Infection Prevention and Control in Nursing Homes: A Qualitative Study of Decision-Making Regarding Isolation-Based Practices

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Background

- Infections are a leading cause of morbidity and mortality in nursing homes (NHs)
- Isolation precautions recommended to prevent pathogen transmission, but are not often practical in NHs
- NH staff use modified isolation-based practices to reduce infections (e.g., cohorting)
- Staff in “30% of NHs use knowledge of the resident to decide if resident should be in a private room
- Not understood how NH staff decide when and how to implement isolation practices of infected residents
- Isolation associated with negative psychosocial effects
- Understanding practice variations is necessary to ensure consistent, high-quality NH care
- The objective of this study was to explore decision-making regarding isolation-based infection prevention and control practices in U.S. NHs

Methods

Data Collection:
- CMS-certified NHs purposefully sampled for diversity in size, location, and ownership, and paired by state
- Recruitment by informational mailings, follow-up emails and phone calls
- In-depth, semi-structured interviews in summer 2013
- Interviews guides regarding general infection control and prevention topics, specific to personnel type

Analysis:
- Verbatim transcripts reviewed in NVivo 10, with keyword search
- Directed content analysis related to isolation-based infection control and prevention practices
- Two authors coded data, conferred for emergent theme consistency and confirmed findings through group discussions

Results

Emergent Themes From Directed Content Analysis

Decision-Making Variation

Perceived Risk of Transmission

- Perceptions of transmission risk, especially about physically containing pathogens, influenced resident isolation practice decisions
- “If the infection was contained, […] you didn’t have to isolate […] a catheter bag is closed… whereas if there is … no catheter, no coverage; then you know they’re at risk.” (Minimum Data Set Coordinator, NH 5)

Conflicts with Quality of Life Goals

- Infection control in general, and isolation practices in particular, were perceived to conflict with quality of life promotion through a “home-like” environment
- “If you have to isolate somebody or you have to put restrictions on them because of an infection […] you have to balance the quality of life aspect.” (Administrator, NH 2)

Resource Availability

- Availability of private rooms, staff time, and communication modes influenced practices and facilitated ideal isolation practices in this setting
- “If it is […] respiratory isolation, we can’t handle that unless we can put them in a private room and usually our private rooms are full.” (Director of Nursing, NH 4)

Lack of Understanding

- Not all statements and practices aligned with current data and may represent infection control misunderstandings
- “We had someone [...] that had just a skin breakout […] the staff were all very scared. They were gowning and gloving and masking to go in the room. But it wasn’t infectious… we had to call another in service and say look, [personal protective equipment] isn’t needed.” (ADON/IP*, NH 7)

Narrative Results

Data Description:
- Data saturation at 73 interviews in 10 NHs
  - Represents 5 states
- 73 interviewees
  - 6-8 interviewees per facility
- Keyword search of transcripts:
  - 1533 references of keywords in 75 passages
- 72/73 transcripts contained information about isolation

Analysis:
- Wide variation in isolation-based infection prevention and control practices in NHs
- Decision-making depended on staff perceptions of transmission risk and quality of life
- NH resources also influenced decision-making (availability of private rooms, extent to which staff can devote time to isolation-based practices and communication tools)
- A lack of understanding of key infection prevention and control concepts also revealed

Conclusion

- Practices in NHs appear to be aligned with clinical guidelines as decisions made on a case-by-case basis
- Training may improve staff understanding of infection prevention and control concepts and definitions
- However, more important to generate new effectiveness data specific to NHs regarding the isolation-based infection prevention and control practices in use
- New transmission risk evidence needed to inform clinicians’ decision-making, especially regarding colonization, cohorting and other organism containment practices

References: