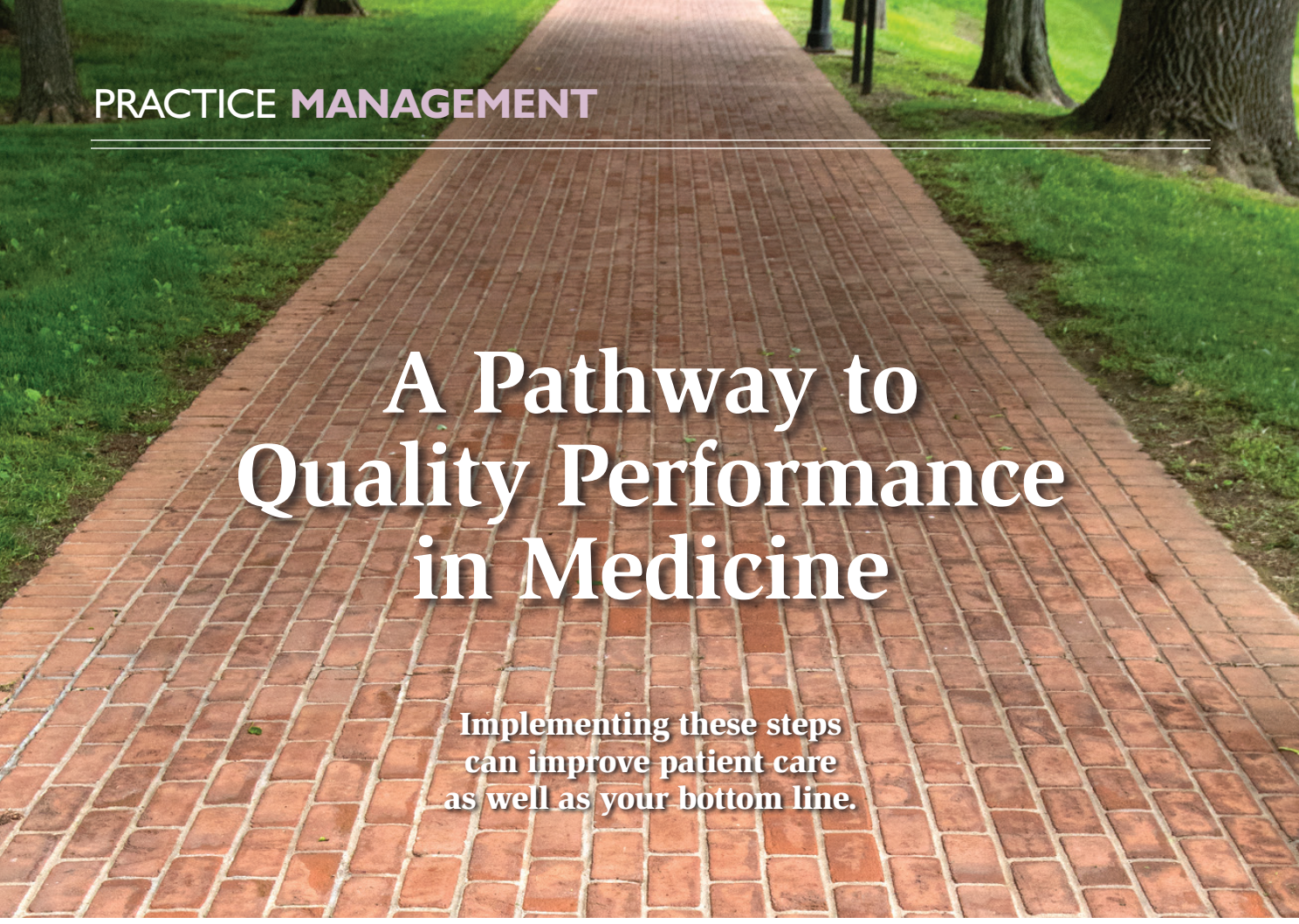

A Pathway to Quality Performance in Medicine

Implementing these steps can improve patient care as well as your bottom line.

BY JON A. HULTMAN, DPM, MBA

Given the current number of podiatric groups that have formed around the country—all utilizing EMRs—it's time to re-introduce information still relevant today that was published several decades ago. Hopefully, these newly-formed groups will address the quality problems in healthcare that IPAs were unable to solve due to the fact that their members were, in fact, independent and utilizing a variety of EMRs. Each also employed its own clinical guidelines, and no attempt was made to determine which guidelines were best for use by all doctors in the group. A patient going to ten different locations could get ten different recommendations for the same condition. The possibility of receiving ten different recommendations is, in itself, the definition of bad quality.

