QUALITY REVIEW: PART I

Get with the Guidelines: The Importance of Quality Improvement from a Resident’s Perspective
Andres Borja, MD

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In a rapidly changing health care system, primary care physicians have to become leaders and stay ahead of change. We are expected to see the same number of patients in less time and with less reimbursement, making quality measures harder to achieve. With new models of care developing rapidly, it is up to us to improve our service and keep up with the times. In this respect, quality improvement projects benefit our practice.

Our patients are complex. Although we do not always have time to address all problems in one patient visit, we cannot compromise patient care due to the pressures of time. It is important to use guidelines and screening and diagnostic tools in the appropriate setting. Still, guidelines change rapidly, and we have to adjust our practice accordingly to provide excellent patient care and improve satisfaction.

Quality problems include underuse, overuse, and misuse of services. Reviewing charts and using statistical analysis to interpret our data will help improve our practices. It is important then to keep developing projects in our practices to improve patient care. The question then is: How do we develop these projects? The first requirement is to follow our passion—choose projects that you enjoy. Since I have a special interest in pulmonary disease, my project involved the most common pulmonary diseases in the primary care setting: chronic obstructive pulmonary disease (COPD) and asthma. Research the latest guidelines, and review your charts to evaluate your performance in that specific area. Each of us has a unique approach to addressing clinical problems; once you find your solution, implement it—and don’t forget to evaluate the improvement.

My project included a review of all the patients seen during the last six months of 2011 by the residents at the Mercy Care Internal Medicine Clinic of St. Joseph’s Hospital & Medical Center. During my review, I

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QUALITY REVIEW: PART II

The Quality Journey
Daniel G. Tobin, MD, FACP

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Many define quality in medicine as practicing to the fullest extent of current professional knowledge, which is best exemplified by familiarity with randomized controlled trials (RCTs). Yet the RCT as a gold standard is a very recent phenomenon, and facility with available RCTs is a poor marker of quality.

The first RCT was published in 1948 by the *British Medical Journal*—a landmark study titled “Streptomycin Treatment of Pulmonary Tuberculosis.”1 By 1966, approximately 100 RCTs were published each year.2 The physician of 1960 could truly have read every RCT ever published!

Fast-forward to 1995, when approximately 10,000 randomized controlled trials were published annually; as of March 2012, the Cochrane Library lists more than 670,000 such publications in its Registry of Controlled Trials.3 The most brilliant contemporary physician cannot hope to master such a daunting database. Does this imply that we are destined to provide deficient care?

Clearly, there is more to medical quality than simple knowledge of the facts. The American College of Medical Quality defines medical quality as “the degree to which health care systems, services, and supplies for individuals and populations increase the likelihood for positive health outcomes and are consistent with current professional knowledge.” The focus on processes and systems is critical to quality improvement (QI) and suggests that QI is best conceived of and taught as a verb (i.e. a process) instead of a noun.

The Accreditation Council for Graduate Medical Education (ACGME) has attempted to integrate QI into postgraduate medical education through its Practice-Based Learning and Improvement (PBLI) and Systems-Based Practice (SBP) core competencies—both of which are quality improvement concepts. Although such concepts can be taught through didactic (e.g. lectures, journal clubs) and applied (e.g. morning report, morbidity and mortality conferences) methods, the resident-driven QI project remains the cornerstone of experiential QI teaching. Many permutations of QI projects have been used successfully, but effective projects all share a fundamental philosophy—system analysis and improvement.

Paul Batalden, MD, famously noted that “every system is perfectly designed to achieve exactly the results it gets”—the so-called first law of health care improvement. By extension, if the outcomes achieved are not the outcomes desired, the failure likely rests with the process. Yet many trainees have little understanding of the processes at play in their clinical microsystem. Rather than troubleshoot every inefficiency, trainees with busy schedules and infrequent episodes in the outpatient clinic develop expertise in the art of the workaround. A continued on page 11
Let’s Not Waste a Crisis
Ann B. Nattinger, MD, MPH

**Given the high financial stakes and the fact that the makeup of the RUC favors historical inequities in relative compensation, expecting the compensation situation to self-correct is pure wishful thinking.**

Almost every year, the head of the hospital system connected with my medical school articulates the current crisis. He is effective in its description—often some combination of impending payment cuts, payor mix shifts, and/or new competition from a boutique hospital (heart, orthopedics, cancer, etc.), which soon will be siphoning off the few cases on which the hospital makes its annual operating margin. And he is especially effective in using the crisis to produce results that improve the efficiency of the hospital system (e.g., lesser increases in compensation, lower cost procedure trays, and greater productivity expectations per unit of support). The crisis of the year is not wasted, which is one of the reasons this hospital system has a positive operating margin while several hospitals in the area have closed or merged. I continue to marvel during each budget season at the effectiveness of this leadership strategy.

I have learned some important lessons from observing this strategy. One is about communication. When advocating for change (whether locally or nationally), it is critical to communicate in relatively simple and unambiguous terms a compelling need for change (the crisis). We in SGIM comprise a Society full of thoughtful and critical thinkers, and I think we are sometimes guilty of wanting to explain all the nuances in such a way that our audiences may hear those nuances more than the key message. While it is a good thing that we understand the incredible complexity of our field, for communication outside our Society we need to be clear and stay on message.

