth Medical Center, 2500 MetroHealth Dr., Cleveland, OH 44109.

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CME at NEJM.org

THE CLINICAL PROBLEM

Gastroesophageal reflux disease (GERD) is a condition in which the reflux of stomach contents causes troublesome symptoms and complications.[1] In population-based studies, mild symptoms that occurred at least 2 days a week and moderate-to-severe symptoms that occurred at least 1 day a week were often considered troublesome by patients.[1-3] Although heartburn and regurgitation are considered typical, a broad range of manifestations have been associated with GERD,[1,4] including chronic cough, a globus sensation, wheezing, posterior laryngitis, dental erosions, and idiopathic pulmonary fibrosis (Table S1 in the Supplementary Appendix, available with the full text of this article at NEJM.org).[5]

The estimated prevalence of GERD is 13.3% of the population worldwide and 15.4% in North America, and costs related to GERD in the United States are estimated at $10 billion annually.[6,7] Risk factors for GERD include an age of 50 years or older, current smoking, use of nonsteroidal antiinflammatory drugs, obesity (BMI >30), low socioeconomic status, and female sex.[6,7] In a U.S. study that involved participants who completed a national survey on gastrointestinal symptoms, 44.1% of the participants reported a history of GERD symptoms, 30.9% reported having had symptoms in the past week, and 54.1% had persistent symptoms despite daily use of proton-pump inhibitors (PPIs).[8]

The phenotypic presentations of GERD include nonerosive reflux disease (in 60 to 70% of patients), erosive esophagitis (in 30%), and Barrett's esophagus (in 5 to 12%).[9] The focus of the present article is on the first two conditions. Nonerosive reflux disease is associated with abnormal exposure to esophageal acid in the absence of findings of mucosal breaks on endoscopy,[10-13] and erosive esophagitis is characterized by breaks in the esophageal mucosa (Fig. 1).[1] The natural course of GERD

KEY CLINICAL POINTS

GASTROESOPHAGEAL REFLUX DISEASE

- Patients with heartburn and symptoms such as dysphagia, odynophagia, weight loss, anorexia, gastrointestinal bleeding, and vomiting (known as "alarm symptoms") should undergo an upper endoscopy.
- Patients without documented gastroesophageal reflux disease (GERD) who have heartburn that is refractory to treatment and a normal endoscopy should undergo reflux testing while not receiving treatment, whereas patients with documented GERD and with heartburn that is refractory to treatment should undergo impedance–pH testing while receiving treatment.
- Lifestyle modifications are a key part of the medical management of GERD; currently, proton-pump inhibitors (PPIs) are the most effective medications.
- In patients with uncomplicated GERD that is responsive to 8 weeks of PPI therapy, discontinuation of therapy is an appropriate consideration.
- Patients should take the lowest dose of PPI that controls their symptoms, and the need for long-term PPI treatment should be periodically evaluated.
- Other interventions for GERD include endoscopic treatment and surgery (fundoplication or, in patients with a body-mass index [the weight in kilograms divided by the square of the height in meters] of >35, gastric bypass).

remains incompletely understood, but evidence suggests that there is limited progression (from nonerosive reflux disease to erosive esophagitis, and from erosive esophagitis to Barrett's esophagus) and regression (from erosive esophagitis to nonerosive reflux disease) over time.[9,14,15]

STRATEGIES AND EVIDENCE

DIAGNOSIS AND EVALUATION

A diagnosis of GERD in practice is commonly made on the basis of the presence of characteristic symptoms, particularly heartburn and acid regurgitation. However, these symptoms may be present in other disorders (e.g., supragastric belching, vomiting syndromes, gastric and esophageal motility disorders, esophageal mucosal disorders, and functional esophageal disorders).[16] Functional heartburn (defined as burning retrosternal discomfort or pain in the absence of GERD) and reflux hypersensitivity (defined as heartburn and chest pain with symptoms triggered by reflux events but with normal esophageal mucosa and acid exposure) account for approximately 50% of patients who present with heartburn and a normal endoscopy.[10]

There is no difference in heartburn severity among GERD phenotypes or between GERD and functional esophageal disorders such as functional heartburn.[17] Although patients with functional heartburn do not have a response to antireflux treatment, those with reflux hypersensitivity have some, albeit limited, response to antireflux treatment.

Patients should be queried about the frequency, severity, and duration of symptoms; specific triggers (dietary or nondietary); timing of symptoms (daytime, nighttime, or both); and the presence of associated symptoms such as dysphagia, odynophagia, weight loss, anorexia, vomiting, and upper gastrointestinal bleeding (known as "alarm symptoms"). In the absence of alarm symptoms, empirical antireflux treatment for 2 months is a reasonable initial diagnostic and therapeutic approach. Another option in patients with typical symptoms is the PPI test, which is a short course (1 to 2 weeks) of high-dose PPI taken twice daily.[18] A recent meta-analysis of studies that evaluated the PPI test showed a pooled sensitivity of 79% (95% confidence interval [CI], 72 to 84) and a pooled specificity of 45% (95% CI, 40 to 49) for GERD in patients who had undergone endoscopy and, if an endoscopy was negative, had subsequently undergone pH testing.[19]

OTHER TESTING

Upper endoscopy is generally limited to patients with GERD who report alarm symptoms, who have no response or an incomplete response to treatment or have recurrent GERD after a successful 8-week course of empirical therapy, who are candidates for antireflux or bariatric surgery, or who are at increased risk for Barrett's esophagus (i.e., have chronic [≥5 years] GERD symptoms and three or more of the following risk factors: male sex, an age of >50 years, White race, tobacco smoking, obesity, or a family history of Barrett's esophagus or esophageal adenocarcinoma).[20] Upper endoscopy is highly specific for GERD but has low sensitivity because most patients have a normal-appearing esophagus on upper endoscopy.[21] The severity of erosive esophagitis is classified with the use of the Los Angeles classification system (Table S2).[22] Advanced technologies (e.g., high-magnification endoscopy and narrow-band imaging) may increase the diagnostic yield of upper endoscopy in GERD but are not routinely used.[23] Esophageal biopsy is primarily performed to rule out other esophageal mucosal disorders, such as eosinophilic esophagitis.