Quality is measured in all industries by the degree of variation from a desired standard. By this definition, quality in the healthcare industry will be improved and costs lowered when treatment variation is reduced. Not long ago, the majority of physicians were practicing solo or in small groups of five or fewer physicians. There were no incentives or mechanisms for national collaboration to solve this problem of treatment variation; yet, until doctors begin to make this issue a priority, no meaningful healthcare reform that is capable of optimizing the needs of payers, patients, and doctors will be forthcoming.

Today, we see far more DPMs practicing in larger groups and networks, much of which has been driven by private equity funded management companies acquiring practices and building larger networks. If these groups begin to address treatment variation and collaborate to develop preferred clinical guidelines to be used by all physicians in their groups, they should be able to demonstrate better outcomes. This presents an opportunity.

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The following are excerpts taken from The Medical Practitioner's Survival Handbook by Jon A. Hultman, DPM, MBA–Chapter 7: Get the Most from Your EMR

Future Importance of the EMR

Even when a physician has chosen the "right" product for his/her practice and has successfully "gone live"—changing workflow to improve

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quality, efficiency, and productivity—the implementation process is not yet completed. The next step is to utilize the stored clinical data that has been captured by the EMR for measuring patient outcomes, eliminating ineffective care, reducing treatment errors, tracking follow-up care (to improve patient compliance), preventing disease and its complications, and participating in pay for performance and other quality initiatives designed to reward physicians who prevent disease and achieve better patient outcomes. To accomplish this end, an EMR must employ specific treatment guidelines, and data must be stored in discrete, searchable fields.

Years ago, PricewaterhouseCoopers (PWC) published a comprehensive research report entitled *HealthCast 2010*, which covered forces and trends within the healthcare industry. Input for this report came from many of PWC's four thousand healthcare clients (including providers, health insurers, employers, and service suppliers)—along with input from 380 healthcare "thought leaders." One significant topic addressed in this report was the necessity of using treatment guidelines for reducing medical costs and improving quality. In the following statement, the report articulated the barriers that make pursuit of this goal difficult: "Medical professionals need to work toward global standards of medical treatment. In the United States, no national processes exist for developing standards of care."

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While each EMR comes with a set of general medical guidelines, and some even come with a set of specialty-specific ones, these must be modified to fit each individual practice. This is something that must be done at the practice level and requires collaboration amongst the software company representatives, the physicians, and all staff members involved. All guidelines must be "hard-wired" to the correct codes, modifiers, and charges—which is easier for large groups to accomplish because they have management and staff in place and can assign specific doctors to work with management. Smaller groups will need a strategy for attaining affordable help from their software companies, and they will need to collaborate with peers and share data in order to have enough data to successfully employ evidence-based medicine and participate in "pay for quality" initiatives.

Since the EMRs of most doctors do not yet have clinical guidelines in place for measuring outcomes, quality initiatives such as pay for performance are often based on claims rather than on outcomes data. For example, if a company wants to provide an incentive for doctors to discuss smoking cessation with patients, the payer may only be able to measure whether or not the doctor discusses smoking cessation. One doctor may utilize a detailed guideline and spend several extra minutes discussing cessation with each patient while another might simply check a superbill, indicating that "smoking cessation was discussed." Data from a doctor who utilizes an EMR with more detailed guidelines might show that s/he achieves a 40% cessation rate, while one simply checking a box showing that smoking cessation was discussed may only show a 5% level of achievement. This would make it clear that the first doctor deserves a higher payment because, over the long term, this doctor's patients will be healthier, with resultant lower healthcare costs.

The primary barrier to every initiative directed at improving the cost and quality of our healthcare system is located at the doctor-patient-technology interface. This is something that would change quickly if a critical mass of physicians were to actively embrace EMR technology and utilize it to its maximum capability. Technology capable of improving practice performance and positioning practices for evidence-based medicine and the future of healthcare is available today. The challenge is to find the program and software company that are right for your practice, involve your doctors, develop a plan (in conjunction with an implementation team that can help you achieve your goals), and collaborate with peers in developing and testing clinical guidelines which can be shown to prevent disease and improve patient outcomes. This approach will greatly improve your chances of successful EMR implementation. As successful implementations grow in number, the overall cost and quality of our healthcare system will continue to improve.

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Reduce Errors with an EMR

The medical community can look to other industries when approaching the task of error reduction. Relatively few of the error prevention concepts proven long ago by other industries have been fully accepted by the healthcare industry and adapted to our delivery processes. A major barrier to initiating a process for reducing errors in medicine is our lack of recognition

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that individuals are not directly at fault for the vast majority of errors. Instead, as other industries have discovered, most errors result from "system failures" which, in turn, result from poorly designed processes. Taking a cue from industries that have successfully reduced their error rates, doctors must focus on error reduction through examination and improvement of the processes they utilize to connect the various steps in their patients' care as well as the communication processes throughout their practices and the facilities to which they refer patients.