SGIM members are well aware that general internal medicine (GIM) is facing a crisis. Shortages of generalist physicians (ambulatory and inpatient) already exist, in GIM as well as other fields. The venerable New York Times journal of medicine says that 60 million patients are without primary care doctors, and anyone who has tried to hire GIM hospital medicine specialists can attest to the shortage of inpatient-oriented internists. This shortage is likely to worsen as the changes included in the Health Care Reform legislation are phased in, thus raising the demand for primary and secondary care—areas that are the bailiwick of GIM.

Numerous articles, most concentrating on primary care, have been written to explain the lack of sufficient physicians entering generalist fields. While many explanations have been put forth, in my view they reduce to two basic problems. The first is compensation, and the second is the professional environment associated with generalist careers.

The compensation of generalist specialists per unit of clinical work is too far inferior to the compensation for other specialists to attract generalists in the numbers needed. Much of relative physician compensation is set by the Relative Value Scale Update Committee, also called the RUC, a committee consisting mainly of representatives of professional societies. This committee is dominated by non-generalist fields, with only five of 29 RUC members from primary care. Given the high financial stakes and the fact that the makeup of the RUC favors historical inequities in relative compensation, expecting the compensation situation to self-correct is pure wishful thinking. I am not clear whether physicians overall are paid too much, as some have concluded. As the economist Uwe Reinhardt has pointed out, US college graduates bright enough to enter medical school would be able to secure other high-paying jobs if careers in medicine became less attractive, and if the compensation of all physicians were to decline by 20%, total national health spending would be reduced by only 2%. What I am sure of is that the inequality in incomes between generalist specialists and most other specialists has led many top-notch early-career physicians to choose more lucrative careers.

I suspect that some general internists who concentrate on inpatient medicine are thinking that my continued on page 14
As physicians, we are trained to contemplate the risks versus benefits of almost all encounters. It’s second nature; it’s engraved. It’s as if we cannot function without debating the risks, benefits, and alternatives of every situation we encounter.

However, how often do you find yourself pondering the pharmaceutical company-sponsored pizza or pasta you had for lunch? And that it will, inevitably, influence your practice, affect your credentials, and comprise your integrity? In residency, our salaries are disproportionate to our debt. We look for as many places to cut costs as possible, and traditionally, lunch has been one of them. Just keep in mind that there is no such thing as a “free lunch.”

How does this work? Accessibility is the key. Pharmaceutical representatives are notorious for extracting data collected by the hospital and networking with nurses to identify prescribing practices. For instant networking, representatives can navigate through cafepharma.com, which is a website dedicated to pharmaceutical and medical sales professionals.

Back to that innocent pharmaceutical company-sponsored lunch. If you sign your name on their attendance document, you are guaranteed a blog on their infamous networking website, cafepharma.com. Keep in mind that your patients can visit this website. As an extrapolation, your patients are now privy to your affiliations and how they may influence your prescribing practices. Not only do you lose your credibility, but more importantly you lose your patients’ trust in you.

How are pharmaceutical companies regulated? The Corporate Integrity Agreement, also known as the CIA, protects the integrity of the Department of Health and Human Service programs. This is a federal act that sanctions companies that violate marketing rules. The CIA is a restrictive agreement that is imposed when misconduct is discovered on behalf of pharmaceutical companies.1

“Physicians who accept speaking fees and meals from pharmaceutical companies are revealed on the Web...drawing attention to such financial benefits.”2 The Physician Payment Sunshine Act requires manufacturers and group purchasing organizations to report all physician payments over a cumulative value of $100. This information is also available to your patients on the Web.

How can you limit this access? In teaching institutions, we can restrict the access that pharmaceutical companies have to our department. In other words, they can be prohibited from extracting information from the program coordinator, or vice versa the program coordinator can withhold information. Additionally, representatives can be excluded geographically; access to the actual conference room can be restricted. Furthermore, you can choose to remain anonymous or offer to pay for your own lunch. As I stated before, there is no such thing as a “free lunch.”

I believe that the conflict between medical professionals and the pharmaceutical industry will be everlasting. When you expose yourself to the pharmaceutical industry, any gift large or small can influence your decision making, which can conflict with the patient care that you provide. Therefore, to refrain from compromising your integrity, credibility, and your patients’ trust in you, you must remain “pharm free.”

References

FROM THE EDITOR

Medical Education: To Pharma or Not?

Priya Radhakrishnan, MD

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The decades long debate on the relationship between the pharmaceutical industry and physicians continues with renewed interest due to the Physician Payment Sunshine Act (PPSA). The restrictions have significantly increased, with the American Medical Association Council on Ethical and Judicial Affairs stating that “when possible” continuing medical education (CME) activities should be developed without industry support and without the participation of teachers or program planners who continued on page 5

FROM THE EDITOR

Medical Education: To Pharma or Not?

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In recent years, there has been a lot of controversy around the presence of pharmaceutical companies in residency training programs and their impact on residents’ behaviors and prescribing habits. The dilemma remains present, and the solution is not simple.

Lunch is the time we have for our educational conferences; it is not easy to plan, organize, and schedule these events, and attendance is important and required by the American Council on Graduate Medical Education (ACGME) during residency. With increasing GME budget cuts, most departments are no longer able to provide food for conferences. However, providing free lunches significantly increases attendance (OR 1.26-1.64)—not to mention, punctuality. We all know our cafeteria has the longest lines exactly at the time we are rushing from rounds to conference; if we had lunch provided, we would be able to pick it up just before entering our conference.

