

epiConnections

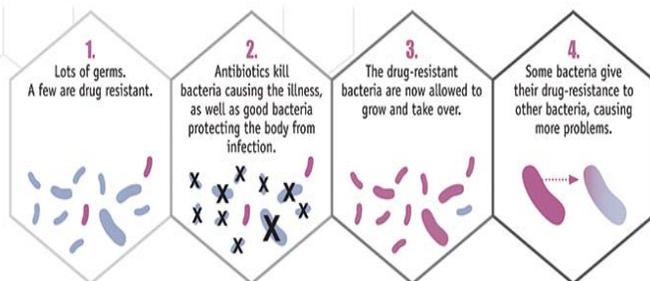
A BIMONTHLY NEWSLETTER OF THE COMMUNICABLE DISEASE AND EMERGENCY MANAGEMENT DIVISION OF BOULDER COUNTY PUBLIC HEALTH

New Colorado Tool to Reduce Antibiotic Resistance in Long-Term Care Facilities

In the United States, over 4 million people are admitted to or reside in nursing homes and skilled nursing facilities each year, and nearly 1 million people reside in assisted living facilities. Data about infections in these facilities, collectively referred to as long-term care facilities (LTCF), are limited. But it is estimated that between 1 and 3 million serious infections occur every year, resulting in an estimated 380,000 deaths.¹

It is estimated that up to 70% of nursing home residents receive 1 or more courses of systemic antibiotics during a year to treat infections, and it is estimated that 40-75% of antibiotics prescribed may be unnecessary or inappropriate.² As a result of this intense antimicrobial use, significant harm, including colonization and/or infection with antibiotic-resistant organisms, such as methicillin-resistant *Staphylococcus aureus* (MRSA), carbapenem-resistant Enterobacteriaceae, vancomycin-resistant enterococci, and extended-spectrum beta lactamase-producing gram-negative organisms, can occur. Antibiotic-resistant organisms can lead to dangerous infections that are untreatable, causing serious disability or even death.

How Antibiotic Resistance Happens



Antimicrobial Stewardship Programs

Improving the use of antibiotics in LTCFs to protect residents and reduce the threat of antibiotic resistance is a national priority. To address antibiotic resistance in LTCFs, the Centers for Disease Control and Prevention (CDC) recommends developing antimicrobial stewardship programs in these and other health care settings to promote optimal antimicrobial use. The seven core elements for antimicrobial stewardship

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Local Group Plans for Infectious Disease Threats

The next pandemic, epidemic, or cluster of life-threatening disease is difficult to predict. In recent history, our community has responded to or implemented surveillance, monitoring, or prevention measures for unexpected threats, such as HIV, H1N1 pandemic flu, Ebola, and Zika virus. Although each is unique in its etiology and necessary prevention and control response, the organizations tasked with responding remain fairly constant.

During outbreaks of Ebola in parts of West Africa in 2014-2015, you may recall that our local health care and public health professionals needed to implement extensive screening and monitoring of travelers returning from Ebola-impacted countries. The situation was complex and required many of us to implement new procedures at a time when guidance was evolving. In response, local leaders in infectious disease, health care, and emergency response created the Community Infectious Disease Emergency Response (CIDER) Team in Boulder County.

CIDER's purpose is to build relationships, communication processes, and an activation structure to strengthen community capacity and response to infectious disease emergencies. CIDER members are experts in emergency management or infectious disease and/or leaders of organizations that respond to infectious disease situations or emergencies. Through the group, members develop guidance and inform decisions about community and organizational response to infectious disease threats that may emerge in Boulder County.

Boulder County Public Health provides regular updates (i.e. emails, health alert faxes, conference calls, annual meeting) to the group about emergent infectious disease issues or elevated cases of specific diseases or

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Communicable Disease Control Program
 HIV Prevention Program
 Emergency Management Program
 Immunization Program
 TB Control Program

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- leadership commitment, accountability, drug expertise, action, reporting, tracking, and education - are summarized in the figure below. Additional information about the core elements of antibiotic stewardship, including checklists for implementing programs and tools for policy and practice actions, can be found at: <https://www.cdc.gov/longtermcare/prevention/antibiotic-stewardship.html>



Source: <https://www.cdc.gov/longtermcare/prevention/antibiotic-stewardship.html>

To help guide stewardship efforts here in Colorado, the Colorado Department of Public Health and Environment (CDPHE) recently completed the first statewide antibiogram, a tool that tracks resistance to antibiotics. The goal of the antibiogram is to help health care facilities track antibiotic resistance, put systems in place to counteract it, and help providers select the best antibiotics to use in specific cases. The antibiogram is available at: <https://www.colorado.gov/pacific/cdphe/hai-data>

References

- <https://www.cdc.gov/longtermcare/index.html>
- <https://www.cdc.gov/longtermcare/prevention/antibiotic-stewardship.html>

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conditions, including but not limited to:

- *Epidemiologic surveillance of communicable diseases and conditions*
- *Existing guidance when it is available or emergent guidance as it unfolds (e.g. what occurred during the recent Ebola crisis)*
- *Emergencies and/or response operations*

Fortunately, the team has not yet had to respond to a high-profile pandemic. Nonetheless, the established relationships and communication channels have proven to be very useful. For example, in 2017 the group convened to discuss topics of concern, including enterovirus D68. The discussion proved helpful in consistently implementing local prevention measures for hepatitis A among people who experience homelessness and people who use substances, since outbreaks had recently emerged across the country.

To learn more about CIDER and opportunities to link your organization with the group, please visit: <http://www.bouldercountycider.org/> or email Carol Helwig, Communicable Disease Control Program Coordinator at chelwig@bouldercounty.org.

To ensure that your contact information for the Colorado Notification System (e.g. Health Alert Network, or HAN) is correct, please email Karla Guardado at kguardado@bouldercounty.org.

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