The starting point in this process is recognition of the fact that error rates have little to do with either lack of intelligence or training and that fixing blame will only serve to worsen a problem. A comparison to the airline industry can give us deeper insight into this issue and offer possible solutions. The airlines are part of an industry in which, like medicine, relatively "small," easy to avoid errors can result in catastrophe. Let us start with what would seem to be an easily avoidable pilot error—somewhat equivalent to a doctor operating on the wrong body part. On takeoff, pilots (who are thoroughly trained) must extend flaps and slats on the plane's wings to add lift. If this step is omitted, the result can be fatal. Data shows that from the year 2000 to the 2009, pilots reported 55 cases in which they attempted to take off without properly extending these flaps. This seemingly "small," easy-to-make error could have resulted in many fatalities. Fortunately, however, the airline industry had installed warning horns to alert pilots when they committed this oversight of something that would have seemed "obvious," and in all cases, these horns functioned properly, alerting pilots in time to avoid disaster.

Significantly, the airline industry has not only implemented such processes, but has also adopted the policy of attaching no stigma to "incidents of omission," making pilots unafraid to report them. They understand that the more data collected when these incidents occur, the more likely it is that safeguards will be found which will reduce their numbers in the future. According to Ben Berman, a former National Transportation Safety Board investigator, "You'll do the same thing correctly one million times and then not do it correctly one time. Things like a moment of stress, a spike in workload, a change in routine—all these things throw humans off track."

Terry McVenes, an airline accident investigator, stated, "It's a good reminder for crews to understand that you've got to be following your procedures, and if there are inter-

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ruptions while you are doing your checklists, you've got to stop and be vigilant to make sure you don't miss anything." His statement leads me to wonder what kinds of procedures and checklists medical professionals employ and how thoroughly these are followed, especially during busy or stressful times when interruptions are frequent. These preventative procedures and checklists are something we should adapt to our practices to lower error rates since they have already been proven to substantially reduce errors in other industries.

There are obvious parallels between the environment in which physicians practice and that in which commercial pilots fly. Clearly, stress, spikes in the workload, changes in routine, and distractions are normal occurrences in the typical day of both; however, unlike airline pilots, physicians have yet to embrace step-by-step procedures and checklists. There are few "warning horns" for alerting doctors when steps in their treatment processes are omitted or performed incorrectly. Those step-by-step guidelines that do exist in healthcare are often not implemented or diligently followed. The ease of use and effectiveness of clinical guidelines which function as a "checklist," can be greatly enhanced through the use of new electronic medical record technologies which offer the opportunity to enact the equivalent of "warning horns" when potentially harmful errors or omissions are made. If every physician were to actively utilize well thought out guidelines and incorporate them into his/her software, error rates would be drastically reduced, and treatment outcomes would be greatly improved, just as they have been in the airline industry.

Medicine is both an art and a science, and doctors tend to err on the side of "art," often resisting anything that might appear to be "cookbook medicine." While most believe that they consistently provide the care recommended by their specialty societies for specific conditions, a Rand study has shown that, on average, physicians fail to provide the recommended care 50% of the time. The reliance on "art and memory," rather than adhering to recommended clinical guidelines, increases the opportunity for errors and omissions—especially on "busy" days. When clinical guidelines are automated through electronic medical records, the opportunity for errors and omissions is greatly reduced because the doctor is prompted to consider all recommended exams, tests, treatments, and medications for each patient and condition. Follow-up is unlikely to "fall through the cracks." A recommendation will not be omitted as the result of "forgetting" because a doctor who diligently utilizes automated guidelines will consider all recommendations. Any omission is intentional, based on the doctor's consideration that a particular recommendation is unnecessary for a specific patient. This is where the "art" of medicine comes into play; the physician is using his/her experience and judgment to "make the call."

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An electronic prescription system is capable of alerting the doctor to an allergy or potential interaction at the moment a prescription is being "written."

One of the most common sources of serious medical errors is the order of a prescription. This error typically results from: prescribing an incorrect dosage, illegible handwriting, or the doctor "missing" a potential allergy or drug interaction. Electronic prescriptions can help to eliminate these errors as long as medication and allergy lists are regularly monitored and kept up-to-date on the software. Electronic prescription software can provide the equivalent of an airplane's "warning horn." Such software has been shown to reduce the number of prescription errors by 81%.

