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LESSON LEARNED

Biological Terrorism: Ensuring Adherence to Prescribed Prophylaxis Treatment

SUMMARY

During a suspected biological terrorist attack, public health officials must emphasize to patients receiving antibiotic prophylaxis treatment the importance of starting and continuing prescribed treatment.

DESCRIPTION

Anthrax Contamination at a Connecticut Postal Facility

Following the death of a Connecticut woman from inhalational anthrax on November 21, 2001, the Connecticut Department of Public Health (CDPH) concentrated its anthrax identification and treatment efforts on the region's postal facilities. These efforts included setting up and managing prophylaxis clinics as well as conducting environmental sampling.

Postal workers were given a ten-day supply of ciprofloxacin, and nasal swabs were collected at the clinics. All the nasal swabs tested negative for anthrax. No contamination was found in the regional post office; however, samples taken on November 28 and December 2 from four high-speed sorting machines in the regional distribution center tested positive for anthrax. Based on these results, the CDPH recommended that all postal employees at the regional facility receive a full, sixty-day treatment of prophylaxis. Ciprofloxacin treatment was later replaced by doxycycline.

US Postal Service officials, medical professionals, and union leaders conveyed information about the environmental tests and nasal swabs to the postal workers at a series of meetings. Officials reassured the workers by stating that, according to the CDPH, the possibility of exposure existed but was not high.

CDC Survey Tracking Adherence to Prophylaxis Treatment:

On December 10, the Centers for Disease Control and Prevention (CDC) conducted a survey of 100 randomly selected workers from the Connecticut regional postal facility to evaluate their adherence to the prophylaxis treatment and identify any influencing factors. The survey concluded that many postal workers took an insufficient amount of antibiotics. Out of the 100 workers surveyed:

- Thirty-two postal workers did not start prophylaxis treatment.
- Of the 68 postal workers who started the antibiotic treatment:
 - More than half reported missing doses.
 - A third had discontinued taking the antibiotic by the time of the survey.
- Fifteen postal workers from the higher risk group—those working on the high-speed sorting machines—were not more likely to begin or continue prophylaxis treatment.

Two reasons cited most frequently by all survey respondents for not beginning or continuing prophylaxis treatment were the low perceived risk of anthrax exposure and the side effects. This low risk perception arose from the negative results from both the initial postal facility tests and the nasal swabs. In fact, many postal workers accepted the prophylaxis simply to “have on hand” in case they “start to feel sick.”

The survey results indicate the need for public health officials to:

- Clearly communicate that potentially exposed persons begin and continue prophylaxis treatment.
- Explain that epidemiological tools such as nasal swab testing are only indicators of recent exposure and may not be used to determine who is at risk.
- Balance reassurance needs with risk explanations.
- Discuss side effects but explain that most will be mild.
- Explain how to minimize side effects.
- Identify which side effects indicate a need for greater medical assistance.
- Establish antibiotic “reminder programs” to assist in consistent and comprehensive treatment.

CITATION

Jennifer L. Williams, Sephanie S. Noviello, Kevin S. Griffith, et al. “Anthrax Postexposure Prophylaxis in Postal Workers, Connecticut, 2001.” *Emerging Infectious Diseases*. October 2002.

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