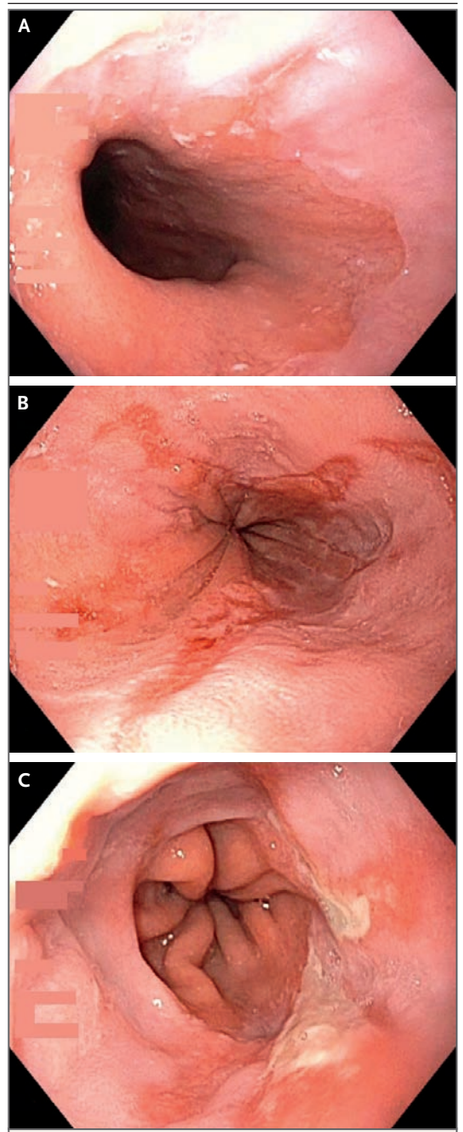

Figure 1. Erosive Esophagitis.

Shown are a single esophageal mucosal break (Panel A), several esophageal mucosal breaks (Panel B), and esophageal mucosal breaks and ulceration (Panel C).

Reflux testing allows for assessment of the degree, height, and type (acidic or weakly acidic) of gastroesophageal reflux and the correlation between symptoms and reflux events.[24] Ambulatory 24-hour pH monitoring[25] is highly sensitive (79 to 96%) and specific (85 to 100%) in patients with erosive esophagitis but less so in patients with nonerosive reflux disease. During reflux testing, a pH catheter is introduced into the nose and placed 5 cm above the proximal margin of the lower esophageal sphincter. The ambulatory 24-hour esophageal impedance–pH monitoring system includes sensors that can detect impedance changes in response to liquid reflux or belched air. This technique has a sensitivity of approximately 90%[26] and can also identify reflux with lower acidity (pH level, >4). In addition, impedance–pH testing can characterize reflux composition as liquid, gas, or mixed. An alternative approach is the wireless pH capsule, which provides an extended recording time of up to 96 hours, which overcomes the day-to-day variability observed when intraesophageal changes in pH level are recorded. The capsule is introduced orally by means of a delivery device and attached to the distal esophagus. A sensor records pH changes and transmits the data to a recording device worn by the patient. This technique has fewer adverse effects in patients than catheter-based pH monitoring. Prolonged recording of the pH level increases the likelihood of identifying abnormal acid reflux, especially in patients with infrequent symptoms.[24]

Guidelines from the American College of Gastroenterology recommend ambulatory reflux monitoring as preferential to both patient-reported GERD questionnaires and assessment of response to PPI therapy (albeit based on very-low-quality evidence) for use in making a conclusive diagnosis of GERD in patients with suggestive symptoms.[24] Appropriate candidates for reflux monitoring include patients who have GERD symptoms despite twice-daily PPI treat-

Table 1. Lifestyle Measures for Patients with Gastroesophageal Reflux Disease (GERD).

Avoid eating within 3 hr before bedtime; sleep on the right side (use special positional pillows) and observe good sleep hygiene.
Avoid alcohol, caffeine, carbonated beverages, and smoking.
Lose weight (any amount).
Elevate the head of the bed 15 to 20 cm (6 to 8 in) or use a bed wedge and incline mattress.
Keep meal sizes small. Consider four or five small meals instead of three large meals during the day.
Avoid spicy foods and high-fat meals. Avoid lying down or napping immediately after a meal.
Identify dietary triggers and minimize common precipitants (e.g., peppermint, onion, fresh citrus juices, tomato paste, and chocolate).
Avoid tight-fitting garments.
Avoid bending over.
Chew gum to promote salivation, which neutralizes acid reflux.
Avoid medications that relax the lower esophageal sphincter (e.g., benzodiazepines, theophylline, calcium-channel blockers, tricyclic antidepressants, anticholinergics, progesterone, and sildenafil).
Engage in stress-reduction techniques.

ment and normal findings on endoscopy. For patients without previous evidence of GERD, any one of the aforementioned reflux tests performed while the patient is not receiving PPI treatment is recommended; the wireless pH capsule is preferred, if available.[27] For patients with previously documented GERD, impedance–pH testing while the patient is receiving PPI treatment is recommended. Reflux testing is also indicated in symptomatic patients with normal findings on endoscopy who are candidates for antireflux surgery or endoscopic treatment, patients with relapse of symptoms after having undergone endoscopic or surgical intervention for GERD, patients with new reflux symptoms after having undergone bariatric surgery, and patients with GERD complications for whom confirmation of acid control would be beneficial.

