

# New Research Points to Prevalence of Acinetobacter in the Community

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Posted on: 05/19/2010

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New research by Sengstock, et al. in the latest issue of *Clinical Infectious Diseases*, a journal of the Infectious Diseases Society of America, points to increased prevalence and resistance of Acinetobacter species in the community; they point to patients with resistant isolates being discharged to nursing homes and longterm acutecare facilities, thus introducing resistance to these facilities.

In their latest work, Sengstock and colleagues describe the epidemiology, resistance patterns, and outcomes of older adults with Acinetobacter infection in community hospitals. The researchers investigated the microbiology databases at Oakwood Healthcare System in Michigan (four hospitals with 632, 259, 199 and 168 beds) for clinical Acinetobacter cultures obtained from 2003 to 2008. Patients aged 60 years who were admitted from home or nursing homes were included. The researchers recorded the initial Acinetobacter isolate and susceptibility to eight antibiotics; cultures obtained 48 hours after hospitalization were categorized as hospital-acquired. Administrative databases provided patients' origins (home or nursing home) and discharge destinations (home, nursing home, longterm acutecare facility, another hospital, or hospice care or death).

The researchers report that 560 communitydwelling (mean age  $\pm$  standard deviation,  $74 \pm 8.6$  years) and 280 nursing home-dwelling ( $78 \pm 9.1$  years) patients had Acinetobacter isolated. According to the article in *Clinical Infectious Diseases*, "During this period, Acinetobacter prevalence increased 25 percent. In comparison of 2003 with 2008, Acinetobacter resistance to imipenem and ampicillin/sulbactam increased (from 1.8 percent to 33.1 percent), as did "panresistance" (resistance to all eight antibiotics; increase from 0.0 percent to 13.6 percent). Although resistance was stable in communityacquired isolates (resistance to 4.2 antibiotics), resistance increased among nursing home-acquired and nosocomialacquired isolates (from 4.5 to 5.7 and from 5.0 to 6.0 antibiotics, respectively). At discharge, only 25 percent of communitydwelling and 50 percent of nursing home-dwelling patients returned to their place of origin; the remainder required higher levels of care or died. After adjustment for age, length of stay, and origin, resistance to each additional antibiotic predicted a >20 percent increased risk for discharge to higher levels of care or death (odds ratio, 1.23; 95 percent confidence interval, 1.11-1.36)."

Reference: Sengstock DM, Thyagarajan R, Apalara J, Mira A, Chopra T and Kaye KS. MultidrugResistant Acinetobacter baumannii: An Emerging Pathogen among Older Adults in Community Hospitals and Nursing Homes. *Clinical Infectious Diseases* 2010;50:1611-1616.