BRITAIN WARNS OF BOTULISM RISK IN HEROIN USERS

6 November (Reuters Health [Richard Woodman])—Britain’s Public Health Laboratory Service (PHLS) has alerted clinicians, drug services, and coroners to a spate of botulism in heroin users.

It said 6 cases of potentially fatal wound botulism had been reported in injecting drug users in the United Kingdom (UK) since August, possibly because their drugs were contaminated with the anaerobic bacterium *Clostridium botulinum*.

"Injecting drug users are susceptible to wound botulism when anaerobic conditions exist at injection sites," the PHLS added in a statement on its Web site. It advised drug users to avoid injecting the drug and to smoke heroin if necessary."

"The injection of substances that increase tissue damage may facilitate the growth of anaerobic bacteria and therefore injecting drug users should try to use as little citric acid as possible to dissolve heroin and should avoid the injection of mixtures of heroin and cocaine.

"They should also be advised to seek urgent medical attention if they develop swelling, redness, or pain at injecting sites," the statement said.

Reports of wound botulism in injecting drug users are a relatively new phenomenon with no clinically diagnosed cases in the UK or Ireland up to the end of 1999. There were, however, 6 reports in 2000, 4 in 2001, and 5 in February 2002.

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**Editor’s comment.** This story serves as a reminder of the potential for wound botulism to occur in injection drug users. However, to put these numbers and headlines into perspective, the number of cases of wound botulism in the United States is much greater. In 2000, Werner et al. (Clin Infect Dis 2000;31:1018–24) reported a total of 127 cases of wound botulism identified in California during 1951–1998, of which 105 occurred in injection drug users. These patients primarily used “black tar” heroin (BTH) that had originated in Mexico. According to a communication to ProMED-mail from Dr. Werner on 28 February 2002 (archive number 20020228.3655), since that publication in *Clinical Infectious Diseases*, more cases have subsequently been identified. Specifically, in 1999, another 37 laboratory-confirmed cases of wound botulism were identified in injection drug users; 14 more were identified in 2000, and 20 more were identified in 2001.

According to Dr. Werner, these cases represent ≥75% of the cases of wound botulism in injection drug users identified to date in the United States, and they reflect an ongoing epidemic among injection drug users that began in California around 1994. Cases there have occurred disproportionately among Hispanics and women, and major risk factors have been the route of administration (e.g., by “skin popping”) and the amount of BTH injected subcutaneously.

FDA APPROVES RAPID HIV-1 ANTIBODY TEST

7 November (Reuters Health)—The US Food and Drug Administration (FDA) has approved a quick, simple test for HIV infection that requires only a drop of blood and can give accurate results in as little as 20 minutes.

OraSure Technologies, Inc., based in Bethlehem, Pennsylvania, previously received conditional FDA approval for its OraQuick Rapid HIV-1 Antibody Test (see Reuters Health report for 13 May 2002).

The OraQuick Rapid HIV-1 Antibody Test is more rapid that those now used widely, which can take up to 2 weeks, said Secretary of the Department of Health and Human Services, Tommy Thompson.

"It’s simple, accurate, and very fast," said Thompson, who announced the FDA’s decision at a Washington news conference. …"Countless more Americans will be able to learn their HIV status."

About 1 in every 4 of the 950,000 people infected with HIV do not know they are infected, Thompson said, which makes an easier test that can be widely used an important public health tool.

FDA and National Institutes of Health officials said that the approval will overcome the most daunting problem with current HIV testing methods: the lag between the test and the results. This not only deters individuals from seeking testing: about 8000 who are tested each year never return for their results.

The test appears to have a greater than 99% specificity and sensitivity. However, one drawback is that, because it detects antibodies to HIV-1, it may not yield positive results for 3 months or longer after HIV-1 infection occurs.

The OraQuick Rapid HIV-1 Antibody test needs no refrigeration, and enough blood to run the test can be obtained from a single needle prick. This means the product could be used in small clinics and other settings where traditional tests are hard to administer.