Esophageal manometry has no role in the diagnosis of GERD but is used to guide the placement of reflux-testing probes, to rule out esophageal motor disorders in patients with GERD who have dysphagia or chest pain, and to assess esophageal function before antireflux surgery. The double-contrast barium esophagram has low sensitivity and specificity for GERD and is not recommended.[28]

TREATMENT

Treatment of patients with GERD includes lifestyle modifications alone or in combination with pharmacologic, endoscopic, or surgical interventions, depending on the severity of the disease.

LIFESTYLE CHANGES

Patients should be counseled about common reflux precipitants and encouraged to avoid lifestyle and dietary habits that exacerbate their symptoms (Table 1). The evidence is strongest for the benefits of weight loss, elevation of the head of the bed, and the avoidance of food for at least 3 hours before bedtime.[29,30] In a prospective study, women who adhered to several antireflux lifestyle approaches (maintaining normal weight; never smoking; engaging in moderate or greater physical activity; avoiding more than 2 cups of coffee, tea, or soda daily; and eating a prudent diet) had only half the risk of GERD symptoms as women who adhered to none of the lifestyle approaches.[31]

PHARMACOLOGIC

Pharmacologic treatment for GERD includes medications taken as needed or daily. The medications that are most frequently used are antacids, histamine$_2$ blockers, and PPIs; other medications are used less frequently (Table 2).

Antacids

Antacids have an immediate and very short-term effect. Alginate-based formulations include a gelatinous polysaccharide extract from brown algae and sodium bicarbonate or potassium bicarbonate. In the presence of gastric acid, alginates precipitate into a gel and create a foamy raft that displaces the postprandial acid pocket. Patients with breakthrough symptoms can take antacids and alginates either on demand or in addition to daily PPI therapy. A meta-analysis showed that the relative percentage of patients who reported positive results was 11% higher with antacids and 60% higher with alginates than with placebo.[32] Alginates have been shown to be more effective than antacids in controlling postprandial exposure to esophageal acid.[33]

Mucosal Protectants

Sucralfate is a topical mucosal protective agent that is superior to placebo for symptom control, healing of erosive esophagitis, and prevention of symptom recurrence.[34] The level of symptom control provided by sucralfate has been reported to be similar to that of alginate plus antacids and histamine$_2$-receptor antagonists.[25,35]

Histamine$_2$-Receptor Antagonists

Histamine$_2$-receptor antagonists are used on demand for treatment of postprandial heartburn or daily for mild-to-moderate GERD symptoms or low-grade erosive esophagitis and as a bedtime add-on for breakthrough symptoms in patients who have not had a response to PPI therapy. The available histamine$_2$-receptor antagonists are similar in their antisecretory and clinical effects. Daily use of histamine$_2$-receptor antagonists may result in tachyphylaxis that cannot be overcome by higher doses and that persists for several days after drug discontinuation.[36]

PPIs

PPIs are the most effective medication for GERD symptom relief, healing of erosive esophagitis, and prevention of disease relapse and complications. In a meta-analysis of randomized, controlled trials of antireflux therapies in patients with erosive esophagitis, the percentage of patients with esophageal healing within 12 weeks after starting treatment was 51.9% with histamine$_2$-receptor antagonists as compared with 83.6% with PPIs, and healing was more rapid with PPIs. Moreover, PPIs were superior to histamine$_2$-receptor antagonists in relieving symptoms (in 77.4% vs. 47.6% of patients), maintaining symptom relief, and preventing complications.[37]

The seven currently available PPIs differ in pharmacokinetics and pharmacodynamics but have similar clinical effects. PPIs should be taken 30 to 60 minutes before eating, preferably in the morning, and used regularly to achieve a maximum clinical effect.

PPIs are the first-line treatment in patients with moderate-to-severe erosive esophagitis (Los Angeles classification grade C or D, with grades ranging from A to D and higher grades indicating erosion of a greater area of the esophagus), complications of GERD (esophageal ulcer or stricture), Barrett's esophagus, and extraesophageal manifestations. Recommendations for the use of PPI therapy are summarized in Table 3.

Long-term treatment with PPIs has been associated in large observational studies with a variety of adverse events, including *Clostridium difficile* infection, bacterial gastroenteritis, bacterial overgrowth in the small intestine, pneumonia, chronic kidney disease, bone fracture, dementia, and myocardial infarction. However, confounding remains possible, and these studies cannot be used to determine causality. In a randomized, double-blind, placebo-controlled trial involving 17,598 participants, the administration of pantoprazole at a dose of 40 mg daily for 3 years was associated with a significant but small increase in the incidence of enteric infections (1.4% with pantoprazole vs. 1% with placebo) but no other adverse events.[39] To be prudent, PPIs should be used at the lowest dose that controls the patient's symptoms and esophageal inflammation, and the appropriateness of treatment should be periodically reevaluated (Table 3).[38]

ENDOSCOPIC TREATMENT

Endoscopic techniques are alternative approaches in the treatment of patients with GERD; they work by augmenting the antireflux barrier. Among these techniques are esophageal radiofrequency energy delivery (Stretta), which increases the thickness of the esophagogastric-junction musculature, and transoral incisionless fundoplication, which forms a partial wrap around the lower esophagus.[40] These procedures are options for patients who are not candidates for (or do not want to undergo) antireflux surgery or long-term medical treatment and have nonerosive reflux disease or low-grade erosive esophagitis, a hiatal hernia smaller than 3 cm, and have had a complete or partial response to treatment with PPIs. The experience level of the endoscopist and careful patient selection are critical to the success of these procedures. Concerns have been raised about the limited effect of endoscopic procedures on objective clinical end points (e.g., healing of erosive esophagitis and normalization of esophageal acid exposure).[41]

SURGICAL TREATMENT

Antireflux surgery and hiatal hernia repair (if a hernia is present) mechanically augment the antireflux barrier. Candidates for these procedures include persons who choose not to take PPIs or have had adverse effects with PPI therapy and those who have severe regurgitation, large hiatal hernia (>5 cm), persistent objective GERD despite taking PPIs twice daily, or symptoms

Table 2. Pharmacologic Agents for GERD.*

Class and Drug	Dose	Adverse Effects	Comment
Antacid			As needed for episodic heartburn; taken alone or in combination with a PPI
Aluminum and magnesium hydroxide, calcium carbonate, sodium citrate, sodium bicarbonate	Varied	Diarrhea, constipation, nausea, vomiting	
Alginate compounds	2 to 4 tablets administered orally four times daily	Constipation, diarrhea	
Mucosal protectant			Taken alone or in combination with a PPI
Sucralfate†	1 g administered orally two to four times daily	Constipation, diarrhea, nausea, vomiting, indigestion, gas	
Histamine$_2$-receptor antagonist			Taken alone for mild-to-moderate GERD and in combination with a PPI in refractory GERD
Cimetidine	400 mg administered orally twice daily	Headache, drowsiness, nausea	
Famotidine	20 mg administered orally twice daily	Constipation, dizziness, headache	
Nizatidine	150 mg administered orally twice daily	Drowsiness	
PPI‡			Most effective treatment; in patients with refractory GERD, there is no value of taking PPI more than twice daily§
Dexlansoprazole	30 to 60 mg administered orally once daily	Diarrhea, headache	
Esomeprazole	40 mg administered orally once daily¶	Bloating, constipation, nausea	
Lansoprazole	30 mg administered orally once daily¶	Diarrhea, nausea	
Omeprazole	20 mg administered orally once daily¶	Headache, nausea, vomiting	
Pantoprazole	40 mg administered orally once daily¶	Dizziness, headache, nausea	
Rabeprazole	20 mg administered orally once daily¶	Constipation, headache, gas	
Immediate-release omeprazole	20 mg administered orally once daily¶	Headache, nausea, diarrhea, gas	
TLESR reducer			May be used in combination with a PPI in patients with refractory GERD§
Baclofen‖	10 to 20 mg administered orally three times daily	Confusion, somnolence, drowsiness, dizziness, insomnia	
Prokinetic agent			Generally limited to patients who also have hypocontractile esophagus, gastroparesis, or both
Metoclopramide	5–10 mg administered orally every 6 to 8 hr	Drowsiness, agitation, insomnia, dizziness, fatigue, uncontrolled muscle movements	

* PPI denotes proton-pump inhibitors, and TLESR transient lower esophageal sphincter relaxation.
† American College of Gastroenterology guidelines suggest that, given limited data, sucralfate be used only for treatment of GERD-related symptoms during pregnancy.[20,26]
‡ Listed are adverse effects that have been associated predominantly with short-term treatment. Potential long-term adverse effects are described in the text.
§ Refractory GERD is defined as GERD that is partially responsive or nonresponsive to a stable double dose of PPI administered over a treatment period of at least 8 weeks in patients who had previous objective evidence of GERD.
¶ Administration twice daily has not been approved by the Food and Drug Administration. However, a double dose is commonly used in clinical practice in patients who did not have a response to once-daily treatment, and the definition of refractory GERD requires a lack of alleviation of symptoms with a twice-daily dose.
‖ Use of baclofen for the treatment of GERD has not been approved by the Food and Drug Administration.

Table 3. Recommendations for Use of PPIs.*

PPIs should be taken 30 to 60 min before a meal, preferably in the morning.

In patients who do not have a response when receiving PPI once daily, therapy should be optimized before doubling the dose:

- Confirm daily adherence to PPI regimen and correct timing of ingestion.
- If appropriate adherence and timing are confirmed, try splitting the standard dose, giving half before breakfast and half before dinner.
- Reemphasize lifestyle recommendations.

Patients with uncomplicated GERD who have a response to short-term PPI therapy should attempt to stop therapy; if symptoms recur, therapy should be reinitiated at the lowest dose that controls the symptoms.†

Long-term PPI therapy should be considered in patients with Barrett's esophagus and symptomatic GERD.

Dose levels that are used for long-term PPI therapy should be periodically evaluated so that the lowest effective PPI dose can be prescribed.

Long-term PPI use is not an indication for routine use of probiotics to prevent infections (e.g., gastroenteritis, *Clostridium difficile* colitis, and pneumonia); increased intake of calcium, vitamin B_{12}, or magnesium beyond the recommended dietary allowance (with the goal of preventing osteoporosis, anemia, or magnesium deficiency); or routine monitoring of bone mineral density or levels of serum creatinine, magnesium, or vitamin B_{12}.

Patients with erosive esophagitis or GERD-related complications (e.g., grade C or D erosive esophagitis, peptic stricture, or esophageal ulcer) should receive long-term PPI therapy for healing, symptom control, and prevention of recurrence.

In patients with nonerosive reflux disease and episodic heartburn, on-demand or intermittent therapy with a PPI can serve as an alternative to daily PPI treatment.

