

# Electronic Health Records Put VA in Command

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Over the last decade, health care within the Department of Veterans Affairs has transformed itself from a near failure to a national model for quality improvement, leaving many to ask how they could learn from those lessons.

The answer may lie in part with the department's electronic health record system. Known as VistA (Veterans Health Information Systems and Technology Architecture), the system recently received the Innovations in American Government Award, a top honor from Harvard University's Kennedy School of Government.

The award was given to seven government programs that each took a unique approach to meeting community needs. All of the recipients were given a \$100,000 grant to share the factors behind their success.

For Dr. Douglas J. Turner, it's clear that the VA is doing something right when it comes to health information technology (IT). Dr. Turner, who is chief of general surgery for the VA Maryland Health Care System at the Baltimore VA Medical Center and is on the surgery faculty at the University of Maryland, Baltimore, straddles the VA system and the private sector.

At the University of Maryland Medical Center, he works with at least two different computer systems for reporting patient variables as well as consulting with several different electronic and paper sources to get the information he needs to see patients. In contrast, at the VA, every clinic is connected in the VistA system with a single patient identifier.

The VA computerized patient record

system, which sits atop the VistA platform, includes the physician's notes, lab results, and results of consults and surgical procedures. It also generally includes information from visits made outside the system. A hard copy of the clinical record from an outside visit can be scanned into the VA system and made available within a day, Dr. Turner said.

Quality of care has improved since the implementation of VistA, Dr. Turner said. The system includes a check for drug-drug

interactions plus several other alerts that let the physician know what's been going on with the patient since the last visit.

VA officials began building the first generation of the computerized patient record system in the late 1980s out of a need to deal with the increasing number of veterans coming into the system, while resources remained tight, said Linda Fischetti, R.N., acting chief health informatics officer at the Veterans Health Administration's Office of Information. "We had

to find ways in which we could reduce redundancies and care for more patients."

And the move to an electronic system was driven largely by clinicians who said they needed better tools. "We had clinicians actively saying, 'We need this, we need this, we need this,'" Ms. Fischetti said.

The idea was to create a single system with robust functionality in every health care environment—the inpatient hospital, the outpatient hospital, the long-term care facility, and clinics within the community.

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Advertorial

Helping Change the Cycle of Migraine

A RICHER UNDERSTANDING OF PATIENTS' MIGRAINE IMPAIRMENT



The renowned Diamond Headache Clinic recently hosted a meeting featuring the results of the landmark American Migraine Communication study (AMCS). The study revealed that, during office visits for migraines, patients heard mostly closed-ended or short-answer questions (91%), which prompted limited responses.<sup>1</sup> Such questions may tell you about frequency and severity but may fall short in clarifying the patient's total level of impairment due to migraine.

AMCS reveals prevention is often overlooked

Despite the fact that many patients met the American Migraine Prevalence and Prevention study criteria for prevention, discussions were initiated in only 50% of the office visits.<sup>1</sup>

TOPAMAX Tablets and TOPAMAX Sprinkle Capsules are indicated for adults for the prophylaxis of migraine headache. The usefulness of TOPAMAX in the acute treatment of migraine headache has not been studied.

TOPAMAX is contraindicated in patients with a history of hypersensitivity to any component of this product.

**IMPORTANT SAFETY INFORMATION**

TOPAMAX has been associated with serious adverse events, including:

- Hyperchloremic, non-anion gap metabolic acidosis—lowering of bicarbonate levels in the blood. Measurement of baseline and periodic serum bicarbonate is recommended.
- Acute myopia and secondary angle-closure glaucoma—patients should be cautioned to seek medical attention if they experience

blurred vision or ocular pain.

- Oligohidrosis and hyperthermia—decreased sweating and increased body temperature, especially in hot weather. The majority of reports have been in children.
- Cognitive/psychiatric side effects including cognitive dysfunction, psychiatric/behavioral disturbances including suicidal thoughts or behavior, and somnolence and fatigue.

Most common adverse events associated with TOPAMAX 100 mg vs placebo were: paresthesia, 51% vs 6%; anorexia, \* 15% vs 6%; fatigue, 15% vs 11%; nausea, 13% vs 8%; diarrhea, 11% vs 4%; weight decrease, 9% vs 1%; taste alteration, 8% vs 1%.

The possibility of decreased contraceptive efficacy and increased breakthrough bleeding should be considered in patients taking combination oral contraceptive products with TOPAMAX.

