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Antibacterial resistance deemed a public-health crisis

Health professionals are losing the fight against antibiotic-resistant “superbugs” and few drugs are in development to counter this growing threat, warned infectious diseases experts at a briefing in New York City, USA (April 30). “Immediate national action” is needed to encourage judicious use of antibiotics and better infection-control practices, urged speakers from the Infectious Diseases Society of America (IDSA), the Society for Healthcare Epidemiology of America, and the Society of Infectious Diseases Pharmacists.

“Resistance occurs as a result of antibiotic use, and we’re using tonnes of antibiotics. And every time you use an antibiotic, either in food production or by prescription, you affect not just the person, but all living organisms and all future living organisms”, IDSA representative Martin Blaser (New York University School of Medicine, NY, USA), told *TLID*. “Globally, every time a child comes in with an earache and is given an antibiotic, it puts enormous pressure on the normal respiratory flora. Thus, close to 40% of infections resulting from *Streptococcus pneumoniae* are resistant to penicillin.

We’re already seeing other infections that fail to respond to the first or even second antibiotic prescribed. We’re running out of options.”

Blaser decried the continued use in the USA of subtherapeutic levels of antibiotics to make feed animals gain weight. “If we banned antibiotics from

Staphylococcus aureus

use in the poultry industry (as has happened in Scandinavia and England), the price of poultry would probably go up 1 or 2 cents a pound—a very, very marginal effect. And, if you do the analysis, what it is costing society, in health consequences, is much more. So why aren’t we banning such things? There are important interests that want to keep antibiotics in food animals—

pharmaceutical companies that sell [the drugs], and a food industry that wants to produce food at the lowest cost. What we need is political will”, Blaser explained.

Could resistance be contributing to the emergence of severe acute respiratory syndrome (SARS)? “There’s no obvious connection”, Blaser told *TLID*, “but when people get sick and are in the hospital for a week or more, they are at increased risk of acquiring a resistant nosocomial infection. People generally die from SARS after a long hospital stay, and nosocomial infections may well be playing a role”.

Robert Weinstein, chair of the US Healthcare Infection Control Practices Advisory Committee, presented strategies for clinicians to prevent antimicrobial resistance in hospitalised patients, including vaccinate, get catheters out quickly, treat infection not contamination or colonisation, know when to say “no” to vancomycin, and prevent transmission of resistant organisms to other patients (see <http://www.cdc.gov/drugresistance/healthcare>).

Marilynn Larkin

West Nile virus warning for Canada

Canada has been placed on alert for a possible spread of West Nile virus (WNV) to all parts of the country in 2003. The virus was initially reported in southern Ontario in 2001, although there were no human cases at that time. The next year saw WNV move west to Manitoba and Saskatchewan and east to Quebec and Nova Scotia. Most of the 400 or so human cases were located in Ontario, with a few in Quebec.

WNV is a flavivirus transmitted by the bites of at least 50 species of mosquito that can infect and cause disease in people, birds, horses, and many other animals. In human beings, infection consists of fever, frontal headache, muscle aches, swollen lymph nodes, and skin rash.

The alarm has been sounded by Harvey Artsob, head of zoonotic diseases and special pathogens at the National Microbiology Laboratory, Health Canada, Winnipeg. “Based on the pattern of spread of WNV in North America to date, we have to be worried that the virus will spread further within Canada. Specifically, we are concerned that it will move to the westernmost provinces of Alberta and British Columbia, and we are also monitoring the situation on the eastern seaboard”, he said.

With regard to controlling the potential outbreak, Artsob says, “At this point, we cannot really halt the progression of the virus. We can only undertake surveillance as an early warning system to tell us if the virus is present, and institute mosquito

control in populated areas perceived to be at risk”.

According to Ted Leighton of the Saskatchewan-based, Canadian Cooperative Wildlife Health Centre, “Surveillance based on finding dead crows, and testing them for infection with WNV has proven to be the most sensitive method of detecting virus activity in an area. It picks up virus activity weeks to months in advance of significant risk of human infection”. Although only a few people seem to become ill with the infection, “WNV is a new virus in North America and its behaviour is quite unpredictable at present. Infection rate will depend on complex ecological interactions between wild birds, mosquitoes, and the virus”, warns Leighton.

Cathel Kerr