

Issues up close

New interest in old health threat

By Susan Trossman, RN



Nurses play a vital role in monitoring and caring for people with TB.

ANDREW SPEAKER probably never expected to become the object of a media frenzy. But the story of the transatlantic traveler—initially diagnosed with extremely drug-resistant tuberculosis (XDR TB)—is one of several recent high-profile cases that have managed to turn TB into a hot-button topic among the American public once again.

“When we went into the community to talk about TB pre-Andrew Speaker, many people were surprised it still existed in this country,” says Mary Goggin, MPH, RN, nursing program manager with the Denver Public Health Tuberculosis Program. “But as long as we experience globalization and have countries that cannot effectively tackle TB, we will continue to see cases here.”

Goggin is among the many RNs on the front lines of care—identifying persons with TB as well as keeping the disease in check. The Colorado Nurses Association member and others agree that no matter where nurses work, it’s vital they have basic information about TB and the tools they need to keep patients, and themselves, safe.

As part of its long-standing mission, ANA has worked with nurses, other healthcare organizations, and policymakers at every level to implement safe and healthy working conditions.

In a recent victory, ANA rallied nurses nationwide to contact congressional members to explain the importance of aggressive infection control, and to urge them to oppose the so-called “Wicker amendment.”

The amendment, which U.S. Rep. Roger Wicker (R-MS) has successfully championed for the past 3 years but was dropped this summer because of inadequate support, would have lifted a requirement for annual fit-testing of respirators used to protect healthcare workers. Fit-testing ensures that the respirators provide a solid seal around a worker’s face to protect against airborne biohazards, such as avian influenza, anthrax, and TB.

ANA also has lobbied for adequate funding to support a solid public health infrastructure to ensure the efficacy of long-standing programs, including TB surveillance.

The Emergency Nurses Association (ENA), an organi-

zational affiliate of ANA, also continues to promote RN and public safety through guidelines outlined in a 2003 position statement on TB.

Basic information

There are many myths surrounding TB, partially stemming from the inability of the public and even some healthcare professionals to differentiate between TB infection, which is latent, and TB disease, which may be active.

Myths include that TB is incurable, hereditary, or confined to lower socioeconomic groups, says leading infectious disease expert Felissa R. Lashley, PhD, RN, ACRN, FAAN, FACMG, dean and professor at Rutgers College of Nursing. Another common misperception is that a positive skin test is indicative of TB disease, as opposed to merely indicating that the person has been infected.

Mycobacterium tuberculosis is spread through the air when a person with active TB of the lungs coughs or sneezes. People close by who breathe in these bacteria *may* become infected. In some people who become infected, TB bacteria overcome the body’s defenses and begin to multiply, resulting in active disease. In others, the immune system walls off the organisms, so the infection is latent. Latent infection, however, can progress to active disease, especially in those with impaired immune systems. Treatment is available for latent TB infection and TB disease, which can be fatal.

“It’s hard to transmit, yet it kills a lot of people worldwide,” says Sherri Almeida, DrPH, MSN, RN, CEN, FAEN, a member of the ENA Board of Directors and a Texas Nurses Association member.

The World Health Organization reported that an estimated 1.6 million deaths occurred from TB globally in 2005. In the United States, about 13,800 TB cases were reported in 2006, according to the Centers for Disease Control and Prevention (CDC).

Like other organisms, *M. tuberculosis* can morph into other forms that are resistant to the traditional drug regimen. A total of 124 cases of multidrug-resistant TB (MDR TB)—which can occur if people don’t take their TB medication regularly or come from areas of the world where drug-resistant TB is common—was reported in the United States in 2005, according to the CDC. Between 1993 and 2006, 49 XDR TB cases were reported in the United States.

It’s the harder-to-treat cases that recently made head-

lines. Controversy swirled around Speaker because of differing accounts about his clearance for international travel. Speaker later was diagnosed as having the less severe MDR TB and had surgery to remove a portion of his lung.

In Arizona, the debate focused on whether it was appropriate to quarantine a 27-year-old—also initially diagnosed with XDR TB—on a jail unit of an Arizona medical center for nearly a year. Robert Daniels reportedly endan-

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gered others by going out in public without a mask. He eventually was diagnosed with the less severe form and treated at the same Colorado hospital as Speaker.

“Placing someone in quarantine because of noncompliance is not new—and may not be the best thing to do,” says Lashley, a New Jersey State Nurses Association member. “But we must balance the health of the public against the rights of one person. And the most disturbing aspect of the Speaker case is that it showed the holes we have in screening people and safeguarding international travel.”

In Colorado

The Denver Public Health TB Clinic logs about 20,000 patients visits a year—including multiple visits per patient, according to Goggin, who’s responsible for TB control and prevention for the Denver metropolitan area. Staff include four full-time nurses and one half-time nurse who manage roughly 9 to 15 active cases of TB each.

Because Colorado law requires persons with active TB to be observed taking their medications to prevent MDR and XDR TB, patients can feel as if nurses don’t trust them, Goggin says. “So the most important role of the nurse is to build a relationship with the person, because treatment for TB is lengthy—6 to 9 months—and there can be unpleasant side effects.”

And although outreach workers generally observe patients taking their medication, nurses are still responsible for a portion of that observation. Nurses also perform initial and periodic patient assessments; communicate and potentially assess contacts of persons diagnosed with active disease; track trends in the TB

cases; and speak to community groups about TB.

Additionally, they screen high-risk populations, such as immigrants, the homeless, and healthcare workers, and offer persons with latent TB preventive therapy.

To ensure that staff is safe, the clinic is fitted with negative-air-flow rooms. Persons who are obviously symptomatic are quickly escorted from the waiting room and into a private room. And high-risk patients are asked to wear masks, which they do willingly. To this day, none of the nurses have tested positive for TB because of their work.

Working safely

“When it comes to protecting themselves, nurses need to feel empowered,” Goggin says. “If they suspect that someone who comes into their ED or clinic has an active case of TB, they need to know it’s okay to ask the patient to put on a mask.”

“And nurses need to have a picture in their head of what TB looks like.”

Getting the information to form that picture—which entails knowing the high-risk populations and typical symptoms (including a forceful cough, fever, and night sweats)—is a shared responsibility among RNs, employers, and nursing program faculty, Lashley adds. Professional associations also have developed educational materials to protect nurses.

“TB has always been a concern among ED nurses and other providers,” Almeida says. “But staff tends to be more afraid of blood than other things, and that shouldn’t be the case.

“I encourage nurses to take precautions and put a mask on the patient or themselves—especially if the patient is actively coughing and has a fever.”

To further minimize healthcare worker risk, ENA’s position statement recommends that ED staff develop triage protocols that identify patients at risk for TB immediately when they present, create policies that allow for patients with active disease to be transferred quickly to TB control rooms, and improve communications with local public health departments to ensure appropriate follow-up care and medication compliance.

ANA has a brochure, *Preventing Transmission of Tuberculosis*, that lists patient characteristics, environmental factors, and seven steps for an effective TB prevention program. It’s available online at www.nursingworld.org.

Almeida notes that the focus lately has been on preparing for pandemic influenza and other major disasters, and rightly so. “But we need to find a balance and be able to look out for and manage TB, so we don’t end up with a TB pandemic,” she says. ★

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