






## Concise Communication

# Healthcare personnel opinions regarding the feasibility of a risk-tailored approach to contact precautions for methicillin-resistant *Staphylococcus aureus* in the acute care setting

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### Abstract

“All or none” approaches to the use of contact precautions for methicillin-resistant *Staphylococcus aureus* (MRSA) both fail to recognize that transmission risk varies. This qualitative study assessed healthcare personnel perspectives regarding the feasibility of a risk-tailored approach to use contact precautions for MRSA more strategically in the acute care setting.

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### Background

Controversy exists surrounding the use of contact precautions to prevent the transmission of methicillin-resistant *Staphylococcus aureus* (MRSA) in US hospitals.<sup>1–3</sup> Studies suggest that MRSA transmission risk differs by setting, healthcare personnel (HCP) type, and type of activity,<sup>4</sup> and current implementation of contact precautions also varies. Therefore, evidence-informed risk-tailored implementation of contact precautions may offer advantages over current all-or-none approaches. Implementation would be more complex; thus, it is essential to understand potential barriers to and facilitators of policies that allow more strategic use of gloves and gowns. This study assessed HCP perspectives regarding the feasibility of a risk-tailored approach to contact precautions for MRSA in acute care settings.

### Methods

We conducted 3 1–1.5-hour focus groups with HCP at tertiary medical centers in Baltimore, New York, and Pittsburgh in 2022. Two hospitals used contact precautions for MRSA and 1 had discontinued MRSA contact precautions in December 2020. All occupational groups who enter contact precautions rooms were invited to participate. Group discussions focused on contact precautions for MRSA only. Examples of possible risk-tailored policies are shown in Figure 1. We developed a codebook based on a focus group guide and used NVivo 9 for data management and analysis. Two reviewers independently coded the transcripts. Thematic analysis was used to summarize the findings. Emergent

themes and patterns were identified by inductive analysis. Through reviewer consensus, themes were condensed into overarching categories.

### Results

Twenty-four HCP (6 in Maryland, 7 in New York, and 11 in Pittsburgh) participated, including 5 environmental services (EVS) personnel, 4 registered nurses, 3 respiratory therapists (RT), 2 physical therapists (PT), 2 physicians, 2 pharmacists, 2 patient care technicians, 1 nurse practitioner, 1 occupational therapist, 1 registered dietician, and 1 food services employee. Findings by theme are presented below and in Table 1 with illustrative quotations.

#### *Advantages and motivations for contact precaution adherence when caring for patients with MRSA*

Personal protective equipment (PPE) gives HCP a feeling of protection. Most participants said they wear PPE to protect themselves and were motivated to protect other patients and their own families (Table 1).

“It’s protecting us, it’s helping us not catch the germ, hopefully.”

—EVS personnel (Baltimore)

“I think you get a psychological boost out of the fact that you feel like you’re protecting yourself and you’re going to protect the next patient. I think from a mental standpoint you kind of think you’ve done your job to make sure you didn’t spread it so, gives you a feeling that you’re doing the right thing.”

—RT (Pittsburgh)

“It’s helping protect me. Helping protect my future patients, my family, and then it also gives me a peace of mind. Like, I’m protected, I’m going to be clean when I exit the room.”

—PT (Baltimore)

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### Perceived disadvantages of contact precautions when caring for patients with MRSA

Participants mentioned environmental impacts, financial costs, additional time spent donning and doffing, discomfort wearing “hot” plastic gowns, patient stigma, and potential for fewer interactions with patients.

“The environmental impact, costs. I also think . . . the idea that when patients are in isolation it is always a concern that people are less inclined to interact with them. . . . in any infection that it changes how we interact with patients.”

—Physician (New York)

“It’s just the new gowns that we have are plastic, you sweat a lot. It’s just hard to maintain, and each time you put them on, you have to tear it off, change your gloves, sanitize and on to the next and do it all over again. Time consuming.”

—EVS personnel (Pittsburgh)

### Self-reported adherence to contact precaution guidelines when caring for patients with MRSA

Most participants reported that they usually wear PPE when required (Table 1). Some stated that they may not wear required PPE if they are doing something quick or with minimal patient contact.

“I don’t always follow it . . . it depends on what I’m going in to do. If I’m going to just check on my patient, they ring the call bell, just popping my head in, “what do you need?” before I put on the whole gown and gloves, or if I’m just going to silence something. But if I’m not actually touching the patient or giving meds or anything, not usually.”

—Nurse (Maryland)

“I do except under rare exceptions which might be, if I’m really busy, if I just have to drop something off real fast like a paper, just be like, you know you go and then step out, you know? But for the most part, otherwise, yes I do.”

—Food services employee (New York)

### Risk-tailored approach to contact precautions when caring for patients with MRSA

Most participants were open to a tailored approach based on risk, but some felt it may be too complicated or confusing and that it is best to keep things simple (Table 1).

“I think hospital staff would like it [the risk-tailored approach] just because it could save some of the time that it takes to just put on a gown and gloves if we are to just go in there and fix someone’s food tray, compared to going into a room with an emergency.”

—EVS personnel (Pittsburgh)

“If we have to do a flow chart road map to figure out if we have to wear gown and gloves, then that might be a little too much of a headache.”

—Dietician (New York)

### Suggestions for successful implementation

Participants identified targeted education and training on differentiation of risk for both HCP and patients as critical to successful implementation of a more complex, risk-tailored approach.

