

Infection Prevention in Nursing Homes

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Advancing Excellence Ombudsman Webinar
Series
February 25, 2014

National Center for Emerging and Zoonotic Infectious Diseases
Division of Healthcare Quality Promotion



Why infection prevention?

- ❑ **Nursing home residents are at increased risk of infections for many reasons**
 - Residents entering nursing homes require complex medical care which is associated with higher risk of infection such as, wound care and indwelling medical devices
 - Frailty, malnutrition, and other underlying medical conditions contribute to the increased risk of infections in this population
 - Living in a community environment with shared spaces can allow for easier spread of infections between residents, staff and visitors

Why infection prevention?

- ❑ **Greater attention on infection prevention and reporting in healthcare**
 - Hospitals, long-term care hospitals, inpatient rehab facilities all have infections included in quality reporting programs
- ❑ **Increased awareness of the role of infections in nursing homes**
 - Driver of antibiotic use and antibiotic resistant bacteria
 - Primary cause of transfers to hospital (30-day readmission)
- ❑ **Heightened surveyor awareness of infection prevention programs in nursing homes**
 - Significant revision to F441 interpretive guidance in Fall 2009
 - F441 citations are among the most frequent deficiencies identified

Common infections and causes

❑ Respiratory tract infections

- Outbreaks from Influenza and other respiratory viruses
- Bacterial pneumonia -- *Pneumococcus*

❑ Urinary tract infections

- *E. coli*, *Klebsiella* – antibiotic resistance is a major issue

❑ Skin infections

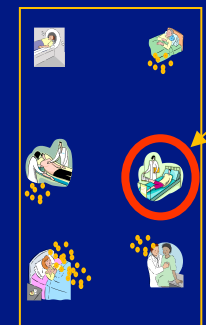
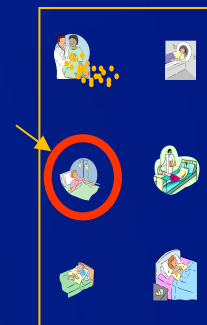
- Group A *Streptococcus*, *Staphylococcus aureus* – some strains are methicillin-resistant, known as MRSA

