

SHEA offers cautious guidance on easing contact precautions for drug-resistant infections

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Chris Dall | News Reporter | CIDRAP News | Jan 12, 2018



A panel of experts in infection prevention and control has released new expert guidance for acute care hospitals to help them determine when it's safe to discontinue contact precautions for patients with antibiotic-resistant infections.

The recommendations from members of the Society for Healthcare Epidemiology of America (SHEA) Guidelines Committee, published yesterday in *Infection Control and Hospital Epidemiology*, address discontinuation of contact precautions for patients with one of the following organisms: methicillin-resistant *Staphylococcus aureus* (MRSA), vancomycin-resistant *enterococci* (VRE), *Clostridium difficile*, and multidrug-resistant Enterobacteriaceae (MDR-E), including carbapenem-resistant Enterobacteriaceae (CRE) and extended-spectrum beta-lactamase producing Enterobacteriaceae (ESBL-E).

The SHEA Guidelines Committee developed the guidance based on available literature, a survey of institutions within the SHEA Research Network, author opinion, practical considerations, and consideration of potential harm. The authors note that the guidance lacks the quality of evidence needed for formal guidelines, and is not meant to be a substitute for professional judgment.

Questions about duration

Contact precautions are used by hospitals to prevent these easily transmitted pathogens from spreading from patient to patient. They generally call for putting patients with a known or suspected infection in a single occupancy room and having healthcare workers don gloves and gowns when coming into contact with the patient or the patient's immediate environment.

While guidelines exist for when contact precautions should be initiated by hospitals, however, few publications address when, and under what circumstances, these safety measures should be discontinued. As a result, there's a wide variation in how hospitals handle discontinuation of contact precautions for different organisms.

"There's a lot of uncertainty and confusion as to when it's safe to consider removing contact precautions on select patients for select organisms," Gonzalo Bearman, MD, MPH, an author of the study and chair of the division of infectious diseases at Virginia Commonwealth University, said in an interview. Although keeping patients under contact precautions for long periods will prevent the spread of pathogens, Bearman said keeping patients isolated unnecessarily may have a negative impact on care by reducing patient interaction with providers.

"There have been some reports of patients complaining of decreased satisfaction with care, and maybe some increased feelings of isolation and depression," he said.

One of the reasons that the optimal duration of contact precautions is unknown is because it remains unclear how long patients colonized with these organisms remain colonized. As a result, Bearman explained, it's challenging to provide definitive answers as to when it's safe to end contact precautions.

For example, while evidence indicates that most patients will remain negative for MRSA colonization if they have three negative weekly surveillance cultures, some patients colonized with MRSA, including those with chronic wounds and those who've been transferred from long-term care facilities, are persistent, long-term carriers.

C difficile is an organism that can hang around in the hospital environment well after an infection has cleared, and has proven difficult for hospitals to control even when they are following appropriate infection prevention and control measures. The guidance notes that while the CDC currently recommends discontinuing contact precautions 48 hours after the resolution of diarrhea, some *C difficile* carriers continue to shed spores in their stool for weeks. And recent data, the authors add, suggest that isolating asymptomatic *C difficile* carriers has reduced incidence in some hospitals.

Then there are multidrug-resistant pathogens like CRE, which have limited treatment options and could have a devastating impact in a hospital if they spread among patients and caused infections. Hospitals are more likely to maintain contact precautions indefinitely for patients with a history of carrying these organisms.

"For an endemic organism such as MRSA or VRE, we generally tend to be more liberal about discontinuing contact precautions," Bearman said. "But for things that are multidrug-resistant that can lead to outbreaks and have devastating consequences, we certainly want to be more cautious."

A cautious approach

Based on these factors, the SHEA Guidelines Committee came up with recommendations that acknowledge this uncertainty. The guidance includes the following recommendations:

- For patients who've been previously colonized or infected with MRSA, they recommend a discontinuation policy based on 1 to 3 negative screening cultures for those patients not on antibiotics with activity against MRSA. For high-risk patients, hospitals should consider extending contact precautions.
- For patients infected or colonized with VRE, the guidance recommends that decisions on discontinuation should be guided by 1 to 3 negative stool or rectal swab cultures. For those patients who are highly immunosuppressed, being treated with broad antibiotic therapy without VRE activity, and receiving care in protected environments (i.e. burn units) or institutions with high VRE rates, hospitals should consider extending contact precautions prior to assessing for discontinuation.
- For patients infected or colonized with CRE or ESBL-E, the guidance recommends continuing contact precautions for the duration of the patient's index hospital stay. Hospitals should consider discontinuation on a case-by-case basis, and only when at least 6 months have elapsed since the last positive culture and at least 2 consecutive negative rectal swab samples have been obtained. For extensively drug-resistant Enterobacteriaceae, hospitals should continue contact precautions indefinitely.
- For patients with *C difficile*, the guidance recommends maintaining contact precautions for at least 48 hours after resolution of diarrhea, but suggests hospitals with elevated rates of incidence should consider extending them for the duration of hospitalization. The guidance makes no recommendation on whether patients with *C difficile* should be placed on contact precautions if they are readmitted to the hospital.

"The common thread is that we're trying to be cautious in how we approach the removal of contact precautions, and we're trying to use as much background knowledge or data that we have to make a reasonable suggestion," Bearman said.

Bearman and his coauthors also say that insufficient evidence exists to make a formal recommendation supporting the use of molecular testing, such as polymerase chain reaction (PCR) testing, to determine duration of contact precautions.

The authors conclude that further studies in "real-world" settings are needed to determine the optimal use and duration of contact precautions. Until then, they add, hospitals considering adopting policies for discontinuation of contact precautions should carefully assess their institutional risks, priorities, and resources, and revisit those policies in outbreak situations.

The guidance is endorsed by the Association for Professionals in Infection Control and Epidemiology, the Society of Hospital Medicine, and the Association of Medical Microbiology and Infectious Disease Canada.

See also:

Jan 11 *Infect Control Hosp Epidemiol* [SHEA Expert Guidance](#)

Jan 11 SHEA [press release](#)