Emerging multi-drug resistant infections lack standard definition and treatment

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Infection control practices for detecting and treating patients infected with emerging multidrug-resistant gram-negative bacteria (MDR-GNB) vary significantly between hospitals. A study from the Society for Healthcare Epidemiology of America Research Network, a consortium of more than 200 hospitals collaborating on multi-center research projects, found this inconsistency could be contributing to the increase in multidrug-resistant bacteria. The study is published in the April issue of *Infection Control and Hospital Epidemiology*.

"Differences in definitions and practices for multidrug-resistant bacteria confuse healthcare workers and hinder communication when patients are transferred between hospitals," said Marci Drees, MD, MS, a lead author of the study. "The danger these inconsistencies represent affects not only individual hospitals, but the broader community because patients are frequently transferred between healthcare centers, including long-term care facilities, furthering their spread."

Researchers reviewed results of an online survey of 70 hospitals, representing 26 states and 15 foreign countries. The survey looked at how different hospitals detect and treat MDR-GNB, including microbiological definition of these pathogens and whether and how long patients are treated under contact precautions in the hospital.

The recent emergence of multidrug-resistant gram-negative bacteria (MDR-GNB) is a growing problem that is more difficult to detect and treat than the more commonly known MRSA (methicillin-resistant

Staphylococcus aureus).

No single test can determine whether bacteria are multidrug-resistant, and researchers found that participating hospitals had up to 22 unique definitions. These definitions determine whether or not a patient requires contact precautions. The variations in infection control practices for MDR-GNB were significant: Some hospitals isolated patients only when they found bacteria resistant to three or more classes of antimicrobials, while others would isolate if there was resistance to only one. Depending on which specific bacteria were found, the duration of isolation also varied greatly; from none to indefinite.

"Public health agencies need to promote standard definitions and management to enable broader initiatives to limit emergence of multidrug-resistant bacteria," said Drees.

More information: *Infection Control and Hospital Epidemiology* 35:3 (April 2014)

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