❑ Gastrointestinal infections

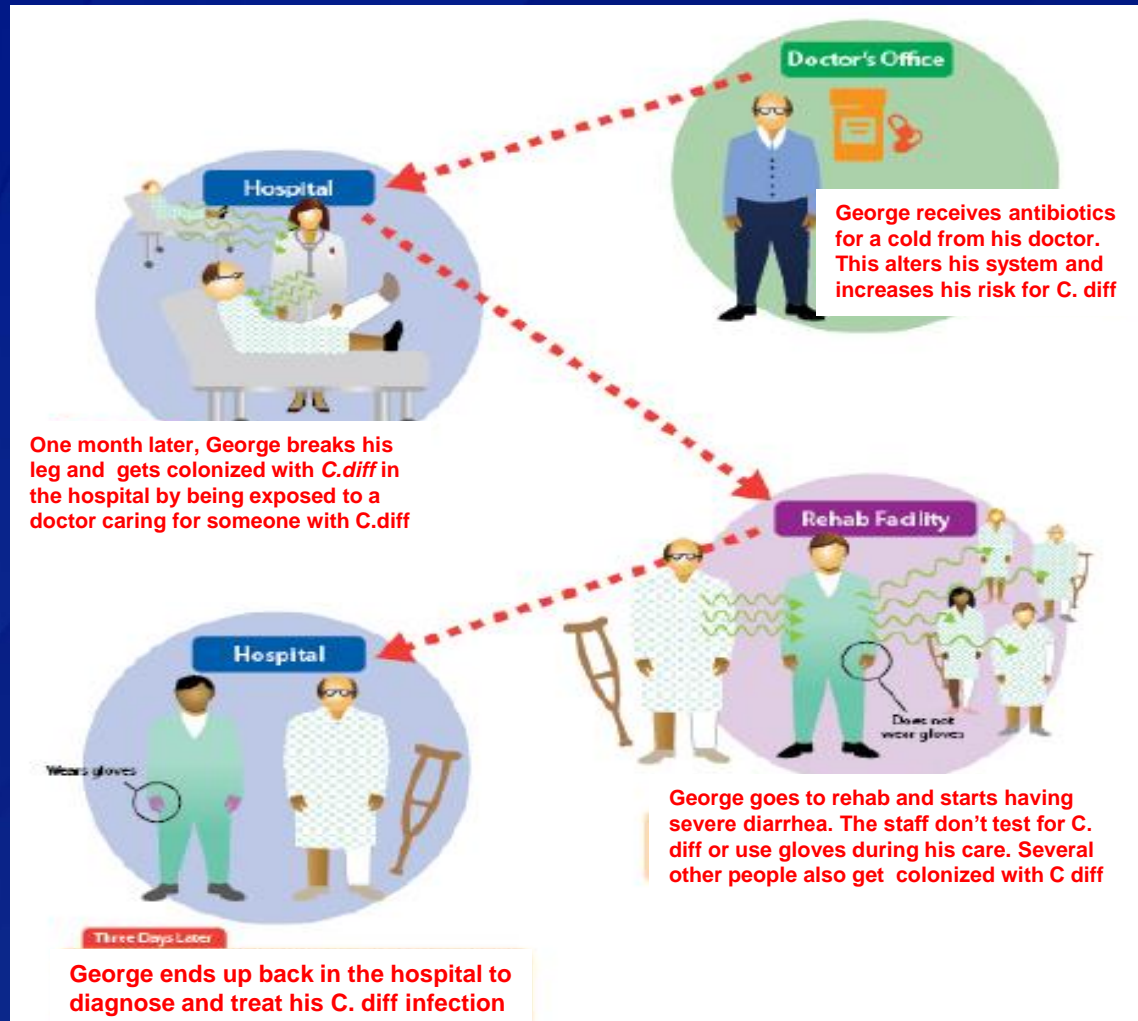
- Outbreaks from *Norovirus*
- Acute diarrhea from *Clostridium difficile* (*C. diff*)

Ways that germs are spread

- ❑ Hands of caregivers
- ❑ Shared equipment
- ❑ Contaminated surfaces in the environment
- ❑ Close contact with others who are carrying the germ



How infections spread in healthcare: *C.difficile* example



Steps to stop the spread of infection

- ❑ Hand hygiene, hand hygiene, hand hygiene
- ❑ Appropriate use of gowns/gloves and other protective equipment
- ❑ Reducing interactions between ill people and healthy people (cohorting/contact precautions)
- ❑ Cleaning and disinfecting equipment and rooms
- ❑ Reducing the risk for antibiotic resistance through improving antibiotic use (also called stewardship)
 - *Also important for preventing C. difficile infection*

Infection prevention challenges

❑ Maintaining a “home-like” environment

- May limit posting of signs and reminders about infection prevention practices;
- May result in fewer hand hygiene/alcohol-based hand rub stations in common areas and hallways;

❑ Impact on resident’s social and emotional health

- Concerns that use of gloves/gowns during intimate will upset residents or create a barrier between caregivers and residents
- Limiting movement within a home (or moving to a private room) while someone is actively ill may disrupt their regular routine

❑ All healthcare settings struggle with:

- Good adherence to hand hygiene and gown/glove use
- Improving antibiotic use
- Consistent, effective cleaning and disinfection

Case #1: Hand hygiene

- ❑ **You are in the dining room at lunch time watching a staff person assist a resident with her meal.**
 - Suddenly, someone else at the table gags and spits up her food.
 - The staff person jumps up to make certain the resident isn't choking, and helps clean up that resident's face, hands, and clothes.
- ❑ **Once that resident is settled back and eating, the staff person returns to the first person to resume helping with their meal.**
- ❑ **The staff person doesn't perform hand hygiene between interactions with the two residents. How might you respond?**

