



Zika:

How to keep travel safe during the health threat

By Marcia Frellick

The World Health Organization in February declared the spread of Zika a public health emergency, citing the suspected link between pregnant women infected by the virus and microcephaly in fetuses. In April, the organization stated there is a “scientific consensus” that Zika causes both microcephaly and Guillain-Barre syndrome. Recent case reports suggest there also may be a link between Zika and other neurological abnormalities such as myelitis (inflammation of the spinal cord) or brain abnormalities on scan in the absence of microcephaly. Although symptoms of Zika are usually not severe — primarily rash, fever and aches — the risks to pregnant women, their babies, as well as adults have left the public concerned about how to stay safe as the vacation season ramps up.

RN sees Zika case years back

Although the Zika virus has only recently become commonly known in the U.S., New York nurse practitioner and Columbia University DNP candidate Dyan Summers’ experience with it dates back more than two years when she diagnosed the first case brought back to the country by a recreational traveler in 2013.

Summers, NP-C, MPH, CTM, who specializes in tropical disease, travel medicine and home care, also is a Jonas Nurse Leader Scholar and, as part of her work in the program, wrote a paper on her Zika case experience, which was published in the *Journal of Travel Medicine* in December 2015. The paper examined the case of a 48-year-old man with a pervasive rash who, in December 2013, returned from his travels to Ecuador, Peru, Bolivia, Chile, Easter Island, French Polynesia and Hawaii, and came into the New York branch of the Traveler’s Medical Service where Summers worked, complaining of fever, muscle aches and a distinct rash. The patient’s illness was about to take Summers’ career in an unexpected direction.

When Summers saw the maculopapular rash (with both red smooth spots and bumps), her first thought was dengue fever. But

the patient, who had read about the Zika virus, suggested it might be Zika. He recalled being bitten by several mosquitoes — despite having applied a recommended repellent and using mosquito nets — and within a day of leaving French Polynesia, where there had been a Zika outbreak, developed rash, fever, fatigue and malaise. “I had heard of (Zika) ... but I honestly had to look it up,” Summers said.

Summers said her experience illustrates why it is important for nurses to listen to patients, even if their ideas seem far-fetched.

Summers sent blood samples to the New York City health department, which performed repeated tests to confirm the diagnosis. Zika and dengue both typically involve rash, joint and muscle aches and fever, but, “The thing that happens with Zika that does not happen with dengue is that you get conjunctivitis,” she said.

There is no vaccine for Zika. In most of those infected, the body takes care of the symptoms; that was the case for her patient, who took antihistamines for the rash and Tylenol for the aches. At the 30-day follow-up, he was symptom-free.

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Zika status at level 1

The Centers for Disease Control and Prevention upgraded its Emergency Response Activation Level for Zika to Level 1, its highest level, in February. This status has been assigned only three times before — for the Ebola outbreak in 2014, the H1N1 influenza outbreak of 2009 and Hurricane Katrina in 2005.

The CDC’s travel Zika travel alerts for several destinations — including South American nations, Belize, Puerto Rico and several others — stand at “Level 2: Alert,” which recommends that travelers follow “enhanced precautions,” as there is “increased risk,” and certain high-risk populations “may wish to delay travel to these destinations.” The CDC says pregnant women should avoid travel to affected countries, citing the Zika’s connection to fetal malformations, neurological disorders and fetal death, as well as the wider geographical distribution of the disease. The WHO says pregnant

women should be advised not to travel to these areas and that “pregnant women whose sexual partners live in or travel to areas with Zika virus transmission should ensure safer sexual practices or abstain from sex for the duration of their pregnancy,” according to the WHO website. In light of confirmed sexual transmission of the disease in the U.S., Summers agrees both men and women who decide to travel to affected countries should follow safer sexual practice, and offers the following travel tips.

- Use sunscreen first before repellent, so mosquitoes land first on the repellent.
- Consult the CDC website for recommended repellents. (“When used as directed, [Environmental Protection Agency]-registered insect repellents are proven safe and effective, even for pregnant and breast-feeding women,” according to the CDC.
- Keep in mind the mosquito that carries Zika bites aggressively during the day, which may mean mosquito-net protection during naps.
- Wear long-sleeved tops and long pants.
- Talk with your healthcare provider about any concerns before you travel or any symptoms you have upon your return.

Nursing’s important role

Nurses have a large role to play in recognizing symptoms and educating patients that the virus will spread in the U.S. “You have to remember that you have to have a particular mosquito that transmits Zika in your area,” she said. “Most places don’t have that mosquito. It has to bite. And only the female mosquitoes bite.”

The Zika virus is spread by the female *Aedes* species mosquito (*A. aegypti* and *A. albopictus*). The *Aedes* mosquito also:



Transmits the dengue and chikungunya viruses



Usually bites during the morning and late afternoon/evening hours



Lives indoors and outdoors



Lays eggs in and near standing water

Source: CDC.gov/zika/transmission



Dyan Summers, RN

More on Summers

As of April 20, the virus had spread to more than 40 countries or territories in Central and South America. Summers was first drawn to tropical disease in that region in 1993, while she was working toward her BSN at Pace University in New York.

As part of that program, she volunteered to help build a water supply system in Nicaragua. During the project, she was moved by the locals who approached the team for medication. Years later, she founded Healthcare International, bringing healthcare to the indigenous people of Venezuela, and recently wrapped up operations there after 15 years of service.

Nurses also should reassure patients that the U.S. has mosquito-control programs and has protections in place that are not available in other countries. “When you see the level of spread in the developing world, it’s not the same as in the U.S. because our public health infrastructure is excellent,” she said. “That’s the message that’s really important to get across.”

According to a Feb. 16 article at CNN.com, when it comes to reproduction, men should be more concerned than women about their risk for developing Zika after visiting a country where an outbreak has occurred. “We’ve measured the virus in the blood of people who’ve been infected, and it usually clears the bloodstream in five to seven days, or 10 days at the most,” said Anthony Fauci, MD, director of the National Institute of Allergy and Infectious Diseases, in the article.

However, it is unclear how long the virus lasts in semen, and a man who has “recovered” from the illness may still be able to infect a sexual partner.

Watching for any signs of Zika and talking with patients about what they need to know and do will spotlight nursing’s role in the outbreak, Summers said. “Nurses are trusted,” she said. “Own your power as a nurse.” •

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