We are all well aware of the data that argue against the free lunch and its potential impact on prescribing habits and preferences. However, are we not bombarded by pharmaceutical ads on television that condition us to remember certain medications that help our patients not more likely to prescribe those medications that help our patients when they cannot afford them?

We have intensive curricula in evidence-based medicine that help us develop our critical-thinking skills during residency. Having the ability to use these skills in a supervised environment is the best test of our ability to sort the fluff from the data. Should having a five-minute lecture by pharmaceutical companies, followed by a guided discussion between residents and attendings, not be a part of our educational experience? Residency is considered a safe environment, where our decisions are backed up or corrected by our faculty. This will ensure that we are able to analyze the relevant clinical data and not be swayed by the armies of pharmaceutical reps that we see in practice today.

A big concern is the potential for prescribing bias. What is not considered is the fact that our prescribing patterns are pre-determined by hospital and clinic formularies. Our prescriptions are routinely changed by the pharmacy based on their costs to the hospital system. We are already biased by the brand names the hospital buys. Finally, the medication samples ensure that patients who are not able to afford medications can try new therapies that would otherwise be out of reach. While the combination of long-acting beta agonist and steroid is the cornerstone of COPD therapy, it is not unusual for patients to have difficulty managing the costs of their treatment. In real life, are we not more likely to prescribe those medications that help our patients when they cannot afford them?

In conclusion, we would like to submit that the answer is complex; however, we should consider that residents will one day interact regularly with pharmaceutical companies. Residency is the time to train, practice, learn, and assimilate the experiences that will determine our practicing patterns. Like lifelong learning, it is vital that we learn good behaviors during residency and not shy away from real life experiences.

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have financial interests in the subject matter.

Should pharma representatives be allowed to interact with residents and students? Are the regulations too rigid? We reviewed the data on the relationship between industry and physicians in a recent debate. Interestingly, the views of our residents reflect the political reality of our nation, with several taking exception to the role of government in their activities while others supported the need for regulation.

Like it or not, the proposed legislation requires transparency in reporting any gifts over $100—the data will be available on a public website. Interestingly, the “doctor dinners” sans CME credit still fall in the purview of the proposed legislation and will be reportable.

We have two opposing views regarding the role of industry in medical education. Weigh in and write to us.

Suggested Reading
https://www.federalregister.gov/articles
As I completed my internal medicine training in 1999, the Institute of Medicine (IOM) published To Err Is Human. The IOM claimed that up to 98,000 lives are lost yearly from medical errors. This landmark document helped spur the implementation of health information technology (HIT). The assumption has been that with computer support, we can improve safety and quality. The federal government has accelerated HIT adoption further with large financial incentives in its “Meaningful Use” program, which extends into 2014.

The complexity of modern HIT systems and a shortened timeline for deployment have created the potential for significant errors in design and implementation. As a result, a significant risk to patients has been created by the very systems intended to improve safety. Errors related to HIT are growing, but the scope of the problem remains difficult to measure.

Recently, the IOM summarized the impact of HIT on patient safety and made recommendations to limit harm. In 2011, it published “Health IT and Patient Safety: Building Safer Systems for Better Care.” This publication called for a greater effort in ensuring that safety is prioritized in the design, implementation, and maintenance of HIT systems. One committee member, Richard Cook, MD, even recommended that HIT systems be regulated by the Food and Drug Administration.

In the coming years, we will see a growing focus on HIT safety. Improvement efforts will be the task of many parties, including IT departments, vendors, and governmental agencies. The focus will be on usability, interoperability, and improving the ease of implementing and maintaining systems.

As physicians we should be reminded that we have the ability to improve the safety of HIT now. We can strive to master rather than simply learn the basic operations of these systems. With a deeper understanding of how they function, we can identify opportunities for improvement and share them with developers. We bring a unique understanding of HIT behavior at the point of care.

We should redouble our efforts in training physicians to use electronic medical records (EMRs). Physicians spend many hours honing their understanding of pathophysiology and pharmacology. They apprentice and seek certification to perform invasive medical procedures. The same rigor should apply to mastering the operations of a modern day EMR.

The rest of this discussion will focus on lessons learned at our institution as we taught more than 1,000 physicians to use the EMR. “Pre-live” training was very important; however, instructors should understand that learners can absorb a limited amount of information before fatigue sets in. Content should provide a broad introduction to the software interface along with an overview of the system’s range and scope. This will help learners appreciate how the EMR will impact their workflows and hopefully impress on them the importance of future training efforts. Providing access to the system immediately after training can allow users to start building templates and preference lists. These are high yield activities that can empower learners to prepare. “Playground environments” can be used to practice, but understand that very few will have the time to “play.” We found that some early adopters spent time building templates and preference lists and also spent time in the playground. In addition, they often shared their templates and preference lists with colleagues.

As important as pre-live training is, “post-live” training and education is more critical to organizational success. At this point, users have more insightful questions and are able to learn advanced functions. They will also need continued training as enhancements are implemented. With “Meaningful Use,” we should expect an aggressive schedule of updates.

