Determining the Psychological Impact of Isolation Precautions on Families of ICU Patients

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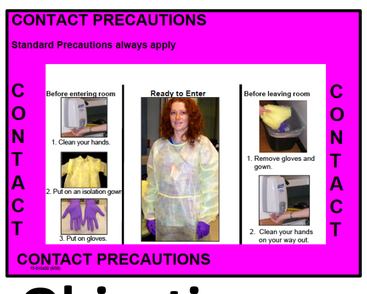
Background

Contact isolation precautions for resistant pathogens such as methicillin-resistant *Staphylococcus aureus* (MRSA) and vancomycin-resistant enterococci (VRE) affect several thousand patients in the Johns Hopkins Hospital's surgical ICUs each year and incidence is growing worldwide (Wassenberg, Severs, & Bonten 2010). Isolation precautions impact patients' mental well-being, increasing anxiety, depression, and anger. Furthermore, healthcare providers are less likely to spend time with isolation patients (Abad, Fearday & Safdar, 2010).

Studies show that isolation protocols can add stress to visiting family members, but their experience is not well understood (Sengupta et al., 2011). In order to improve care delivery, we must understand the needs of families as they relate to infection control measures. This family-centered effort also has implications for improving adherence to safety measures, possibly reducing transmission of life-threatening infections, as well as increasing patient and family satisfaction with care (Ponte et al., 2003, Pronovost, 2010).



Objectives

Determine if family members of isolation patients:

-- understand the reason for isolation

-- experience different attitudes, feelings or interactions with the patient or staff

-- have increased anxiety or depression

Methods

IRB-approved, mixed methods study of family members in 2 surgical ICUs. Subjects were selected from a convenience sample of isolation and non-isolation patients with an ICU length of stay >48 hours.

Qualitative surveys included questions on understanding, thoughts, feelings of isolation precautions and quantitative surveys assessed levels of anxiety, depression and satisfaction with their loved one's care:

- **Critical Care Family Needs Inventory (CCFNI)**
- **Anxiety Survey**
- **Center for Epidemiological Studies Depression Scale (CED-S)**

Results

Data combined with pre-existing interviews for a total of 44 family members interviewed (30 Isolation, 14 Non-Isolation).

Qualitative Results

Major Themes

1. Lack of clarity on indication for isolation precautions and transmission of pathogens

- *"I can only imagine that it's because of some type of infections that she either has or had in the past, and they're worried about that spreading."* (Husband)
- *"I don't know if he has or hasn't [benefitted from precautions] to be honest with you, because he's got so many people coming in…All the germs are going to be in the air anyway so it doesn't really matter then does it if you're going to go out the doorway."* (Wife)

2. Providers are not consistently explaining isolation precautions to families

- *"No, no[one from the hospital explained need for isolation precautions], but I learned from other hospitalizations so I never asked."* (Wife)

3. Isolation precautions are not a barrier for closeness or staff care

- *"I can hold her hand with gloves on, I feel safer than holding her hand without a glove on. This way she's safe and so am I."* (Husband)
- *"I think that they're more precautionary [with gowns and gloves], but honestly I love this hospital, I think that they're trying to provide her with maximum care."* (Daughter)

4. Transitioning settings is an area for teaching

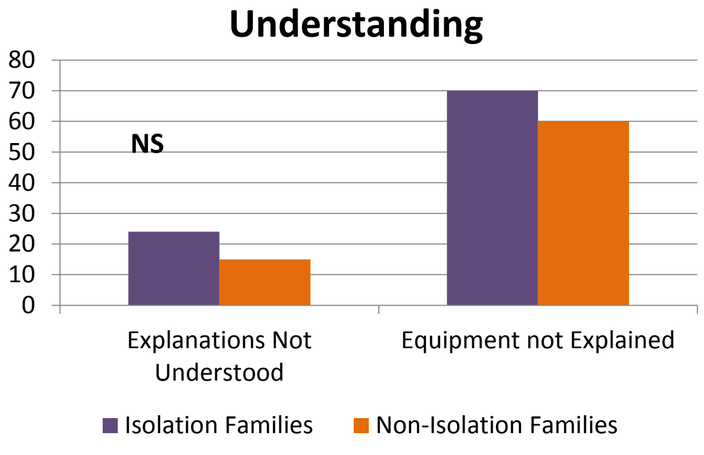
- *"I said, 'when I go home, what you want me to do?' And they told me, 'No problem, only in the hospital…because we got all different kinds of patients and we don't want it to spread.'"* (Mother)

Quantitative Results

Critical Care Family Needs Inventory:

84% of all families satisfied with overall patient care irrespective of isolation status.

Differences in Explanations and Understanding



Anxiety and Depression Scales:

There were no significant differences in depression symptoms or in reported symptoms of anxiety (dizziness, fear, nervous, heart pounding) related to isolation. Family members of isolation patients were less likely to be terrified vs. non-isolation patients (27% vs. 40%, p = 0.05).

Conclusions

- **Indications for isolation precautions and modes of pathogen transmission are not well understood by family members**
- **Isolation is underdiscussed between healthcare providers and families**
- **Providers should deliver information about the benefits and purposes of isolation precautions to family members frequently through structured communication protocols (Dayton & Henriksen, 2007)**

Future Directions

- **Assess family coping at outset. Provide referrals to chaplains, palliative care, and other multidisciplinary resources**
- **Create hospital protocols and update flowsheets regarding family education of isolation precautions and delineating the discipline/care provider responsible**
- **Initiate competency trainings for providers to refresh knowledge on contact precautions**
- **Improve signage on patient room doors**
- **Expand language capacity of survey tools for increasingly diverse patient population**
- **Create isolation family support groups**

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Funding Source:

The Helene Fuld Leadership Program for the Advancement of Patient Care Quality and Safety

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