Case #1: Vote for one answer

- ❑ A. Thank the staff person for being so diligent in caring for the residents; hand hygiene isn't necessary when someone may be choking
- ❑ B. Jump across the table and block the staff person from helping the resident until she cleans her hands
- ❑ C. Talk to the staff person after lunch is over and ask why she didn't perform hand hygiene between assisting different residents
- ❑ D. Share the story with the director of nursing and ask to review the facility's hand hygiene policy for the dining room
- ❑ E. I'm not sure, but none of these options seem quite right to me

Understanding hand hygiene (HH)

- ❑ **Step one: Try to understand why it isn't happening**
 - Most caregivers know HH is important and want to do the right thing -- but circumstances make it hard to fit in their work flow
- ❑ **Resident safety is always a priority**
 - In an emergency, there may not be time to perform HH; however, in routine care or after the person is safe, HH is important
- ❑ **Does the nursing home environment make it easy to perform HH?**
 - Are there sinks or alcohol-based hand rub dispensers in the dining room/common areas? If yes, are they close enough for it to be convenient for caregivers to use them without disrupting their work?
 - Was there anyone else available if the staff person had to leave to perform HH?
- ❑ **Could HH stations be more accessible in the home?**

Case #2: Outbreak

- ❑ **You come to the nursing home for a routine visit.**
 - You get to the 3rd floor and see a sign posted on the doors of a unit, stating “Visitors are not allowed to enter – please see a staff member”
- ❑ **A distressed family member is at a nearby nursing station arguing with the unit supervisor.**
 - All the family member knows is that several other residents on that unit have some highly contagious infection (not his dad), so no one except staff is allowed to enter.

How could you help?

Case #2: Vote for one answer

- ❑ A. Open the unit doors and take the family member to see his dad; this is a clear violation of resident rights**
- ❑ B. Escort the family member out of the facility, he will have to wait until the facility allows visitation on the unit**
- ❑ C. Go to the director of nursing to report the unit supervisor**
- ❑ D. Facilitate a conversation between the unit supervisor and the family member to ask for more information about this infection outbreak**
- ❑ E. I like answer D, but I have no idea how to ask about infections and outbreaks**

Communicating during an outbreak

- ❑ **Outbreaks cause a lot of worry and turmoil in healthcare facilities**
 - Many viruses are highly contagious and hard to contain
 - Everyone can be at risk for exposure and infection (staff, residents and visitors)
- ❑ **Sometimes the only way to break the spread of the germs in an outbreak is to limit interactions between infected (or exposed) people and healthy people**
 - If you are exposed to someone with the infection, you may spread it before or even without having symptoms
- ❑ **Guidance for how to manage visitors during an outbreak is limited –**
 - Homes try to balance protecting spread of germs with maintaining the healing care provided by visits

What should I ask about during an outbreak?

- ❑ **In a situation where visits are being restricted, nursing home staff should be able to explain:**
 - What is the infection and how long does it cause illness?
 - What are the signs/symptoms of infection
 - What steps are being taken to prevent spread of infection to unaffected residents?
 - What is the anticipated time these restrictions are going to be in place?
 - Can exceptions be made to the visitor restriction?

Case #3: Antibiotic use

- ❑ A frustrated family member calls your office -- her husband with advanced Alzheimer's disease isn't acting like himself today**
 - In the past, his physician diagnosed and treated him for a urinary tract infection and he always improved.**
- ❑ The nursing staff reports the new medical director has started a new program to improve antibiotic use and doesn't recommend starting treatment**
- ❑ The wife is concerned her husband is going to get sicker and is insisting the doctor start the drug.**

How could you help?