One of the greatest challenges to training remains time. Physicians simply do not have the luxury of spending hours in training. They also cannot travel repeatedly to computer training labs. They need training that is delivered to them in a time-efficient manner. The information needs to be customized to their needs and should be presented in a manner that allows them to apply what is learned easily.

Tip sheets are commonly used to provide ongoing training. They are easy to produce and disseminate over e-mail. Unfortunately, applying information from these documents requires a significant effort. Many of our physicians have fatigued from the barrage of tip sheets. The value of tip sheets has been lower than hoped.

One-on-one training is resource-intensive, but given the cost of an inefficient physician, it may be well worth the investment. Our department has hired an EMR trainer who is available to provide shoulder-to-shoulder support for physicians. This concierge training has been invaluable for those who struggle the most. Physician trainers, if available, can teach colleagues to use the EMR very efficiently. They can target the highest-value topics and provide examples that resonate with physician learners.

Short video lessons that demonstrate...
As practitioners of general medicine and primary care, we need to continue to evaluate and improve these issues, especially given the trend toward fragmentation of care between inpatient and outpatient medicine.
Medicare was created in 1966 to pay for the care of the nation’s senior citizens. Congress reluctantly and temporarily decided Medicare would pay teaching hospitals for physician training. As of now, “temporarily” has lasted 46 years.

Originally, Medicare paid for “allowable costs,” which included the costs of graduate medical education (GME) programs. However, in 1983 when Congress enacted the Prospective Payment System (PPS), which pays a fixed amount per hospitalization for clinical care based on the patient’s diagnosis-related group (DRG), it had to decide whether it would continue having Medicare pay for GME. It chose to continue paying, using a two-part funding mechanism for teaching hospitals. Direct GME (DGME) payments help hospitals pay the salaries of residents, teaching faculty, and support staff. DGME is the product of three numbers: a per resident amount that varies by hospital, adjusted annually for inflation; the number of residents in the hospital (capped for each hospital at 1997 levels); and the fraction of discharges from the hospital that are Medicare beneficiaries. These teaching hospitals receive between 15% and 43% IME add-on to their DRG payments.

When Congress created the IME payment, it deliberately set the IME adjustment at 11.6% (for each 10% change in the IRB ratio)—twice what economists believed it should be, so as not to risk damaging the financial stability of teaching hospitals. Since 1983, Congress has whittled the IME adjustment down to 5.5%. This means that a hospital with an IRB ratio of 0.6 gets IME payments 5.5% higher than one with a ratio of 0.5. The Medicare Payment Advisory Commission (MedPAC) has argued that this adjustment is still more than twice what is justified by comparing costs at teaching and non-teaching hospitals and should be decreased. This would mean reducing IME payments, harming hospitals that rely heavily on this funding stream.

GME funding is financed by the Medicare payroll tax. It is not vulnerable to the annual Congressional appropriations process. It can be changed only if Congress changes the laws authorizing Medicare.

While DGME payments clearly address the costs of training, IME payments are intended to address the increased severity of illness of patients cared for at teaching hospitals, compared to those cared for at non-teaching hospitals, as well as the inefficiency costs resulting from having trainees. This means that proposals to redirect the GME funding stream to training programs instead of hospitals (as many have proposed) would likely only apply to DGME money. IME money would continue to stay with hospitals.

Historically, training programs that have trainees in settings outside the hospital lose funding for the time trainees are there, which discourages community-based training. The Affordable Care Act allows hospitals to count training time spent outside the hospital in GME calculations, but more work is required to strengthen these provisions.

SGIM works with other organizations to support GME funding and improve how funding is allocated. We also advocate for non-Medicare GME funding including Title VII. Our next education policy article will cover that.
A 62-year-old female is transferred to our hospital from an outside facility for management of a subarachnoid hemorrhage (SAH) diagnosed by computed tomography (CT) scan of the head. She is afebrile, hemodynamically stable with intact consciousness, and has essentially normal blood tests on presentation. Her past medical history includes depression. She is a physically active home-maker, denies ever smoking, and does not report a family history of cardiovascular disease.

Non-traumatic/spontaneous hemorrhages are frequently seen, usually occurring in the setting of a ruptured cerebral aneurysm or arteriovenous malformation (AVM). About 80% of cases of SAH result from ruptured berry (circle of Willis) saccular aneurysms. Subarachnoid hemorrhage may be seen commonly in head trauma. The history and neurologic examination are essential in the diagnosis and clinical staging (such as the Hunt and Hess staging system) of SAH. The diagnosis is confirmed radiologically by computed tomography (CT) scan without contrast. In the case of a high clinical suspicion of SAH, a negative CT scan is followed with lumbar puncture. Non-contrast CT followed by CT angiography (CTA) of the brain can rule out SAH with greater than 99% sensitivity.

These patients are usually managed in the intensive care unit, with careful attention to blood pressure management. A major focus is to prevent cerebral vasospasm-related complications. Surgical treatment to prevent re-bleeding consists of clipping or endovascular treatment by coiling of the offending berry aneurysm.

On physical examination, her vital signs include a temperature of 38°C, heart rate 90 beats/minute, blood pressure of 150/90 mm Hg, and oxygen saturation 99% on room air. Neurological examination reveals meningeal signs with no focal neurological deficits and intact mentation. The examination of all other organ systems is normal.

