

Drug-resistant bacteria carried by nursing home patients focus of study

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A Rhode Island Hospital and The Miriam Hospital study found that a small percentage of nursing home patients carrying multi drug-resistant bacteria are admitted to hospitals without showing symptoms caused by the bacteria. The research, published in the *American Journal of Infection Control*, highlights the importance of hospital and nursing home infection control practices.

Controlling the spread of such bacteria is paramount since infections caused by these microorganisms are associated with increased morbidity, mortality and cost.

"When patients with [drug-resistant bacteria](#) are admitted to hospitals, there is a potential for spread to others," said Leonard Mermel, D.O. ScM, medical director of the epidemiology and infection control department at Rhode Island Hospital and author of the study. "A better understanding of how such bacteria is transmitted between hospitals and nursing homes will enable us to develop control strategies."

Mermel and colleagues documented patients admitted to Rhode Island Hospital and The Miriam Hospital from area nursing homes in 2012. They screened these patients for the presence of carbapenem-resistant *Enterobacteriaceae* (CRE) since there is little data in the medical literature regarding how prevalent these drug-[resistant bacteria](#) are among asymptomatic nursing home patients at the time of admission to hospitals.

The researchers identified highly resistant bacteria in 23 of the 500 acute care hospital admissions from the nursing homes, seven of these were carbapenem-resistant *Enterobacteriaceae*. They found that the use of a feeding tube was associated with gastrointestinal carriage of these bacteria.

"Such information is helpful in better understanding transmission of such resistant [bacteria](#) between [nursing homes](#) and hospitals, helpful to focus efforts to reduce antibiotic pressure in nursing home settings, and to better assess the risks and benefits of feeding tubes in this patient population," said Steven Kassakian, M.D., a study co-investigator and a post-doctoral fellow in clinical informatics at Oregon Health and Science University.

Cheston Cunha, M.D., one of the study's co-investigators and director of the antibiotic stewardship program at Rhode Island Hospital and the Miriam Hospital, added, "Antibiotic resistance has been called one of the world's most pressing public health problems. When antibiotics fail, infections often last longer, cause more severe illness, require more doctor visits or extended [hospital](#) stays, and involve more expensive and toxic medications. Some resistant infections can even cause death. Because therapeutic options are few if infections occur with [antibiotic resistant bacteria](#), antibiotic stewardship and [infection control](#) measures are necessary in limiting the spread of these organisms in healthcare settings."

More information: Cheston B. Cunha et al. Screening of nursing home residents for colonization with carbapenem-resistant *Enterobacteriaceae* admitted to acute care hospitals: Incidence and risk factors, *American Journal of Infection Control* (2015). [DOI: 10.1016/j.ajic.2015.09.019](#)

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