
Can't ID a Difficult Rash? Digital Photos Can Help: Software program part of anti-terrorism efforts

Prior to spring 2004, the ED staffs at Ocean Springs (MS) Hospital and Singing River Hospital in Pascagoula, MS, would diagnose patients the old-fashioned way when treating unusual skin rashes. They would refer to medical texts which, if they were lucky, contained photographs of the rashes in question, and then make their diagnosis.

Today, all that has changed. ED physicians and clinicians treating such patients can go to their computers and access a software program called VisualDx, a point-of-care diagnostic and management system from Logical Images in Rochester, NY. The software program, which allows staff to compare digital photos to patients' rashes, covers more than 500 conditions that are illustrated by more than 8,700 digital images. In addition to rashes that could have been caused by terrorist activity, it can

help identify common skin rashes and irritants such as chickenpox and allergic reactions to certain drugs.

Used primarily in emergency departments, VisualDx is a point-of-care diagnostic and management system that helps physicians and clinicians diagnose and treat patients with questionable skin rashes that could be the result of bioterrorism.

Ocean Springs and Singing River are among 17 hospitals in the state that have received the specialized software as part of their bioterrorism preparedness plan. The funding was made possible by the Mississippi Hospital Association's Office of Emergency and Terrorism Preparedness and the Mississippi State Department of Health.

While no bioterrorism victims have been identified to date, ED managers at both facilities are enthusiastic about the program. They note it is being used frequently by staff as an education tool to refresh their memories about various skin rashes.

"The program "helps us quickly identify presenting complaints we don't normally see," says Carolyn Gilbert, RN, the ED nurse manager at Ocean Springs.

When staff were required to use text books, they sometimes would see something similar, but not quite the same, she recalls. "Now, we have a much better chance of pinpointing the exact kind of rash it is [and determining] is this something that should cause us concern, or do we just need to prescribe an antibiotic?" Gilbert says.

Charles Howard, RN, ED nurse manager at Singing River, agrees. "The great difference is the fantastic pictures this software provides," he says. "Most of them are high-quality digital photos, so you can compare what you see

in person to the usually numerous pictures of rashes you can input into the system."

The system itself is simple to use, adds Howard, who notes that all of the ED's computers allow access to the Internet-based product. "You just type in the patient's demographic information and symptomology and add other information, such as whether they have traveled outside the country, and it narrows the field down to what the rash could be," he explains.

Sometimes the software will offer a top 10 list of possible causes, or it may offer just one or two, Howard says. "Then it gives you other symptomology you haven't thought about, which you can then ask the patient to verify," he notes.

Training staff to use the software was simple, Howard says. Initially, the company provided some training for a core group of physicians and nurses, and then they trained the rest of the staff, he recalls. The training took about 90 minutes, Howard says.

"It's a very simple product to use," he says. "In fact, I

took the tutorial even before we had the inservice, and learned as much by myself."

Neither the Singing River nor the Ocean Springs EDs have identified bioterrorism victims through the VisualDx software so far -- but that doesn't mean the ED managers haven't found it to be of value.

"We used it one time to diagnose an obscure rash," recalls Gilbert. "It was nothing horrible, but we were glad we had the ability to be able to do that."

In addition, her staff often use the system as an education tool, she says. "My staff and I will regularly type in information -- symptoms, and so forth," says Gilbert. "It's a good learning tool."

Singing River's ED staff also use the system for education, Howard says. "To this point, it's been used pretty much to increase our knowledge," he says.

Soon, both facilities will be required to make a more formal evaluation. The program is being underwritten by the state for one year, after which time the hospitals will have to pay for it themselves. "That will be an administrative decision, but I certainly would recommend we do it," Gilbert asserts.

Howard agrees. "I think we will probably keep it," he predicts. "If nothing else, it has been a very good educational tool for our ED

docs and nurses, and you can't get too much of that."

[Editor's note: While Logical Images would not reveal the price of VisualDx, a company spokesman did say that the renewal rate after the first year typically is 15% of the initial cost of the software.]

For more information on using software to diagnose patient rashes, contact:

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