She undergoes emergency cerebral angiography and coiling of a ruptured anterior communicating artery (ACOM) aneurysm followed the next day by elective coiling of an unruptured second ACOM aneurysm. Post procedure, the patient is placed on vasopressor support to circumvent cerebral vasospasm with nor-epinephrine, dobutamine, and vasopressin. An echocardiogram is done showing normal contractility and left ventricular ejection fraction.

Ten days later, the patient is severely hypotensive and unresponsive to vasopressor support. Cardiac enzymes are elevated with no electrocardiographic changes noted. The patient’s neurological status worsens, and she requires intubation with mechanical ventilation. An echocardiogram shows severely impaired left ventricular function with an ejection fraction of 10%, apical akinesis with ballooning, and basal wall sparing.

Knowledge of the cerebral autoregulatory mechanism is important post SAH and is vital in its management. In the early 1900s, Cushing described the cardiac effects of subarachnoid hemorrhage, including elevated blood pressure and bradycardia. Later with the advent of the EKG, Byer et al. described the ST segment and T wave changes in the EKG. Autopsy studies have shown varying degrees of myocardial necrosis and subendocardial hemorrhage. Cardiac dysfunction is a known complication of subarachnoid hemorrhage, and several variants of this dysfunction have been described in the literature ranging from descriptions such as Takotsubo cardiomyopathy (broken heart syndrome) to neurogenic stunned myocardium. The differences between the two entities relate to the variations noted in echocardiographic findings. In the neurogenic stunned myocardium, the cardiac apex is usually spared, and there is basal hypokinesis; however, in Takotsubo cardiomyopathy (TCM), there is apICAL akinesis and basal sparing.

Takotsubo cardiomyopathy is a transient cardiac dysfunction that involves left ventricular apical dysfunction resembling acute coronary syndrome. TCM was first described in Japan in 1990. Patients often present with chest pain and may have ST-segment elevation on electrocardiogram and elevated cardiac enzyme levels consistent with a myocardial infarction. However, when the patient undergoes cardiac angiography, left ventricular apical ballooning is present, and there is no significant coronary artery obstruction. On this association, the Mayo criteria were developed for the diagnosis of Takotsubo cardiomyopathy based on available literature. They include:

- Transient hypokinesis, dyskinesis, or akinesis of the left ventricular mid-segments, with or without apical involvement (The regional wall motion abnormalities extend beyond a single epicardial vascular distribution, and a stressful trigger is often, but not always, present.)

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Resources for Shared Decision Making
Leigh H. Simmons, MD, and Karen R. Sepucha, PhD

Dr. Simmons is a practicing internist and on staff at the John D. Stoeckle Center for Primary Care Innovation at Massachusetts General Hospital. Dr. Sepucha is the director of the Health Decision Sciences Center at Massachusetts General Hospital. They co-direct a demonstration project funded by the Informed Medical Decisions Foundation focused on implementation of shared decision making in primary care.

Generalist physicians are expected to stay current on a wide variety of clinical conditions and in the course of a year’s practice will counsel patients on hundreds of medical decisions. Many clinical decisions in primary care have a number of appropriate choices, and the right decision will depend on the medical evidence and patients’ preferences for good and bad outcomes. Some common examples of these kinds of decisions include benign prostatic hypertrophy treatments and statin use for primary prevention of cardiovascular disease. Doctors and patients are often advised to use “shared decision making” to arrive at the right treatment plan in these situations. But as a generalist, how does one keep up with all the evidence behind these treatment options, communicate that information effectively to patients, elicit patients’ preferences regarding their medical treatments, and jointly agree to a course of treatment—all in the confines of a short visit? Fortunately, there are many ways that health information technology (IT) can facilitate shared decision making.

At Massachusetts General Hospital, we have a Shared Decision Making Center that supports our providers and patients to make better decisions about medical tests and treatments. We have focused on three approaches to facilitate shared decision making: use of patient decision aids, clinician education and training, and measurement of decision quality. Patient decision aids are tools that have been shown to help doctors and patients conduct shared decision making more effectively. Decision aids—available in print, video, and web-based modules—go beyond simply providing medical information; they present an evidence-based view of the advantages and disadvantages of the options, encourage patient engagement, and help patients consider their personal preferences and treatment goals. A listing of widely available web-based decision aids and training tools are included at the end of this article.

IT has played a core role in supporting decision aid use at our hospital. Our providers are able to “prescribe” decision aids to patients through the electronic medical record (EMR). The orders are filled centrally by staff at our Patient & Family Learning Center, and a note is entered into the EMR documenting that patient education material was sent. Early acceptance of the programs by doctors required that they have control over who received the decision aids. Not surprisingly, relying solely on clinicians to remember to order the decision aid has resulted in highly variable use—some physicians are high users and others rarely prescribe.

Over the past several years, prescriptions have increased steadily, and we have received lots of feedback from clinicians and patients that the decision aids are useful in clinical practice. Further, we have documented that patients who view decision aids have high knowledge scores and are more certain about decisions related to PSA testing, colorectal cancer screening, and hip and knee replacement surgery. These results replicate much of what has been found in the Cochrane systematic review of decision aids. The 2011 review included 86 randomized controlled trials of decision aids and found that the use of decision aids led to greater knowledge about the medical conditions addressed, reduced decisional conflict, increased patient desire for engagement in decisions, and reduced the number of people remaining undecided after using a decision aid.

