Nursing homes can prevent infections through performance improvement collaboratives

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Each year, 150,000 U.S. nursing home residents will receive a urinary catheter—half of whom will develop a catheter-associated urinary tract infection (CAUTI). While 70 percent of facilities report having an infection preventionist (IP) on staff, many nursing home IPs often have limited time to advance their training on infection control.

But as a new assessment reports, participation in a national health collaborative that promotes evidence-based infection prevention and control (IPC) can curb the risk of infection by streamlining how IPC practices are shared among nursing home staff. The paper, published in the December issue of the *American Journal of Infection Control (AJIC)*, the journal of the Association for Professionals in Infection Control and Epidemiology (APIC), reviewed the benefits and challenges of the Agency for Healthcare Research and Quality (AHRQ)'s Safety Program for Long-Term Care, a national preventive program that was implemented from 2013 to 2016 and aimed at reducing CAUTI across U.S. nursing homes.

As reported in *JAMA Internal Medicine*, community-based nursing homes that participated in this project lowered CAUTI rates by 54 percent. The AHRQ project has developed a toolkit that reflects participant experiences.

"A national collaborative can empower IPs to play an active role in

supporting infection-related practice changes, while instilling a more robust resident-safety culture across U.S. nursing homes," said Sarah L. Krein, PhD, RN, the paper's lead author and a professor at the University of Michigan's Department of Internal Medicine. "With ample benefits and challenges identified, our research lays out how collaborative efforts, such as the AHRQ Safety Program, can be strengthened, and thus more powerfully used to promote change in the nursing home setting."

From March 2014 through September 2016, the AHRQ safety program provided more than 400 participating nursing homes with streamlined CAUTI prevention practices centered on improving safety culture, teamwork, and communication. The program used experts to train participating nursing home staff on the proper implementation of CAUTI prevention practices and safety culture tools. Participating facilities further engaged in peer-to-peer learning through web conferences, virtual and in-person meetings, and coaching sessions. The qualitative assessment, conducted from June through July 2016, collected program feedback from eight of the 33 organizational leads, and eight nursing home facility leads.

Interviewed leads reported strong benefits following the AHRQ Safety Program implementation:

- The AHRQ collaborative empowered nursing home IPs to speak with physicians and other team members regarding important patient decisions, including the necessity of catheters and the ordering of urine cultures. Prior to the AHRQ program, nursing home staff frequently ordered too many urine cultures, often failing to correctly collect the samples.
- Facility and organizational leads reported increased staff awareness of CAUTI prevention and willingness to modify current practice and educate other team members. Staff became

better equipped at identifying CAUTI symptoms, collecting urine samples appropriately, providing better catheter care, and both increasing and developing policies that encouraged the use of catheter alternatives.

Some participants expressed challenges including the amount of time needed to complete implementation, getting physician and staff support for the project, and logistical and technological obstacles. Researchers offered adaptations including establishing a more flexible curriculum with multiple modes of delivery, using modifiable education materials that are accessible for all staff levels, and incorporating peer-to-peer coaching and/or facility-specific strategies to address logistical barriers and staffing-related challenges.

"Preventing infections among nursing home residents is a national priority. We're excited by the learnings presented here and believe that programs such as the AHRQ Safety Program for Long-term Care can equip nursing homes to improve IPC practices and prevent infections," said Linda Greene, RN, MPS, CIC, FAPIC, 2017 APIC president. APIC was a member of the national project team.

"This program, built on the successes of prior CAUTI prevention programs, included the voices of long-term care staff via the nursing home safety culture survey and interviews," said Jay Bhatt, DO, president of the Health Research & Educational Trust and chief medical officer of the American Hospital Association. "The work and findings of the collaborative will strengthen and refine infection prevention interventions in long-term care settings." HRET staff led program management and implementation for the AHRQ Safety Program for Long-term Care.

"As this study demonstrates, AHRQ's program of research and implementation focuses not only on what should be done to reduce

infections, but also on the how," said James I. Cleeman, MD, Director of AHRQ's HAI Division. "Thanks to this study, we now have a better understanding of the factors that affect how infection prevention is done in nursing homes, which is critical for making care safer for nursing home residents."

Across the U.S., an estimated 180,000 of the 1.5 million nursing home residents may have an infection each day. Roughly 25 percent of residents return to a hospital due to infection, costing the U.S. health system an additional $4 billion per year.

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