* Recommendations for long-term use of PPIs were adapted from best-practice advice from the American Gastroenterological Association.[38]
† In a patient whose symptoms recur with PPI tapering, an upper endoscopy should be performed if not already done; if findings on endoscopy are normal, reflux testing should be considered to distinguish GERD from functional or other esophageal disorders before committing the patient to long-term PPI use.

caused by weakly acidic reflux. Before undergoing antireflux surgery, patients should undergo an upper endoscopy and, if the endoscopy findings are normal, should undergo reflux testing; esophageal manometry and, possibly, a barium-swallow examination should be performed.

A recent systematic review that included both randomized, controlled trials and observational studies concluded that patients who underwent surgery had better short-term quality of life but no significant improvement in short-term or long-term symptom control as compared with medi-

cally treated patients.[42] However, the available evidence was noted to be at a high risk for bias. In a small, randomized trial involving patients with GERD and refractory heartburn, the percentage of patients who had a successful outcome (≥50% improvement in scores on GERD-related quality-of-life assessments at 1 year) was significantly higher with antireflux surgery (67%) than with medication (28%).[43] More than 25% of patients who undergo antireflux surgery receive PPI treatment during long-term follow-up (>5 years).[44] Complications of surgery include gas-bloat syndrome (an inability to properly vent the stomach, resulting in a bloating sensation), dysphagia, diarrhea, and relapse of heartburn. Preoperative predictors of a successful antireflux surgery outcome include abnormal esophageal exposure to acid, erosive esophagitis, typical GERD symptoms, the response to antireflux medications, hiatal hernia, absence of esophageal outflow obstruction, and a highly experienced surgeon.[44]

The magnetic sphincter augmentation system (LINX) is a small, flexible band of titanium beads with a magnetic core that is placed, by means of a laparoscope, around the end of the esophagus to augment the antireflux barrier. Its effects on acid regurgitation have been reported to be superior to PPIs.[45] Long-term information about the efficacy and safety of magnetic sphincter augmentation remains limited.

Roux-en-Y gastric bypass is the preferred surgical intervention for patients with class II obesity (BMI >35) and GERD, owing to a higher incidence of failure after surgical fundoplication in this patient population. The effect of surgery on the reduction of GERD symptoms and signs is related to the resultant weight loss.

AREAS OF UNCERTAINTY

The appropriate approach to managing GERD without alarm symptoms is a controversial issue. Although the initiation of empiric antireflux treatment is common, some experts propose that patients first undergo phenotyping by means of diagnostic tests so that therapy can be individualized. Whether treatment should be with a step-up approach (starting with the least potent antireflux medication and escalating treatment on the basis of the patient's response) or a step-down approach (starting with the most potent medication and deescalating therapy if the patient has a response) is unclear. Clinical criteria for endoscopic treatment or referral to antireflux surgery remain poorly defined. Establishing the true risks of long-term PPI treatment requires further study. More data are needed from randomized, controlled trials to determine the value of on-demand or intermittent treatment as compared with continued daily PPI treatment in a subset of patients with GERD; to compare outcomes of medical, endoscopic, and surgical therapies for GERD; and to guide the treatment of patients with refractory GERD or extraesophageal manifestations of GERD.

GUIDELINES

Guidelines regarding GERD have been published nationally and internationally, including U.S. guidelines for the diagnosis and overall management of GERD and the roles of endoscopy and surgical management.[26,44,46,47] Recommendations in this article are generally consistent with U.S. guidelines.

CONCLUSIONS AND RECOMMENDATIONS

The patient described in the vignette has symptoms consistent with GERD. The patient should first undergo an upper endoscopy because she meets the recommended screening criteria for possible Barrett's esophagus. If low-grade erosive esophagitis or Barrett's esophagus is observed, once-daily PPI taken 30 minutes before breakfast is recommended. Histamine$_2$-receptor antagonists should not be considered in this patient because her symptoms did not abate with a previous course of famotidine. If advanced erosive esophagitis or an esophageal ulcer is present, PPI taken twice daily (before breakfast and before dinner) for 2 months is recommended, along with a follow-up endoscopy to rule out Barrett's esophagus. If findings on the endoscopy are normal, I would start the patient on a standard dose of PPI for 2 months and reassess for symptom response (recognizing that other esophageal disorders, such as functional heartburn, remain on the differential diagnosis). The patient should also be counseled regarding weight loss, smoking cessation, avoidance of late-night meals and alcohol consumption, and stress reduction. If the patient chooses to forego treatment with medication, endoscopic treatment or antireflux surgery could be considered; however, if endoscopy was normal, these nonmedical interventions could be considered only if she is found to have abnormal esophageal exposure to acid while she is not taking antireflux medication.

Disclosure forms provided by the author are available with the full text of this article at NEJM.org.

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All orders, cancellations, and changes must be received in writing. E-mail your advertisement to us at ads@nejmcareercenter.org, or fax it to 1-781-895-1045 or 1-781-893-5003. We will contact you to confirm your order. Our closing date is typically the Friday 20 days prior to publication date; however, please consult the rate card online at **nejmcareercenter.org** or contact the Classified Advertising Department at 1-800-635-6991. Be sure to tell us the classification heading you would like your ad to appear under (see listings above). If no classification is offered, we will determine the most appropriate classification. Cancellations must be made 20 days prior to publication date. Send all advertisements to the address listed below.