A major challenge in the use of decision aids, however, is getting the aids to patients at the “decision point.” Here is an opportunity for health IT. Using the EMR and patient registries to identify patients who are facing a screening or treatment decision, our delivery of decision aids can be more precise. For example, a woman turning 40 who may be facing a decision about breast cancer screening could be “flagged” in the EMR, and her primary care office could send a decision aid for review prior to an upcoming physical. The provision of decision aids through the EMR can be patient-directed as well, with a menu of decision aids available via a web portal for patients to access directly. Now that our providers are comfortable with the aids, they are very interested in exploring these automated and patient-driven options.

Another area of growing interest is the enhancement of specialty referrals by providing a decision aid prior to consultation on preferencesensitive conditions, such as joint replacement, bariatric surgery, and breast cancer treatment. Often, the act of making a referral indicates that there is a significant decision that needs to be made. Many EMRs include referral forms that can identify patients appropriate for decision aids at the time of referral. Imagine a process in your practice that facilitates the prescription of a decision aid prior to consultation with an orthopedist specializing in arthroplasty (who, incidentally, has a three-month waitlist for consultations). You refer two patients with symptomatic knee osteoarthritis to see this

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strate optimal EMR workflows have been very effective. One simply has to watch one of the 27 million “Do-It-Yourself” videos on YouTube to understand the power of this format. The production quality of our videos is amateur at best, but the educational value remains high. Video screen capture and production software facilitates easy creation. With proper formatting, physicians can view videos on desktop or mobile devices. Videos should be less than five to seven minutes in duration. They should also be compressed to less than 7 megabytes to minimize upload time.

Our informal surveys have shown that 75% of respondents found this method of training to be “very helpful.” When asked how videos compared to other training methods offered, respondents replied:

- “The video format is really nice—can view on our own time and review as needed.”
- “Very nice as no work has to be missed!”
- “I get much more from the short, directed training modules—and that they are coming from a physician using [EMR] in daily practice—even more helpful.”
- “Better than tip sheets”

It has been 13 years since I completed my residency. I started in a paper system that limited my ability to provide safe and effective care. I now operate in a fully integrated health information system that affords me the ability review clinical information, place orders, document findings using voice recognition, notify patients electronically of results, and even bill my services—all with a single software application. The system cost millions to deploy and has literally hundreds of integrated functions. I am confident that this marvelous invention called an EMR can improve quality and safety. I am just as confident that physicians must dedicate themselves to becoming experts in using these systems if they expect to improve quality and patient safety.

References

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workaround is best conceived as the active neglect of latent errors that subsequently fester in a system buried under layers of management and undetected or ignored technology failure.

The problem with workarounds is that they only work until they don’t. Failed workarounds are inevitable and result in medical errors; this is the point where the blame game gets played. Errors are part of the human condition, but system analysis can minimize the risk of preventable adverse events. Step 1 then is a philosophical shift from a culture of blame to a culture of safety that emphasizes system review and improvement over quick fixes and pointed fingers. Step 2 is developing an awareness of the resources and processes currently in place with all of their strengths and flaws.

A comprehensive system survey is essential when conducting a QI project, but the project itself is best conducted as a focused, easily measurable rapid cycle of change. After picking an objective and conducting a system survey, data must be gathered (i.e. patient surveys, chart audits), synthesized, and analyzed. Only once this has been done can a quality improvement intervention really begin.

The Plan-Do-Study-Act model (PDSA cycle, a.k.a. the Deming Wheel or Shewhart Cycle) provides an excellent framework for the next phase. Planning encompasses defining objectives and developing a practice improvement strategy. “Do” is when the plan is implemented and data are collected on its impact. During the “study” phase, the team compares actual results against expectations and analyzes where they differ. “Act” refers to correcting the process to better achieve the objectives the next time around. At this point, the cycle starts again.

Like the horizon, medical quality is something we journey toward but can never truly reach. Systems can always improve, understanding will always mature, and humans will always be imperfect creatures. Providing “quality care” is not really a definable aim; embracing mistakes as opportunities for change, committing to a culture of safety, and having the courage to journey toward improvement is the true goal. As Jean Giraudoux wisely pointed out, “Only the mediocre are always at their best.”

References

SGIM
• Absence of obstructive coronary disease or angiographic evidence of acute plaque rupture;
• New electrocardiographic abnormalities (either ST-segment elevation and/or T-wave inversion) or modest elevation in cardiac troponin levels; and
• Absence of pheochromocytoma or myocarditis.

After hemodynamic stabilization, the patient undergoes coronary angiography demonstrating the absence of significant coronary artery disease. After clinical improvement in hemodynamics, the patient is placed on an angiotensin-converting enzyme (ACE) inhibitor and beta-blocker. Four weeks later, repeat echocardiography demonstrates improvement in left ventricular ejection fraction, representing a spontaneous improvement in her cardiac contractility.

The prognosis for Takotsubo cardiomyopathy is usually favorable, if appropriate supportive care is provided during the acute phase. It is widely accepted that neurohormonal and catecholamine-induced myocardial toxicity is most likely to be the basis of both Takotsubo cardiomyopathy and neurogenic stunned myocardium. Other possible etiologies include multi-vessel coronary vaso-spasm, impaired cardiac microvascular function, impaired myocardial fatty acid metabolism, and even acute coronary syndrome with spontaneous reperfusion with associated reperfusion injury. The apical portions of the left ventricle have the highest concentration of sympathetic innervation found in the heart and may explain why excess catecholamines seem to selectively affect its function.

