

Coordinated intervention reduced prevalence of drug-resistant CRE in long-term care

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A new study found a nationwide effort to control carbapenem-resistant Enterobacteriaceae (CRE) in Israel reduced CRE cases by improving compliance of infection control standards and using a coordinated intervention focused on long-term care facilities. The study was published in the July issue of *Infection Control and Hospital Epidemiology*, the journal of the Society for Healthcare Epidemiology of America.

"As the global threat of CRE continues to rise, there is a need to better control and understand this bacteria," said Debby Ben-David, MD, a lead author of the study. "Broadening our focus to long-term care facilities made an impact and reduced the prevalence of these infections, demonstrating the need to look beyond acute care hospitals in our [infection control](#) interventions."

Since 2006, Israel has faced a nationwide outbreak of CRE throughout its healthcare system. A 2008 cross-sectional prevalence survey conducted in Israeli post-acute care hospitals (PACHs), similar to long term acute care hospitals in the U.S., revealed a high prevalence of CRE carriage in PACH patients. The transfer of colonized patients between [acute care](#) hospitals to PACHs and back again fosters the spread of these drug-resistant infections in healthcare institutions. Based on these results, the Israeli National Center for Infection Control (NCIC) initiated a multifaceted [intervention](#) in all PACHs, as part of a national program involving all healthcare facilities in the country.

The intervention included: 1) on-site assessments of infection control policies and practices; 2) CRE isolation guidelines targeted to long-term [care facilities](#); 3) mandatory census reporting of CRE carriers sent to NCIC to facilitate monitoring, compliance with guidelines and track infected patient movement into and out of these facilities; and 4) follow-up surveys of CRE carriage in patients to assess the impact of the intervention on carrier prevalence.

The four-year prospective cohort interventional study found a direct correlation between hospitals with a high infection control score from the on-site assessment and a lower risk of newly discovered CRE carriage. Healthcare facilities' compliance with infection control practices, as measured through on-site assessments, increased more than twofold (score of 6.8 to 14.2 out of 16) and the overall carrier prevalence decreased by approximately 25 percent.

The intervention, carried out in the context of a nationwide initiative to contain CRE spread in [healthcare facilities](#), was based on an understanding of the importance of centrally coordinated regional intervention to contain the spread of multidrug-resistant organisms.

More information: Debby Ben-David, Samira Masarwa, Amos Adler, Hagit Mishali, Yehuda Carmeli, Mitchell J. Schwaber. "A National Intervention to Prevent the Spread of Carbapenem- Resistant Enterobacteriaceae in Israeli Post-Acute Care Hospitals." *Infection Control and Hospital Epidemiology* [35:7] (July 2014).

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