Contact Information

Classified Advertising
The New England Journal of Medicine
860 Winter Street, Waltham, MA 02451-1412

E-mail: ads@nejmcareercenter.org
Fax: 1-781-895-1045
Fax: 1-781-893-5003
Phone: 1-800-635-6991
Phone: 1-781-893-3800
Website: **nejmcareercenter.org**

How to Calculate the Cost of Your Ad

We define a word as one or more letters bound by spaces. Following are some typical examples:

Bradley S. Smith III, MD..... = 5 words
Send CV ..... = 2 words
December 10, 2007 ..... = 3 words
617-555-1234 ..... = 1 word
Obstetrician/Gynecologist ... = 1 word
A ..... = 1 word
Dalton, MD 01622 ..... = 3 words

As a further example, here is a typical ad and how the pricing for each insertion is calculated:

MEDICAL DIRECTOR — A dynamic, growth-oriented home health care company is looking for a full-time Medical Director in greater New York. Ideal candidate should be board certified in internal medicine with subspecialties in oncology or gastroenterology. Willing to visit patients at home. Good verbal and written skills required. Attractive salary and benefits. Send CV to: E-mail address.

This advertisement is 56 words. At $10.25 per word, it equals $574.00. This ad would be placed under the Chiefs/Directors/ Department Heads classification.

Classified Ads Online

Advertisers may choose to have their classified line and display advertisements placed on NEJM CareerCenter for a fee. The web fee for line ads is $125.00 per issue per advertisement and $210.00 per issue per advertisement for display ads. The ads will run online two weeks prior to their appearance in print and one week after. For online-only recruitment advertising, please visit nejmcareercenter.org for more information, or call 1-800-635-6991.

Policy on Recruitment Ads

All advertisements for employment must be non-discriminatory and comply with all applicable laws and regulations. Ads that discriminate against applicants based on sex, age, race, religion, marital status or physical handicap will not be accepted. Although the *New England Journal of Medicine* believes the classified advertisements published within these pages to be from reputable sources, NEJM does not investigate the offers made and assumes no responsibility concerning them. NEJM strives for complete accuracy when entering classified advertisements; however, NEJM cannot accept responsibility for typographical errors should they occur.

Classified Ad Deadlines

Issue	Closing Date
December 15	November 23
December 22	December 2
December 29	December 8
January 5	December 14

Cardiology

NONINVASIVE CARDIOLOGIST NEEDED — Noninvasive cardiologist to join a large group of 20 cardiologists in northern New Jersey. Excellent salary and benefit package. Please e-mail CV to: terri.urgo@heartandvascularnj.com. We are a well-established multispecialty medical group that is rapidly expanding. www.hvamedicalgroup.com

CLINICAL CARDIOLOGIST OPPORTUNITY: NORTHERN NJ — Excellent opportunity for a BC/BE non-invasive to join a well-established Cardiology practice. Competitive salary, full benefits, balanced call schedule. Partnership or Employment track available. Please forward CV and cover letter to: njcardiologist@gmail.com

FOUR-PHYSICIAN PRIVATE PRACTICE GROUP ON LONG ISLAND — Seeking BC/BE noninvasive Cardiologist to join a well-established successful team. Competitive compensation with built-in salary increases yearly, Partnership track, four and one half day work-week, four weeks' vacation, 401K plan, full medical benefits and CME allowance. New doctor will do all cardiac modalities including echo, stress echo, vascular, nuclear cardiology, TEE, and PPM follow ups. Will train vascular. Our group includes an EP and an affiliated interventionalist. Offices located in Smithtown and Bay Shore. One hour from NYC. Hospital privileges in Good Samaritan, St. Catherine of Sienna, and South Shore University Hospital (Southside). Hospitals have full cardiac services including cath labs, EP labs, open heart programs, and structural programs (TAVR, Mitraclip, watchman). Access to NYC tertiary programs (transplant). Long Island is a great place to live, work, and raise a family. Beautiful beaches, restaurants, parks with easy access to all of New England. Our group prides itself upon its commitment to balancing work and family life for all its physicians and employees. Will consider part-time employment. Please e-mail resume to: Suffolkdoctor3@aol.com

CARDIOLOGIST, F/T, E. SETAUKET, NY — Board Certified, NYS License. Vascular interpretation preferred. Echo cardiogram interpretation preferred. Nuclear certification preferred. Benefits, PTO, 401K, Competitive Salary. Apply to: Denise.fellows@stonybrookmedicine.edu

Gastroenterology

PRESTIGIOUS GARDEN CITY GASTROENTEROLOGY PRACTICE — Located in Nassau County, is looking to hire a P/T or F/T Gastroenterologist. There is no hospital call; excellent benefits, salary. Please e-mail your CV to: drchrisdemetriou@aol.com; or fax it to: 866-706-0812.

Hematology-Oncology

MEDICAL ONCOLOGIST — Serve as care team leader, providing daily evaluation and management for oncology patients at hospital and in on/off-site clinics, outpatient and inpatient. Assess and provide medical care. Accept and coordinate specialist consults. Provide consultation services. Collaborate with case and utilization management and social services to identify discharge needs and non-hospital resources. Follow-up and consult with primary physicians. Communicate with referring physicians. Properly prepare admin documentation with electronic medical record. Mentor students, interns, residents, and medical staff. Participate in admin activities. Full-time with on-call and weekend duties. Provides services in Hastings and Grand Island. Requires MD or DO or equivalent, residency in Internal Medicine, fellowship in Hematology/Medical Oncology, BC or BE in Medical Oncology, and Nebraska medical license. Contact: Brad Lindblad, Mary Lanning Healthcare, 715 North St Joseph Avenue, Hastings, NE 68901 or: blindblad@marylanning.org

Hospitalist

PHYSICIAN (NOCTURNIST) — Columbia St. Mary's Hospital Milwaukee, Inc., seeks a Physician (Nocturnist) to provide services in Milwaukee and Mequon, WI, including attending to medical needs of patients who are staying in the hospital overnight as needed, admitting patients to the hospital for care, planning and implementing patient treatment programs, participating in rounds, and assisting in training medical students/residents in patient care. Send resume to Nancy Christensen, Physician Recruiter, Ascension Wisconsin at: nancy.christensen@ascension.org