Case #3: Vote for one answer

- ❑ A. I'm sure the physician knows what he's doing, don't worry about it.
- ❑ B. Obviously she knows her husband better than this new doctor, tell her "stand there and make the nurses call him until he starts the medication"
- ❑ C. I'm sorry but I don't have any clinical training, so I'm not in a position to get involved with this situation
- ❑ D. I understand your concern but there must be a good reason why the physician doesn't feel that an antibiotic is needed at this time. Let's try to find out more about this program and how they'll keep your husband safe
- ❑ E. I'm sure it's answer D, but based on what the wife is telling me, I think the husband should be put on the antibiotic

The pros and cons of antibiotics

- ❑ **Antibiotics are important to keep residents safe from bacterial infections. However, there can be serious complications associated with their use**
 - Side effects and adverse reactions, secondary infections like severe diarrhea from C.difficile, and the emergence of antibiotic resistance
- ❑ **Nursing homes are starting to implement programs to improve the diagnosis and management of infections to limit unnecessary antibiotic use in their population**
 - For example, studies show that non-specific signs like changes in behavior or falls which were previously thought to be indicators of urinary tract infections, are not predictive of an infection
- ❑ **It's okay to ask questions if you don't understand why a certain treatment decision is being made**

Explaining antibiotic use

- ❑ **Nursing home staff should be able to explain the following things about antibiotic use:**
 - How are residents assessed to decide if an infection is present or not?
 - How are residents monitored when they are suspect of infection?
 - Are any treatments recommended instead of antibiotics (e.g., fluids or medications to treat symptoms)?
 - Will any diagnostic testing be done? If yes, what? If no, why not and what are the situations when testing would be done?
 - Does the facility have any educational materials for residents/families about safe antibiotic use?
 - Is there an opportunity for the resident/family council to learn more and discuss ways to make antibiotic use safer?

Balancing infection prevention with resident quality of life

- ❑ Not an easy task in the nursing home setting
- ❑ Communication is the key
- ❑ Understanding the questions and challenges for facility staff, residents and families is an important first step to meeting everyone's needs while creating a safe environment

What can I do?

- ❑ **Be a role model for good infection prevention**
- ❑ **Work with the facility to understand their challenges and see if creative solutions could be identified**
- ❑ **Don't be afraid to ask questions for yourself or to facilitate between staff, residents and families**
 - Sometimes your questions can bridge the gaps between these groups
- ❑ **Help homes create messaging and education to residents, families and visitors about their infection prevention policies**
 - Identify resources that can be used to explain the importance of these practices in creating a safer facility

Where can I learn more?

- ❑ CDC website: <http://www.cdc.gov/longtermcare/>
- ❑ Advancing Excellence infections goal: http://www.nhqualitycampaign.org/star_index.aspx?controls=infectionsexploregol
- ❑ Association for Professionals in Infection Control (APIC), website: <http://consumers.site.apic.org/>

Prevent and Manage Infections Safely

**Advancing
Excellence**

in America's Nursing Homes

Making
nursing homes
better places to live, work and visit.



HOME

ABOUT THE CAMPAIGN

RESOURCES

PROGRESS

FOR PARTICIPANTS

Getting Started

Explore Goals

Process Goals:

Consistent Assignment

Hospitalizations

Person Centered Care

Staff Stability

Clinical Outcome Goals:

Infections

Medications

Mobility

Pain

Pressure Ulcers

Infections

Explore Goal

Identify
Baseline

Examine
Process

Improve

Leadership

Monitor &
Sustain

Celebrate

Deciding what you want to change is the first step of the quality improvement cycle. These goal descriptions provide general information about the goal and its benefits to share with your team.

Nursing home residents are at increased risk of infections for many reasons. As more people enter nursing homes following hospital stays, nursing homes are providing more hands-on, complex medical care to residents, such as wound care and maintenance of indwelling devices, which can lead to increased exposure to bacteria and infection. The shared living environment of a nursing home can allow the spread of easily transmissible viral infections which cause respiratory or

**Let the Quality Improvement Cycle
be your Guide...**

Click through the tabs to view resources for each goal. The tabs represent each step of the quality improvement cycle.

Getting Started provides an overview of the complete quality improvement cycle.

Thank you!!

**Email: nstone@cdc.gov with
questions/comments**

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The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

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