A significant emotional or physical stressor typically precedes the development of TCM. Nearly 90% of reported cases involve post-menopausal women. The reversibility of left ventricular dysfunction with time and conservative medical management as described in this case is characteristic of TCM and reflects the norm that these patients do indeed have an excellent prognosis for full recovery. Mortality from TCM is estimated to be less than 3%. Non-mortality-related complications to anticipate include the following:

• Left heart failure with and without pulmonary edema,
• Cardiogenic shock,
• Left ventricular outflow obstruction,
• Mitral regurgitation,
• Ventricular arrhythmias,
• Left ventricular mural thrombus formation, and
• Left ventricular free-wall rupture.

No medical therapies have been studied specifically for TCM; however, it is common practice to prescribe ACE inhibitors or angiotensin receptor blockers at least until left ventricular function is restored. Beta blockers are also indicated and may be useful in the long term. Other standard outpatient post myocardial infarction medications, such as statins, aspirin, and clopidogrel, are of unknown benefit. Until the emergence of large randomized controlled trials on this interesting and relatively novel condition, it is important for clinicians to anticipate TCM in high-risk populations and recognize and aggressively manage it, given its excellent prognosis.

Learning Points
• Takotsubo cardiomyopathy often mimics acute coronary syndrome in patients (usually post-menopausal females) with emotional/physical stressors, which can include medical problems such as intracranial catastrophes.
• TCM often presents with chest pain, ST segment elevation, and elevation in cardiac enzymes in the absence of demonstrable coronary artery disease on cardiac catheterization.
• The characteristic echocardiographic appearance includes left ventricular apical akinesia/hypokinesia (ballooning) with basal sparing.
• Management is supportive, with hemodynamic support in the acute phase and the use of ACE inhibition and beta blockade.
• In most cases, prognosis is excellent with complete reversibility of cardiac dysfunction.

References
found 106 patients with a diagnosis of COPD/asthma and 32 with symptoms compatible with that diagnosis (e.g. dyspnea, cough, and wheezing). I was, however, surprised to find that of the 138 patients seen during the selected time period, only 11 had pulmonary function tests (PFT). Our clinic has a spirometer on site, which means that residents have not been ordering this test. Perhaps residents are not aware that the guidelines state that any smoker with cough and dyspnea should be tested for COPD and that anybody with a diagnosis of COPD/asthma requires PFT. There is no consensus on the frequency of testing lung function; the American Thoracic Society recommends yearly testing, and the American College of Physicians just recommends diagnostic PFT. The solution? I have proposed an addition to our electronic health record software; if the diagnosis of COPD/asthma or history of smoking is added to the chart, the software will ask the user if PFT are needed.

As a resident, I think it is of vital importance to learn about quality improvement projects in the practice of medicine. We are improving daily and challenging ourselves to be better physicians; why shouldn’t we strive to improve our practices as well? It is also easier now, in the era of electronic health records, to review our charts and make improvements through the software. Consider that every one of your patients will be thankful to receive better care, which should always be our goal.

References

Each of us has a unique approach to addressing clinical problems; once you find your solution, implement it—and don’t forget to evaluate the improvement.


Resources for Shared Decision Making and Decision Aids
- Ottawa Personal Decision Guide (http://decisionaid.ohri.ca/decguid e.html): a general guide that can be used for any health or social decision
- Ottawa Inventory of Decision Aids (http://decisionaid. ohri.ca/A2invent.php)
- A comprehensive site with multilingual decision aids (www.thedecisionaidcollection.nl.)
- The Informed Medical Decisions Foundation (www.informed medicaldecisions.org)
- The Knowledge and Evaluation Unit at Mayo Clinic (http:// shareddecisions.mayoclinic.org)
comments related to compensation do not relate to them. While hospitalist compensation often exceeds compensation for ambulatory medicine, this is due to a combination of increasing demand for the still relatively new field and substantial hospital cross-subsidies (estimated at more than $130,000 per physician annually), not due to adequate payment for clinical services. When the supply of hospitalist physicians catches up with demand, the hospital executives are likely to take notice and reconsider their subsidies. It is not a healthy situation for either inpatient- or ambulatory-oriented generalists to be so dependent upon cross-subsidies to support clinical compensation.

In addition, the professional environment available to generalists does not support the values and vision that typically lead physicians to take up generalist careers—that is, an emphasis on treating the whole person and attending to the biopsychosocial aspects of patient care. Instead, most generalist environments emphasize productivity based mostly on number of encounters and based minimally on the quality of the care provided. Initiatives such as the patient-centered medical home (PCMH) model are structured to shift the focus to quality care outcomes and may improve physician satisfaction. However, the fact is that most generalists still work in environments that strongly tie compensation to volume. Quality (or value) of the care provided accounts for a very small percentage of the compensation for most generalist physicians, even those working in PCMH environments.

