

Communication key to preventing spread of drug-resistant bacteria

September 20 2017

Communication breakdowns between care facilities can pave the way for outbreaks of infection, according to research on the spread of an extensively drug-resistant bacterium.

The OSU/OHSU College of Pharmacy teamed with the Oregon Health Authority and other collaborators on a two-year study of *Acinetobacter baumannii*, an opportunistic pathogen associated primarily with infections among patients who have compromised immune systems and are in health [care facilities](#).

Looking at multiple sites in the Pacific Northwest, the scientists identified 21 cases, including 16 isolates of *A. baumannii* that contained a rare gene responsible for resistance to the carbapenem class of antibiotics.

The patients' transfer history among the studied facilities and the isolates' genetic profiles illustrated how the organism spread from place to place, aided by a lack of interfacility communication that patients who were infected or colonized by *A. baumannii* were being transferred.

Jon Furuno, co-author on the study and an associate professor in the College of Pharmacy, noted that the findings support a recent Oregon law requiring written notification from the discharging facility to the receiving facility anytime a patient carrying a multidrug-resistant organism, or other [infection](#) requiring transmission precautions, is transferred.

Extensively drug-resistant *A. baumannii* can contain many [antibiotic resistance genes](#) that can be transmitted to other [organisms](#), he added.

"It just makes sense that you would want to alert a receiving facility if patients have a specific drug-resistant organism," Furuno said. "The discharging facility needs to include that information with the discharge summary or somewhere on the chart, and the receiving facility needs to know where to look for it."

The lead author is Genevieve Buser, a pediatric infectious disease specialist who worked as a Centers for Disease Control and Prevention Epidemic Intelligence Service officer based at the Oregon Health Authority when the study was done. Buser said communication can ensure appropriate contact precautions are taken.

"An entire chain of transmission can be prevented if staff at a receiving facility know about a patient's multidrug-resistant organism status," Buser said. "This outbreak might not have been identified if not for a new, limited, voluntary surveillance system in Oregon and an astute infection preventionist."

Reporting of extensively drug-resistant *A. baumannii* infection is not required by most public health jurisdictions in the United States, and clinical laboratories generally do not test for an organism's underlying genetic resistance mechanisms.

More information: Genevieve L. Buser et al, Failure to Communicate: Transmission of Extensively Drug-Resistant bla OXA-237-Containing *Acinetobacter baumannii*—Multiple Facilities in Oregon, 2012–2014, *Infection Control & Hospital Epidemiology* (2017). [DOI: 10.1017/ice.2017.189](#)

Provided by Oregon State University

Citation: Communication key to preventing spread of drug-resistant bacteria (2017, September 20) retrieved 17 April 2024 from <https://medicalxpress.com/news/2017-09-key-drug-resistant-bacteria.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.