An electronic prescription system is capable of alerting the doctor to an allergy or potential interaction at the moment a prescription is being "written." Although every doctor would agree that allergies and drug interactions are essential parts of the procedural "check list" which they should follow meticulously, they are sometimes missed. Most doctors believe they can do without written guidelines and check lists backed up by electronic warnings, but many have been proven wrong. The number of errors being reported seems to be growing and this issue continues to make headlines. Electronic reminders will reduce errors—especially during hectic or stressful times. This "science" can enhance our art. Using technical "assistance" does not lessen our ability to apply the healing "arts." In practice, it simply enhances our treatment.

Reduce Treatment Variation with an EMR

It has been well documented that patients who have the exact same symptoms, clinical findings, and diagnoses receive a wide range of treatments. When Medicare analyzed 180,000 heart-attack patients in 1999, it was found that, "The quality of care provided heart-attack patients has more to do with their zip codes than with their medical condition. There is a wide gap between what we know and what we do." Years ago, even the despised managed care organizations

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correctly identified "treatment variation" and "lack of physician follow-up" as two critical deficiencies within the healthcare delivery system—deficiencies that result in sub-optimal outcomes, avoidable medical errors, and significantly higher costs. Doctors are the only members of the healthcare community who can "fix" these deficiencies, but in addition to being a fragmented and independent group, doctors lack the time, resources, expertise, and central management capabilities required to coordinate a project of this scope and complexity.

A study conducted by Medstat in September 1999, found that only 29% of its sixteen thousand patients diagnosed with diabetes received the recommended annual eye exams, only 49% of the 3,949 patients with heart failure received an echocardiogram within three months of their initial diagnoses, and only 25% of the 6,404 asthma patients received the recommended anti-inflammatory drugs. The study found similar shortcomings in the recommended practice for patients with otitis media, low back pain, peptic ulcers, breast cancer, hypertension, and systemic heart disease. In the typical medical practice, no efficient mechanisms are in place for: 1) measuring and comparing outcomes for any recommended course of treatment, 2) assuring that the doctor follows-up, or 3) determining whether patients comply with instructions.

Medstat found that even with overwhelming clinical evidence supporting certain treatment pathways, these often were not followed. Medstat findings were supported by United Healthcare's findings from an audit of its doctors in the early nineties which found that only 37% followed the American College of Cardiology's recommendation for beta blockers following a heart attack (for the purpose of avoiding a second attack), and only 59% of diabetic patients received the recommended annual glycated hemoglobin test. United also found that its doctors had no system for reminding patients about tests or reminding themselves to check whether or not patients were taking certain medications.

In spite of the fact that studies and healthcare groups recognize the need for clinical guidelines (for collecting outcomes and cost data that can lead to "best practices" and reduce treatment variation), simply writing guidelines on paper and making them available to doctors has not proven to be an effective approach. The sheer number and complexity of guidelines make them cumbersome and impractical to use in a paper format at the point of care, and the inability to produce outcomes data using "paper" guidelines makes their adoption difficult. There is currently no resultant data that would compel a physician to change the way s/he treats a specific problem. Treatments are constantly changing, doctors are busy seeing too many patients, guidelines in paper-based reference manuals are too unwieldy, things easily fall through the cracks, and busy doctors cannot be asked to spend additional time searching for "correct" pathways, entering redundant data, and performing ever more documentation.

What is capable of improving the quality of a practice—and its bottom line too—is software that is integrated, properly implemented, kept up-to-date, and capable of storing clinical data in discrete, searchable data fields—enabling it to be retrieved at a later date for analysis of treatment outcomes. The software and technology capable of accomplishing these goals exist today, and individual doctors and groups can achieve these goals by working together with others in their specialties. The resultant quality improvements would lower malpractice occurrences through more complete and legible records, the elimination of certain medical errors—such as prescribing medication for a patient to which s/he is allergic, or which will interact adversely with other drugs that s/he is taking—and preventing critical patient follow-up from falling through the cracks. For these reasons, the effective application of technology, coupled with its ability to enable coordinated care amongst all those involved in healthcare, should be at the top of the "quality improvement" list of virtually everyone who has a stake in the healthcare delivery system.

Even though implementation of a quality initiative might require a little more of a doctor's time, it does justify a higher reimbursement because of the overall improvement in the healthcare system and the dollars saved by third-party payers as a result of these measures.

The Current Situation

Many years have passed since I wrote this chapter. Most practices now have the relevant technology in place necessary for reducing treatment variation and measuring treatment outcomes. They also have management in place to assist with this process. This is especially true of the newly-formed groups that have had an infusion of private equity dollars. Even though implementation of a quality initiative might require a little more of a doctor's time, it does justify a higher reimbursement because of the overall improvement in the healthcare system and the dollars saved by third-party payers as a result of these measures. **PM**

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