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Emerging Multi-Drug Resistant Infections Lack Standard Definition and Treatment

(NEWARK, Del. – March 24, 2014) Infection control practices for detecting and treating patients infected with drug-resistant bacteria vary significantly worldwide between hospitals, [Christiana Care Health System](#) researchers report in the April issue of *Infection Control and Hospital Epidemiology*.

Inconsistencies in the microbiological definition of multidrug-resistant gram-negative bacteria (MDR-GNB) among hospitals – along with differences in treatment protocol – could be contributing to an increase in multidrug-resistant bacteria, said Marci Drees, M.D., MS, FACP, DTMH, lead author of the study and the infection prevention officer and hospital epidemiologist for Christiana Care. Drees and her colleagues conclude that public health agencies should promote standard definitions and uniform treatment protocols in order to limit the spread of multidrug-resistant bacteria.

“Differences in definitions and practices for multidrug-resistant bacteria confuse healthcare workers and hinder communication when patients are transferred between hospitals,” Drees said. “The danger these inconsistencies represent affects not only individual patients and hospitals, but the broader community because patients are frequently transferred between health care centers, including long-term care facilities, furthering the spread of these bacteria. By promoting standard definitions and management of multidrug-resistant bacteria, we can eventually limit their emergence and their spread.”

Researchers reviewed results of an online survey of 70 hospitals, representing 26 states and 15 foreign countries, collecting information on how different hospitals detect and treat MDR-GNB. Researchers also collected information on how hospitals define these pathogens and whether patients are treated under the proper hospital precautions to prevent the germs from spreading through contact.

Researchers found that participating hospitals had up to 22 unique definitions for MDR-GNB, which determined whether staff wore gowns and gloves when caring for patients suspected to have the bacteria. Also, some hospitals isolated patients only when they found bacteria resistant

to three or more classes of antimicrobials, while others isolated patients if there was resistance to only one. The duration of isolation also significantly varied from hospital to hospital.

“We can better protect our patients by creating and standardizing global protocols to stop these bacteria from spreading,” Dr. Drees said.

Christiana Care uses an evidence-based protocol to treat multi-drug resistant pathogens, including MDR-GNB, and tracks measures related to hospital-acquired infections as part of its commitment to patient safety. In 2013, Christiana Care’s Infection Prevention Department was recognized with two HAI Watchdog Awards for its successful efforts in preventing health-care associated infections.

The study was published by the Society for Healthcare Epidemiology of America Research Network, a consortium of more than 200 hospitals collaborating on multi-center research projects. Co-authors on the study include Lisa Pineles, MA and Anthony D. Harris, M.D., MPH of the University of Maryland School of Medicine; and Daniel J. Morgan, M.D., MS of Veterans Affairs Maryland Healthcare System.

About Christiana Care Health System

Christiana Care Health System is one of the country’s largest health care providers, ranking as the 22nd leading hospital in the nation and 12th on the East Coast in terms of admissions. A not-for-profit teaching hospital affiliated with Thomas Jefferson Medical College, Christiana Care is recognized as a regional center for excellence in cardiology, cancer and women's health services, as well as for its Level-I trauma care and Level-3 neonatal intensive care (both highest capability). Christiana Care includes two hospitals with 1,100 patient beds, a home health care service, preventive medicine, rehabilitation services, a network of primary care physicians and an extensive range of outpatient services.

For more information about Christiana Care, visit www.christianacare.org/whoweare.

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