Editorial

Isabel, a New Diagnostic Aid For the 21st Century
David B. Nash, MD, MBA

What if there were an easy way for physicians to reduce the incidence of misdiagnoses that result in adverse patient outcomes? The technology would take less than a minute to use, and it could be accessed from anywhere at any time. Wouldn’t all clinicians want to use a system like this?

There is no question that physicians in every specialty are well trained and have a vast knowledge base. Physicians go through countless hours of training during medical school, residency, and fellowship in addition to acquiring experience during their postgraduate work. Their comprehensive education provides them with a unique set of skills that allows them to effectively take care of patients in both an inpatient and outpatient capacity.

However, having a wealth of knowledge does not make physicians infallible; human error is an inevitable consequence that occurs regularly in practice. Furthermore, errors come with a high cost; erroneous diagnoses are typically of training and with their thousands of patient encounters. However, according to Jason Maude, the system’s development was not meant to replace a doctor’s clinical experience; instead, he explains, Isabel can serve as a valuable supplement to a doctor’s clinical knowledge.

During a telephone interview, Mr. Maude emphasized that the clinician is directed to relevant literature about these conditions and provides information about the gold-standard treatment for each illness. Isabel has correctly diagnosed diseases in several complex scenarios, and the American Medical Association has selected Isabel for its new physician portal.

Naturally, physicians might be skeptical of a powerful computer program that could be perceived as a substitute for the clinical experience that medical professionals have accumulated over years of training and with their thousands of patient encounters. However, according to Jason Maude, the system’s development was not meant to replace a doctor’s clinical experience; instead, he explains, Isabel can serve as a valuable supplement to a doctor’s clinical knowledge.

When should Isabel be used?

Decision-support systems should not be relied on in every case. A physician’s clinical training and the ability to evaluate the severity of subjective symptoms cannot be replicated by a computer program. However, a system like Isabel can be a valuable resource for learning about patients with atypical symptoms and those patients who are not responding to traditional treatments. Isabel can also be integrated into the teaching curricula of medical education at all levels. Encouraging physicians-in-training to compare their own differential diagnoses with those supplied by Isabel could both supplement their knowledge and give them greater confidence when they treat patients. A system like this is especially relevant to P&T readers; it could reassure the clinician that the right drug is being administered correctly by removing doubts about dosing and reducing errors in prescribing. Isabel has the potential to improve quality and safety in our institutions.

Most important, decision-support systems such as Isabel may serve as a way to usher in an important change to the culture of medicine. It is impossible, even for subspecialists, to know everything about every disease that they encounter in practice. Physicians, as a rule, do not tolerate uncertainty well; many physicians feel that uncertainty can mask deficiencies within their knowledge base. However, providing a new generation of physicians with decision-support tools can help eliminate these fears and improve care by encouraging compliance with standards established by evidence-based medicine.

As always, I’m interested in your views. My e-mail address is david.nash@jefferson.edu. Please visit my blog at http://nashhealthpolicy.blogspot.com.

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REFERENCE