Infectious Disease

EXCELLENT OPPORTUNITY IN ATLANTA SUBURB FOR BC/BE PHYSICIAN — To join a unique, well-established, eight-doctor, four-location ID Practice with ACHC Accredited Office Infusion Center including a state-of-the-art clean room with staff pharmacist, as well as comprehensive wound care provided by CWCN's. Please e-mail CV to: atlanta.docs@gmail.com

Rheumatology

RHEUMATOLOGIST PHYSICIAN TO JOIN A LARGE MULTISPECIALTY GROUP IN NORTHERN NEW JERSEY — Excellent salary and benefits package. Please e-mail CV to: annu.bikkani@hvamedicalgroup.com

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UNIVERSITY of MARYLAND
SCHOOL OF MEDICINE

Per Diem Hospitalists (3-309-1122)

The Division of General Internal Medicine at the University of Maryland School of Medicine is recruiting part time internists to serve as per diem hospitalists at the University of Maryland Medical Center Downtown Campus. Clinical responsibilities include participation in our faculty group practice with more than 30 other hospitalists. This position will also provide inpatient attending on our general medical service as well as coverage on our inpatient hospitalist teams including coverage of, but not limited to, medical transplant patients, general internal medicine patients on nonteaching services, medical consultations, transplant medicine consultations, and co-management of surgical services. Candidates will be provided a part time faculty appointment through the University of Maryland School of Medicine. Expected faculty rank is Assistant Professor or higher, however, final rank will be commensurate with the selected candidate's qualifications and experience.

UMMC is a referral center for the most critically ill patients in the Mid-Atlantic region. We are proud to have trained generations of new physicians and offer the exciting opportunity to work with teams of experts dedicated to ensuring high quality healthcare for patients from the Baltimore community as well as the Mid-Atlantic region.

Candidates must be board certified/eligible in internal medicine and eligible for an unrestricted license in the State of Maryland. A medical degree from a recognized accredited domestic university (or foreign equivalent), a strong commitment to patient care and teaching, and the ability to work well in a team setting are also required.

Qualified candidates should apply online at the following link:
https://umb.taleo.net/careersection/jobdetail.ftl?job=220000KQ&lang=en

When applying, please submit a cover letter, CV and names of four references. You are also invited to include a perspective statement on equity, diversity, inclusion and civility.

UMB is an equal opportunity/affirmative action employer. All qualified applicants will receive consideration for employment without regard to sex, gender identity, sexual orientation, race, color, religion, national origin, disability, protected Veteran status, age, or any other characteristic protected by law or policy. We value diversity and how it enriches our academic and scientific community and strive toward cultivating an inclusive environment that supports all employees.

If you need a reasonable accommodation for a disability, for any part of the recruitment process, please contact us at HRJobs@umaryland.edu and let us know the nature of your request and your contact information. Please note that only inquiries concerning a request for reasonable accommodation will be responded to from this email address.

For additional questions after application, please email
facultypostings@som.umaryland.edu

SAN JUAN REGIONAL MEDICAL CENTER

Physician Opportunities

- Interventional Cardiology
- Family Medicine out-patient
- Gastroenterology
- Hospitalist
- Neurology
- Psychiatry
- Nephrology/IM

Advanced Practice Opportunities

- Emergency Medicine APP
- CRNA
- General Surgery
- Hospitalist AGACNP
- Psychiatric Mental Health Nurse Practitioner
- Pain Management

Enjoy a rewarding practice and join a hospital-employed group representing a wide range of specialties. San Juan Regional Medical Center is a non-profit, community governed facility serving the Four Corners area of New Mexico, Arizona, Colorado and Utah.

Farmington offers a temperate, four season climate with abundant outdoor recreational activities and easy access to National Parks, monuments, and other historic and cultural sites.

Contact Terri Smith at 888.282.6591 or 505.609.6011
tsmith@sjrmc.net | sanjuanregional.com | sjrmcdocs.com

NEJM CareerCenter

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DOWNSTATE HEALTH SCIENCES UNIVERSITY
THE STATE UNIVERSITY OF NEW YORK

SUNY Downstate Health Sciences University is seeking a full-time Hospitalist/Clinical Assistant Professor (HS). The successful candidate will:

Description:

- Admits adult "unassigned" patients (without a private attending in University Hospital of Brooklyn) from the Emergency Department, MICU and CCU according to the Hospitalist service schedules.
- Diagnoses and treats different medical conditions in the adult hospitalized patients on their service.
- Work in a team with the nursing staff and social worker to make appropriate discharge arrangements for the patients admitted to their service.
- Provides consultations for preoperative patients and for patients.
- Functions as the Teaching Attending for the Medical Resident/Student Team for approximately eight months a year. Set and communicates to the team expected performance standards; evaluates and individually discusses the team residents' and students' midmonth and end of each month performance: mentors second year students in the history taking and physical exam; formally evaluates third year medical students' bedside performance; teaches courses to the Medical Residents and Students.
- Participates in the Hospitalist Service meetings as scheduled in different administrative tasks; Performance Improvement, Health Management, Medicine Department Operations, HIV Committee, Palliative Care Working Group etc. distributed by the Director.

Required Qualifications;

- MD Degree or Equivalent
- Full training in Internal Medicine
- New York State license
- Board Certified in Internal Medicine
- 1-year of residency teaching in an academic setting

COVID-19 Vaccination Requirement: An approved COVID-19 vaccination.

Executive Order: Pursuant to Executive Order 161, no State entity, as defined by the Executive Order, is permitted to ask, or mandate, in any form, that an applicant for employment provide his or her current compensation, or any prior compensation history, until such time as the applicant is extended a conditional offer of employment with compensation. If such information has been requested from you before such time, please contact the Governor's Office of Employee Relations at (518) 474-6988 or via email at info@goer.ny.gov.