Traditionally SGIM as an organization has focused primarily on education and research issues related to GIM, and we will continue to do so. We have traditionally partnered with other like-minded organizations to accomplish changes in health policy relating to clinical issues and reimbursement, and we will continue to do this as well. However, at its last retreat, the SGIM Council felt that the organization needs to increase its focus toward articulating the crisis that exists for our field more generally, not solely limited to the education and research aspects. Within the internal medicine umbrella of organizations, we have an obligation to be strong advocates for our field, as we are the group that focuses solely on general internal medicine. One sign of the Society’s move in this direction is the National Commission on Physician Payment Reform, which was spearheaded by Harry Selker during his presidential year. The Commission will examine how physician payment reform can enhance value for the health care system while enhancing patient and physician satisfaction and autonomy. The Commission, chaired by former SGIM president Steven Schroeder, has been described previously by Dr. Selker in the Forum and is proceeding with its work. The Society has also secured funds from the Agency for Healthcare Research and Quality to partner with the Society of Teachers of Family Medicine and the Ambulatory Pediatric Association to host a second national invited conference to develop a research agenda to further inform the adoption of the PCMH model of care delivery.

In addition to these initiatives, I have asked our SGIM committees each to consider what more we can do to communicate the challenges faced by our field and to develop and articulate potential solutions. There is a wide national consensus that our health care delivery system is in crisis and requires re-design, even though there is disagreement about the solutions. We need to articulate the crisis as it pertains to GIM and work among ourselves and with others to develop solutions. This is a real crisis, and we need to be sure we do not waste it!

References
The More Things Change, the More They Stay the Same

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There are some things on which most all physicians can agree: Smoking, excessive alcohol consumption, and excessive eating can all damage a patient’s health. Indeed, all of these are modifiable risk factors for some of the most common diseases we see in general medicine, including coronary artery disease, asthma and COPD, obesity, low back pain, and substance misuse and abuse. Most physicians would agree that technology—though it improves patient care—can often be irritating. For residents, it is the concept of “hammer paging,” receiving page after page. For those further along in medicine, it shows up as endless e-mails—either to you or as a “cc” or “bcc”—that can make a long day seem longer.

Do you agree with the above statements? Have you already thought to yourself, “Yep, that’s all true. So what is the point of this article?” The point is this: Those are ideas and opinions that doctors had about their patients and their work in October 1970. (Clarification: They mentioned telephones as a frustration, and I changed it to e-mail). The October 2, 1970, issue of Life magazine, which featured George Mitchell’s wife Martha on the cover, included a five-page article titled “What Doctors Think of Their Patients.” I found it on a recent trip to the Berkshires in Western, Massachusetts.

Evidently, a convenience sample of “500 urban, suburban, and rural physicians, all of them general practitioners” was asked to participate in a survey about “the follies and weaknesses of their patients.” Each respondent was asked to “take a professional look” at him or herself.

So what did the survey show? Some of the more notable results that have changed little—if at all—in 42 years are listed below:

• 56% of physicians agreed that “doctors have to jam so many patients in, they don’t give anyone enough attention.” The 15-minute visit continues to be a sore point for patients and generalists alike.

• “Patients expect things of us that are not possible; they think we can work forever like machines without rest; a doctor is simply a person, not a god.” Is it a wonder that more and more residency graduates who pursue general medicine choose hospitalist shift work rather than primary care?

• “Their views on how patients harm themselves most can be summed up in one word: overindulgence.” Today, 33% of our population is obese.

• 90% of doctors felt most of their middle-aged patients would benefit from regular exercise. 21% of those same physicians did not exercise themselves. How many physicians would today state that their patients should exercise? How many meet the current CDC recommendation of 150 minutes of exercise a week?

• Eight stereotypical patients and frequent psychosomatic complaints that often resulted in their symptoms were presented. Categories ranged from “the white collar worker” and “working women” to “divorced people” and “college age and under 30.”

So, what do we as generalist physicians think of their patients today in 2012? What types of patients would we classify into groups of “typical patients”? Do we all practice what we preach? These questions might all be best answered on an individual basis. An immediate answer may not be obvious.

What is clear, though, is that technology has certainly changed the practice of medicine. Countless articles lament how advances in technology have replaced the physical exam. Technology and the use of iPads have been shown to make physicians more efficient. And the use of the Internet has improved outcomes in studies on conditions such as obesity and diabetes.

In the current era of online doctor and hospital ratings, patient-centered health care, pay for performance, quality indicators, and improved patient access to labs and even physician progress notes, there is impressive critique of physicians in everything we do. The new trend is not even to call those for whom we care “patients” but rather “health care consumers.” Be it on the Internet, in a journal, in the newspaper, or on the evening news, almost everything we do is being examined. Well known organizations such as Picker and Hospital Consumer Assessment of Healthcare Providers and Systems (HC-AHPS) ask patients about their subjective experiences, national organizations create quality metrics to measure our worth as clinicians, and study after study shows us how good we are at educating patients and making them feel like we listen to them.

And all of this is for the good. It makes medicine a more transparent, evidence-based, and humble profession. But it leaves me with a lingering question: Has patient behavior and physician opinion changed all that much over the past four decades, or are we just better at quantifying it?
Cambridge Health Alliance (CHA) is a nationally recognized health system and a major teaching affiliate of Harvard Medical School. We are currently recruiting a FT primary care physician for our growing PACE site, The Elder Service Plan.

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Send Curriculum Vitae and three recent letters of recommendation to Leslie McElvey, Coordinator, Administrative Services, UF Department of Medicine, PO Box 100277, Gainesville, FL 32610, or Leslie.McElvey@medicine.ufl.edu.

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