

## ON THE LEARNING CURVE

## Spearheading Organizational Change

Over the past year, I have written about many aspects of leadership, focusing on personal goals and skill development. Hopefully, a few of you have learned from these articles and have been able to implement some of the theories and techniques I discussed to further your own leadership development.

There is, however, a next step: For most of us, there will come a point when personal leadership is not enough and our own efforts will be inadequate without more global organizational change. This is not a reason for discouragement (though it can seem overwhelming and insurmountable), but rather an opportunity for us to improve child health on a larger scale.

I have seen countless examples of someone working and working but getting nowhere because of institutional barriers, inefficiencies, or misaligned priorities. I have also seen times when someone visionary stepped back from the process and figured out what needed to happen for true improvements to be made.

Organizational change can happen on a large or a small scale; it can mean making modifications to the roles and responsibilities of your front desk staff, or it can mean completely restructuring the organizational leadership of an entire hospital. It can happen out of necessity (your office is losing money and something needs to change or the practice will no longer be sustainable) or through development (the needs of your patient population and staff have changed, and you

would like to respond accordingly). You may play a major and/or an initiating role in this change, or you may provide the support to enable changes to be made. Regardless, organizational growth and development require critical leadership skills.

There are many books, articles, and other resources available on this topic; I have even taken a whole class on it, and that was just an introductory class. There are also many models and theories—some of which are at odds with each other—from which to learn. From my perspective, the important thing if you are just starting out is to begin by focusing on a manageable, achievable change and figure out a way (probably utilizing one of the aforementioned models or theories) to organize the process in your mind. What you focus on will depend on what your needs are. It will likely be obvious to you when you think about what frustrates you the most in your daily work or what you would really like to see happen, but just hasn't.

The important thing is to step back and think about whether there is something that needs to be different at an organizational level in order to make things better. From there, you can begin the process of organizational change. A great way to think about it is to consider the three stages of change articulated by psychologist Kurt Lewin: unfreezing, changing, and freezing. In essence, you must first identify an issue, gather data, and make a plan (obtaining essential "buy-

in" from others along the way). Next, the change process happens, and then (an important but often forgotten component), the change is evaluated and maintained—the "freezing."

Two common models used in the change process are Action Research and the Model for Improvement (a more comprehensive version of the Plan-Do-Study-Act cycle many are familiar with). Both are regularly utilized across many different disciplines, though my (albeit limited) experience is that the Model for Improvement is more commonly utilized in health care settings. A detailed description of these models is beyond the scope (and space) of this article; however there are many online resources for those who are interested, including the Center for Collaborative Action Research (<http://cadres.pepperdine.edu/ccar>) and the Institute for Healthcare Improvement ([www.ihi.org/IHI/Topics/Improvement/ImprovementMethods/HowToImprove](http://www.ihi.org/IHI/Topics/Improvement/ImprovementMethods/HowToImprove)). For anyone embarking on organizational change, these are topics well worth your time.

As Andy Warhol said, "They always say that time changes things, but you actually have to change them yourself." ■



BY LEE SAVIO BEERS, M.D.

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## MDs Need to Understand E-Prescribing Benefits, Concerns

BY KERRI WACHTER

WASHINGTON — E-prescribing can help reduce medication errors, lower practice costs, and save physician time, but it's important to understand the limits and problems of this rapidly evolving technology, according to Dr. Kevin Johnson.

"There are enormously great advantages to using e-prescribing systems. [However,] there are issues that you need to be aware of," said Dr. Johnson, vice chair of the biomedical informatics department at Vanderbilt University Medical Center in Nashville.

The primary reason for adopting e-prescribing is to prevent errors. "If all you ever did was just switch to Microsoft Word, you will decrease your risk [of prescription errors] by 15%," Dr. Johnson said at the annual meeting of the American Academy of Pediatrics. Illegibility is one of the prime drivers of prescription errors, along with dose errors and unclear abbreviations. Dose errors in particular play a big role in pediatric medication errors.

Dr. Johnson cited the 10-fold error as an example of a common one. A pediatrician may include a trailing zero in the dose but if the pharmacist doesn't see the period, the dose will be increased 10-fold. "Believe it or not, that dose is probably a completely valid dose, depending on the age of the child," he said. A similar mistake can occur with leading zeros. Another common error is the calculation of a dosage using the wrong units. For

example, a pediatrician might use weight in pounds to calculate a dosage, when weight in kilograms should be used.

"These are all things that e-prescribing can potentially help in terms of making sure that the communication is clear between us and the pharmacy," he said.

Other errors associated with paper-based prescriptions include omissions, dose or direction errors, unclear quantity to be dispensed, prescriptions for non-prescription products, incomplete directions, and unfulfilled legal requirements (J. Fam. Pract. 1989;29:290-5).

E-prescribing systems also can provide clinical decision support (such as drug-drug interaction checking), pharmacy benefit eligibility checking, formulary compliance, drug reference, medication history reporting, and prescription routing to retail or mail order pharmacies.

Electronic prescribing systems offer potential cost savings to both physicians and pharmacies by eliminating handwriting issues, reducing overtime and callback problems, and speeding up refill requests, according to Dr. Johnson.

However, if you're considering an e-prescribing system, he recommended considering an electronic health record system as well. "My opinion is that EHRs are as important as e-prescribing," EHRs provide valuable patient information for e-prescribing, such as allergies and medication history, and solve some workflow issues.

Electronic prescribing systems can be

integrated into existing electronic medical record systems or can be used as a stand-alone option. Stand-alone systems can involve either an application service provider or locally installed software. The use of an application service provider means that the system exists on the Web. Internet access is all that is needed to access the system. Physicians need to think about what setup will work best for them, said Dr. Johnson.

Connectivity is a key element of e-prescribing. For example, SureScripts is an e-prescribing network that is connected with approximately 95% of pharmacies in the United States, according to its Web site. This connectivity allows physicians and pharmacists to electronically exchange prescription information. Physicians can transmit new prescriptions and refill requests electronically to a pharmacy. Both pharmacists and physicians have access to aggregated information across the system about a patient's medication history and often can view formulary information from a patient's drug plan. In the future, "there will be some competitors, but at this moment there aren't," he noted.

Reliability of prescription transmission remains a problem for some e-prescribing systems that rely on fax to transmit prescriptions. Although such a system may provide the physician office with confirmation that a prescription has been sent to a pharmacy, "on the pharmacy end, more than 20% of the time that prescription may not be

received," said Dr. Johnson. This can sometimes result in multiple prescriptions or multiple documentations in an e-prescribing system.

Another downside to e-prescribing is the number of alerts that a physician can receive, based on how many automatic checks have been activated. Physicians often end up turning off drug-drug interaction or drug allergy checks to decrease the number of alerts sent by the system. If all checks are activated, "it is actually not uncommon that almost every prescription generates something." ■

**Disclosures:** Dr. Johnson reported that he receives royalties from ICA Corp.

## Online Resources

The eHealth Initiative provides a set of guides and reports on e-prescribing ([www.ehealthinitiative.org/electronic-prescribing-resources.html](http://www.ehealthinitiative.org/electronic-prescribing-resources.html)) that is a good information resource.

For more information on preventing pediatric medication errors, see the Pediatric Pharmacy Advocacy Group's 2001 publication, "Guidelines for Preventing Medication Errors" (J. Pediatr. Pharmacol. Ther. 2001;6:426-42; [www.ppag.org/attachments/files/111/Guidelines\\_Peds.pdf](http://www.ppag.org/attachments/files/111/Guidelines_Peds.pdf)).