The test can now only be used in large laboratories, but Thompson and Lumpkin urged OraSure to apply for a waiver that would allow wider use of the test.

The test will also offer health care workers an important tool in cases where knowing a patient’s HIV status can immediately impact treatment. For example, pregnant women who have not been tested for the virus can be given the OraQuick test to determine whether antiretroviral prophylaxis should be offered to prevent vertical transmission. Similarly, health care workers who sustain a sharps
injury can use the test to determine the patient’s HIV status. OraQuick will be distributed by Abbott Laboratories.

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FDA LAUNCHES STUDY OF FATAL ELK, DEER DISEASE

4 November (Reuters Health)—The US Food and Drug Administration (FDA) will fund 2 studies to investigate whether chronic wasting disease (CWD), now spreading through the nation’s deer and elk herds, poses any risk to human health, Health and Human Services Secretary Tommy G. Thompson said.

CWD, like “mad cow” disease in cattle, belongs to a family of illnesses known as transmissible spongiform encephalopathies (TSEs). While there is no evidence that CWD poses a risk to humans, dozens of people—almost all of them in the United Kingdom—have contracted a fatal TSE called variant Creutzfeldt-Jakob disease, apparently after eating meat from cattle infected with bovine spongiform encephalopathy.

Colorado State University recently won an $8.4 million grant from the National Institutes of Health to establish a center focusing on CWD. The center will investigate how deer and elk become infected with CWD and whether the illness can spread to other species. Scientists there will also work on a vaccine for the disease.

Researchers at the National Institute of Allergy and Infectious Disease’s Rocky Mountain Laboratories in Hamilton, Montana, will study whether monkeys that eat meat contaminated with CWD prions, the abnormal proteins implicated in all TSEs, will develop CWD. Such primate studies are important in determining whether meat from a CWD-infected animal poses a risk to humans. Researchers at the labs have already begun investigating possible treatments for CWD.

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YOGURT BACTERIA SUPPLEMENTS OFTEN DUDS, DANGEROUS

12 November (Reuters Health [Alison McCook])—An analysis of 20 Lactobacillus supplements sold in Seattle stores reveals that only a fraction actually contained the live organism, which is a beneficial bacteria commonly found in yogurt.

“We found that they were often not at all what they said they were, or that they were contaminated with organisms that could act as pathogens in susceptible people,” Dr. Sheryl Berman of Bastyr University in Kenmore, Washington, told Reuters Health.

Specifically, Berman and coauthor Diane Spicer found that 16 of the 20 samples of the supplements contained ingredients that were not listed on the label, and 6 samples included an organism that could cause people to fall ill. For instance, the researchers found bacteria that can cause gastrointestinal illness and, importantly, are often found to be resistant to antibiotics.

Berman and Spicer presented their findings during the 130th Annual Meeting of the American Public Health Association.

Lactobacilli are beneficial bacteria that live in the body, generally in the mouth, intestinal tract, and vagina. People often take Lactobacillus supplements after being on antibiotics, which can wipe out these natural bacteria. Women who take antibiotics often lose their normal, healthy vaginal bacteria and take Lactobacillus supplements to restore that balance.

However, Berman and Spicer discovered that some types of supplements may have no benefit at all. In an interview with Reuters Health, Berman said that she and Spicer found that 4 out of the 20 supplements tested contained dead organisms.

The authors cautioned that the mistakes identified in these samples could have occurred at any point in the manufacturing process. Consequently, although brands tested in the study were manufactured by national companies, because the products were bought in Seattle, it is impossible to say if the findings apply to all Lactobacillus supplements sold throughout the United States.

Berman noted that she suspected the problem stems from a lack of quality control of the over-the-counter dietary supplements, which are not subject to the same safety and effectiveness standards that medications face.

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Editor’s comment. Review of the abstract of this paper from the program did not reveal what other organisms were isolated. However, the data are convincing that clinical research on probiotics that uses over-the-counter Lactobacillus supplements may be subject to major errors related to the content—or lack—of the active ingredient.