In the Spotlight

Web Expansion: Disease Exposure and Notification

By Courtney McCain

The "Spotlight" article from the summer 2008 EMS Chief Advisor continues here. To read the first half, see the print edition found on www.iafc.org/emsSection under Resources > Newsletters/Columns.

OSHA laws already in place

…Rapid testing for HIV, for example, can be done in 10 minutes. The test also can thwart the otherwise unnecessary, prophylactic use of antiretroviral medications.

"Rapid testing needs to be done, and hospitals are to do those rapid tests or it's an OSHA violation," West said. "And then we won't have as many people put on these drugs."

"We really don't have a lot of proof that the antiretrovirals given prophylactically are effective, and we have had cases where they didn't work," West said. "Also, we know nothing about the long-term effects of giving these drugs to healthy people. These are mostly inappropriately prescribed, and that's dangerous, as well as costly."

Another side effect of the reauthorization could be psychological. Personnel who suspect they've been exposed face a long-term, lingering hell of uncertainty if they aren't informed of a patient's disease status.

"Both the Ryan White [Act] and OSHA regulations defer to the state testing laws," West said, adding that each state organization could help tip the balance by working to improve state law. "There are some really bad state laws out there that need to be redone. The time is right to bring these issues into more uniformity."

State laws are as diverse as they come, either fully covering responders or leaving them with virtually nothing. West said that in addition, "we've been getting calls for months by departments being told by hospitals that they don't have to do source testing for (prehospital providers) because they aren't hospital employees.".

Bad bugs are already here

Removal Fears of a future influenza pandemic increased last winter, when two unanticipated strains of flu struck hard, especially in the geriatric population. That year's flu vaccine, which had been developed a year before and didn't include those strains of the virus, was almost ineffective.

"We are not at the point where we have a treatment for any flu or any other virus, other than supportive care," Augustine said. "That's one of the myths that we struggle against—that every time there's an outbreak, there will be a treatment, a pill to pop or something like it."

Both Augustine and West agree that methicillin-resistant Staphylococcus aureus (MRSA) is becoming a big concern, even among individuals with strong immune systems.

"We had an outbreak in a couple of the recruit fire classes in Atlanta several years ago, and we had to take steps in controlling that outbreak," Augustine said. "It really disrupted their training for awhile, but ultimately within a month their members were back in training or on duty."

There are different strains of MRSA, their potency often dependent on where it's acquired and which host they inhabit. For years, drug-resistant bacteria have thrived in high-density areas such as hospitals, jails and nursing homes. Community-acquired MRSA is the so-called next generation.

"We don't understand how community MRSA is spread, but so far there isn't a good test for it," Augustine said. Most of the time, community-acquired MRSA looks like a bug bite.

"That's the presenting symptom: 'It looks like I was bit by a spider,'" Augustine said. "And then we need to be aggressive with treatment, with draining of abscesses and we need to be smart about the use of antibiotics so further complications don't develop."

Smart antibiotic use might have prevented drug-resistant forms of disease in the first place, West said.

"We are over-prescribing drugs when they are not needed," West said. "Everybody wants to be scared, but nobody will do the basic things, like washing their hands. We need a basic understanding of disease transmission and risk. The disease process has got to be part of training so we can build a comfort level."

Education imperative, but largely pushed aside

West and Cross notified various publicsafetyWest is excited about the prospect of working with the task force and addressing many misconceptions about dealing with infectious diseases. In many paramedic curriculums, immunology is not heavily focused on and that has led to a general lack of understanding about the topic.

"Education has got to turn around," West said. "OSHA, in the blood-borne pathogen regulations, hit on a key point about education, that there needs to be a qualified instructor, and that has not been complied with in most departments. They've told someone, 'you're the training officer, so you teach this,' and when they don't understand what they're teaching, that's a problem. That's part of why there's so much misinformation out there."

In an environment where hospitals may or may not release information to providers, correct understanding of basic disease pathology and management of an exposure will be imperative, West said.

"Because people don't understand the diseases, they've just focused on PPE," West said. "No one is focused on post-exposure management, understanding the diseases, understanding the actual risk. And they

blow risk out of proportion."

Task force summarizes

In an attempt to redirect grumbling from preAs deputy chief of operations of Farmington Hills (Mich.) Fire Rescue, Kevin Bersche knows most chiefs already have enough on their plates without needing to sift through stacks more paperwork on infectious diseases. Bersche joined the task force in April.

"Fire chiefs have got to stay on top of this, but there are so many things they've got to do already," he said. "One of the roles of this task force is to filter out this information, act as a summarizer. The Ryan White Act's reauthorization certainly did impact our work with emerging diseases, and we want chiefs across the country to be prepared."

Catching community trends is just as important. Prehospital providers work on the front lines and often are among the first to notice spikes in disease activity. Isaacson's department uses computer software to help track trends in calls received by computer-aided dispatch systems.

"If we get a call type activity peak, my pager is alerted," Isaacson said. "There isn't software that can do the same thing on the national scale, but our hope is that by monitoring the CDC we can detect those trends and start gathering information for members."

Task force members are advocating early preparation for next year's flu season.

"We are up against a battle of time, and like never before it is vital that the designated infection-control officer be notified immediately," Isaacson said. "We're trying to be more aggressive in our follow-ups, which is how we should be operating anyway. We have to be aggressive, tenacious and professional in our requests. Since we're on the front lines, we're kind of the canaries in the cage. We need to be ever vigilant." ✠