The current system is the second generation and VA officials continue to modernize it, Ms. Fischetti said. Today, the system allows VA clinicians access to complete historical information on their patients, as well as real-time clinical reminders and real-time decision support.

The main lesson from the VA experience is that the system must be driven by the needs of the clinician, Ms. Fischetti said. It must also do more than replace the conventional paper chart. If the health IT product does not add value for physicians, she said, they might not adopt it.

She noted, however, that the VA, as both the payer and provider of health

care services, distinguishes itself from most of the care providers in the United States. "We are definitely different because we have the alignment of the payer and provider within our own enterprise."

Although the VA is a unique system, there are lessons that can be applied in large hospital systems and even in solo physician practices, said Tom Leary, director of federal affairs at the Healthcare Information and Management Systems Society.

For example, successful adoption of a health IT system requires buy-in from clinician leadership. Although clinician use of a system can be mandated to some

extent in any organization, it does not produce the same results unless physicians and nurses want to use the technology, Mr. Leary said.

The system's success also depends on getting a return on investment—improvement in quality and cost-effectiveness of care—as seen in VistA.

These ideas are also applicable to the small practice, Mr. Leary said, where the return may be an improvement not only in quality of care for patients, but also in quality of life for providers. Physicians have the opportunity to provide better care, without, for example, having to drive back to the office on the weekend

to answer a call about a patient, he said.

Other systems can also learn from the VA's approach to designing the system with the needs of its clinicians in mind, said Dr. Dennis Weaver, acting chief medical officer for the National Alliance for Health Information Technology.

"You've got to build it for the clinicians," he said.

But that doesn't mean just automating patient charts, he said, because recreating paper processes doesn't work. Physicians and administrators who are selecting an electronic health record system must let clinicians know up front that the work flow is going to change. ■

#### Advertorial

## COULD LEAD TO BETTER INFORMED TREATMENT DECISIONS.<sup>1</sup>

### Improving Communication Is Important to a Broader Assessment

Open-ended questions can help you gain a richer understanding of your patients' impairment during and *in between* their attacks.

The study showed that most patients gave brief yet informative responses to questions and prompts like these:<sup>1</sup>

- "How do migraines make you feel—even when you aren't having one?"
- "Describe the total impact migraines have on your work, family, or social life."

### A Subtle Communication Shift Can Help Make a Difference

You may find asking open-ended questions leads to a broader assessment of migraine impairment, and the disruption, disability, and frustration that can come with it. In fact, your patients' level of impairment may require a different treatment option.

Finding out if your patients are feeling trapped in a cycle of suffering, treating and worrying may open up an opportunity to discuss the need for preventive therapy. TOPAMAX can help stop migraines before they start—so your patients can get fewer of them.<sup>2,3</sup> TOPAMAX offers proven efficacy and is the #1 prescribed brand for migraine prevention in the U.S.<sup>4</sup>

When evaluating migraine, consider using open-ended questions to assess the total degree of migraine impairment. Then talk about the possibility of preventive therapy with TOPAMAX.

### The Migraine Discussion Continues

Look for the next installment of *Helping Change the Cycle of Migraine*, in which we'll continue to explore important topics regarding the migraine patient and strategies to help enhance patient care.

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(topiramate) Tablets

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Patients should be instructed to maintain an adequate fluid intake in order to minimize the risk of renal stone formation.

\*Anorexia is defined as loss of appetite.

Please see brief summary of full Prescribing Information on following page.

Rx

#### Important

Avoid confusion with Toprol-XL® (metoprolol succinate) by spelling out TOPAMAX® (topiramate) on your prescription. Toprol XL is a registered trademark of the AstraZeneca group of companies.

References: 1. Hahn SR, Nelson M, Lipton RB. Provider-patient migraine discussions: Results of American Migraine Communication study (AMCS). Poster presented at: 58th American Academy of Neurology Annual Meeting, April 1–8, 2006; San Diego, California. 2. Silberstein SD, Neto W, Schmitt J, Jacobs D, for the MIGR-001 Study Group. Topiramate in migraine prevention: results of a large controlled trial. *Arch Neurol*. 2004; 61:490-495. 3. Brandes JL, Saper JR, Diamond M, et al, for the MIGR-002 Study Group. Topiramate for migraine prevention: a randomized controlled trial. *JAMA*. 2004; 291:965-973. 4. IMS Data. July 2006.