“It would be helpful for all of us to really understand the risks and it’s probably hard to get the data on exactly what the risks are, but for instance, if we had a better sense of it . . . in order to move that needle to say, Hey, yeah, there is maybe risk, but the risk is so small and we are wasting a

**Table 1.** Summary of most frequently mentioned themes by healthcare personnel related to contact precautions for patients with MRSA

|  | Frequency |
|--|-----------|
| <b>Advantages and motivating factors</b>   |           |
| • Protect yourself   | 13        |
| • Protect patients   | 12        |
| • Peace of mind/feelings of safety   | 8         |
| • Protect your family  | 4         |
| • Staff satisfaction   | 1         |
| <b>Perceived disadvantages</b>   |           |
| • Time donning/doffing   | 12        |
| • Patient stigma   | 10        |
| • Environmental waste  | 7         |
| • Financial costs  | 4         |
| • Discomfort   | 4         |
| • Decreased patient interaction  | 4         |
| <b>Self-reported adherence</b>   |           |
| • Usually when required  | 10        |
| • Always when required   | 3         |
| • Rarely when required   | 0         |
| <b>Reasons for noncompliance</b>   |           |
| • Quick patient encounters   | 4         |
| • Too busy to wear PPE   | 3         |
| • Minimal patient contact  | 3         |
| <b>Risk-tailored approach to PPE</b>   |           |
| • Open to a risk-tailored approach   | 10        |
| • Concern risk-tailored is too complicated/confusing                                     | 8         |
| • Prefer to wear for all encounters  | 5         |
| <b>Suggestions for risk-tailored approach</b>  |           |
| • Targeted education for patients and visitors   | 7         |
| • Targeted education for staff   | 4         |
| • Signage  | 3         |
| <b>Other reflections</b>   |           |
| • COVID has changed how we think about PPE   | 8         |
| • Discordance between perceived personal risk and data, particularly among EVS personnel | 8         |

Note: MRSA, methicillin-resistant *Staphylococcus aureus*; PPE, personal protective equipment; EVS, environmental services.

hundred gowns a minute on just low-risk category, let’s all agree here there is really the low-risk activity.”

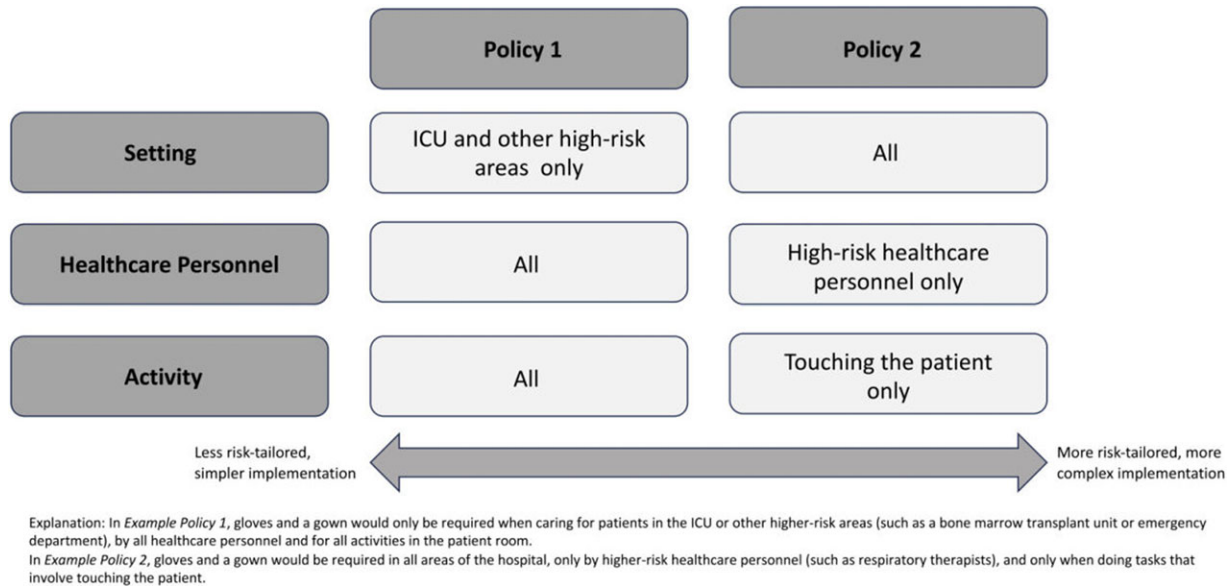
—Physician (New York)

“I think the patient education should be key also there because if you see someone coming through with a gown and then two minutes later someone comes in without a gown, from a patient perspective, you’re going to wonder why . . .”

—Pharmacist (Pittsburgh)

## Discussion

HCP identified advantages and disadvantages to current contact precaution policies. Despite frustrations with the existing



**Figure 1.** Examples of two possible risk-tailored policies for caring with patients colonized or infected with MRSA.

approach, there is a strong sense of motivation to wear PPE to protect themselves, their families, and their patients. Participants appreciated the concept of a risk-tailored approach to MRSA, especially one that is strategic, data-driven, and associated with less glove and gown use. Notably, that sentiment was consistent between sites that used and the site that did not use contact precautions for MRSA. Compared with current all-or-none approaches to contact precautions for patients with MRSA, a risk-tailored approach may conserve transmission prevention advantages while improving HCP satisfaction and reducing waste and inefficiency. Limitations of this study include that HCP's stated opinions may not correspond with behavior change and focus groups did not address the patient perspective. Because this approach would be more complicated to communicate and potentially rely on real-time risk assessment and decision-making by individual HCP, the optimal balance between the precision of transmission risk calculation and the complexity of implementation should be further evaluated.

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