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**Program may improve physicians' knowledge about diseases caused by bioterrorism agents**

CHICAGO – An online education program improved physicians' knowledge about the diagnosis and management of diseases caused by bioterrorism agents, such as anthrax, smallpox and plague, according to a study in the September 26 issue of Archives of Internal Medicine, one of the JAMA/Archives journals.

In the event of a biologic attack, physicians will be first responders and represent the front line of defense, but little is known about the ability of physicians to appropriately diagnose and treat patients infected with bioterrorism agents, according to background information in the article. Physicians who are not prepared might be effectively taught to diagnose and treat patients presenting with any of these diseases through computer-assisted instruction, the authors suggest.

Sara E. Cosgrove, M.D., M.S., of The Johns Hopkins University School of Medicine, Baltimore, and colleagues conducted an online educational program for physicians from 30 internal medicine residency programs in 16 states and Washington, D.C. between July 1, 2003 and June 10, 2004. Six hundred thirty-one physicians completed the course, including a pretest assessment of their knowledge about diagnosis and management of cases of smallpox, anthrax, botulism and plague and a post-test assessment following the completion of the course.

On the pretest, correct diagnosis of diseases due to bioterrorism agents were smallpox, 50.7 percent; anthrax, 70.5 percent; botulism, 49.6 percent; and plague, 16.3 percent, (average, 46.8 percent) the researchers report. Correct diagnosis averaged 79.0 percent after completion of the course. Correct management of smallpox in the pretest was 14.6 percent; anthrax, 17.0 percent; botulism, 60.2 percent; and plague 9.7 percent (average, 25.4 percent). Correct management averaged 79.1 percent after course completion. Residents did not differ in performance based on years in training, although attending physicians (n=30) did perform better than residents.

"The significant improvement in posttest scores among responders at all levels of training suggests that physicians can be trained using an online case-based format to learn how to diagnose and manage infection caused by category A bioterrorism agents," the authors write. "This study demonstrates that physician knowledge about diagnosis and treatment of patients presenting with infection or exposure to a likely bioterrorism agent is poor, and adds physician education to the list of priorities the government should undertake to prepare for what many see as an inevitable event. The Internet can be used to distribute a curriculum to teach physicians to diagnose and care for patients exposed to or infected with a likely bioterrorism agent. Early recognition is essential to minimize the potentially devastating impact of a bioterror attack."

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