Equal Employment Opportunity Statement: SUNY Downstate Health Sciences University is an affirmative action, equal opportunity employer and does not discriminate on the basis of race, color, national origin, religion, creed, age, disability, sex, gender identity or expression, sexual orientation, familial status, pregnancy, predisposing genetic characteristics, military status, domestic violence victim status, criminal conviction, and all other protected classes under federal or state laws. Women, minorities, veterans, individuals with disabilities and members of underrepresented groups are encouraged to apply.

If you are an individual with a disability and need a reasonable accommodation for any part of the application process, or in order to perform the essential functions of a position, please contact Human Resources at 718-270-3025.

Apply to: Dr. Rovie Mesola
Director Hospital Medicine, Department of Medicine, 450 Clarkson Ave, MSC 50, Brooklyn, NY 11203

Email: Rovie.mesola@downstate.edu

Salary: Commensurate with experience.

Starting Date: ASAP

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Optum

RELIANT MEDICAL GROUP

Internal Medicine Division

Job Title: Hospital Medicine -Sandoval Regional Medical Center (SRMC) Section Chief

The University of New Mexico, Health Sciences Center, Department of Internal Medicine seeks an experienced hospitalist leader to lead the Division of Hospital Medicine and work at Sandoval Regional Medical Center in Rio Rancho, New Mexico, adjacent to Albuquerque. This position is open rank and open track. Collegial atmospheres in a physician run program and career development are highlights of these positions. We offer an excellent benefit and compensation plan, and a rich quality of life in the high desert of New Mexico. Salary and rank will be commensurate with experience and education. The candidate will have a proven record of accomplishment in leadership, clinical service, patient care, and education. **Minimum Qualifications: 1)** must be board certified or board eligible in Internal Medicine or Family Medicine by date of hire; **2)** able to hold a valid NM state license; and **3)** must be eligible to work in US. **Preferred Qualifications: 1)** experience/interest in clinical service; **2)** experience in strategic planning & negotiations; **3)** experience in recruitment and hiring; **4)** A demonstrated commitment to diversity, equity, inclusion, and student success, as well as working with broadly diverse communities. This position may be subject to a criminal records screening in accordance with New Mexico law.

For best consideration apply by 10/12/22; however, the position is open until filled.

For complete description and application requirements for Posting Requisition Req22017

Please see the UNM jobs application system at: https://unmjobs.unm.edu. A complete application must contain a cover letter and CV.

Inquiries may be directed to Kendall Rogers, MD Division Chief of Hospital Medicine, Department of Internal Medicine, University of New Mexico (KRogers@salud.unm.edu)

UNM's confidential policy ("Disclosure of Information about Candidates for Employment," UNM Board of Regents' Policy Manual 6.7), which includes information about public disclosure of documents submitted by applicants, is located at https://policy.unm.edu/regents-policies/section-6/6-7.html

The University of New Mexico is an Equal Employment Opportunity/Affirmative Action Employer and Educator.

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Atrius Health, an innovative healthcare leader, delivers an effective system of connected care for adult and pediatric patients at more than 30 medical practice locations in eastern Massachusetts.

At Atrius Health we work together to develop and share best practices to coordinate and improve the care delivered in our communities. Our long-term relationships with prestigious medical and nursing schools, hospitals and universities, allows us to sponsor teaching programs across the health care profession.

Our physicians enjoy close clinical relationships, superior staffing resources, minimal call, a fully integrated electronic medical record, excellent salaries, and an exceptional benefits package.

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Internal Medicine • Nephrology • Neurology • Non-invasive Cardiology
OB/GYN • Optometry • Pediatrics • Pulmonology • Psychiatry • Physiatry
Reproductive Endocrinology • Rheumatology • Urgent Care • Urology
Weight and Lifestyle Management

Apply at **atriushealthproviders.org**, send confidential CV to:
Brenda Reed, 275 Grove Street, Suite 2-300, Newton, MA 02466
or email: **Physician_Recruitment@atriushealth.org**

Physician Opportunities in a Variety of Specialties

Northern and Central California

The Permanente Medical Group, Inc. (TPMG) is one of the largest medical groups in the nation with over 9,000 physicians, 22 medical centers, numerous clinics throughout Northern and Central California, and an over 75-year tradition of providing quality medical care.

EXTRAORDINARY BENEFITS:

- Competitive compensation and benefits package, including comprehensive medical and dental
- Moving allowance and home loan assistance - up to $250,000 (approval required)
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- Shareholder track
- Three retirement plans, including pension

For more information about current openings, forward your CV to: MDRecruitment.tpmg@kp.org

Call: 800-777-4912

Visit: tpmg.permanente.org/careers

A FEW REASONS TO CONSIDER A PRACTICE WITH TPMG:

- **Work-life balance** focused practice, including flexible schedules and unmatched practice support.
- We can focus on providing excellent patient care **without managing overhead and billing.** No RVUs!
- We demonstrate our commitment to a culture of **equity, inclusion, and diversity** by hiring physicians that reflect and celebrate the diversity of people and cultures. We practice in an environment with patients at the center and deliver culturally responsive and compassionate care to our member populations.
- Multi-specialty **collaboration** with a mission-driven integrated health care delivery model.
- An **outstanding electronic medical record system** that allows flexibility in patient management.
- We have a very rich and comprehensive **Physician Health & Wellness Program**.
- We are **Physician-led** and develop our own leaders.
- **Professional development** opportunities in teaching, research, mentorship, physician leadership, and community service.

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