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## Reply to Burden et al

*To the Editor*—The letter by Burden et al<sup>1</sup> in response to the Society for Healthcare Epidemiology of America (SHEA) expert guidance article on healthcare personnel (HCP) attire in non-operating-room settings<sup>2</sup> raises an important question: should SHEA provide guidance in areas where available data are insufficient for evidence-based guidelines?

A core mission of SHEA is to advance the science of infection prevention, to help fill in evidence gaps in order to drive practice change and reduce infections. However, there are still far too many areas of uncertainty, and too little funding to address all of them quickly. In addition, given the multifactorial nature of healthcare-associated infection (HAI) risk, it is often very difficult to tease out the incremental risk associated with a single variable (eg, HCP attire). So the question arises, what should we do while awaiting better evidence?

I believe that the expertise of SHEA members is critical in helping to answer that question. A complete literature review and expert guidance (not guidelines) can assist infection prevention programs as they choose among options available to them (but without mandating approaches in the absence of sufficient evidence). The guidance on HCP attire does just that. The recommendations first reinforce the need for appropriately designed studies and emphasize the importance

of making evidence-based HAI prevention measures the priority. Regarding specific attire practices, the guidance clearly states that the various approaches are optional and “should be voluntary” if institutions wish to pursue them.

Thus, rather than equating this guidance with the “bare below the elbows” policy adopted in the United Kingdom, Burden and colleagues should consider that the guidance provides hospitals the freedom to shape attire policies in a way that is consistent with their own priorities and based on their own weighing of the limited available evidence.

Providing guidance in the face of limited evidence is bound to generate debate, which is welcome and can help stimulate further research to clarify these areas of uncertainty.

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2. Bearman G, Bryant K, Leekha S, et al. Healthcare personnel attire in non-operating-room settings. *Infect Control Hosp Epidemiol* 2014;35:107–121.

## Reply to Burden et al

*To the Editor*—We read with interest the letter to the editor by Burden et al<sup>1</sup> regarding the Society for Healthcare Epidemiology of America (SHEA) expert guidance article titled “Healthcare Personnel Attire in Non-Operating-Room Settings.”<sup>2</sup> Burden and colleagues take issue with the expert guidance statement with regard to 3 items. First, they object to a “bare below the elbows” (BBE) policy; second, they reject any recommendation regarding the frequency of laundering

of healthcare personnel (HCP) white coats or uniforms; and third, they point out that their study was not cited in the section on antimicrobial scrubs. In considering these points further, we feel that Burden and colleagues have largely misconstrued the purpose of the guidance statement and the specific recommendations.

The project's goal was to thoroughly review the literature on HCP apparel, both from the aspect of infection prevention and from the patient and HCP perspective of professionalism. As stated in the article, the level of evidence was not sufficient for a formal guideline recommendation; rather, our aim was to provide expert *guidance* on voluntary strategies for HCP attire in non-operating-room settings.

With respect to antimicrobial scrubs, we agree with Burden and colleagues that the current level of evidence does not support universal implementation of these technologies and that additional studies are needed to define the best strategy for use of antimicrobial scrubs in the healthcare setting. At the time of our literature review, we were careful to read all of the literature in print in the English language. The randomized controlled trial of antimicrobial scrubs by Burden et al<sup>3</sup> was not yet in print at the time of our literature review. In their study, Burden and colleagues found no evidence that the antimicrobial scrub products tested decreased bacterial contamination of HCP uniforms or wrists after an 8-hour workday. Hand hygiene of study participants was not observed and may have impacted microbial contamination at the wrist.

As we clearly stated in the SHEA expert guidance article, "the role of attire in cross-transmission remains poorly established, and until more definitive information exists priority should be placed on evidence-based measures to prevent healthcare-associated infections (HAIs)" (p. 107). Such an approach would be consistent with a horizontal infection prevention strategy.<sup>4</sup> As opposed to the mandated BBE approach used in the United Kingdom and Scotland, which Burden decries, we relate that this strategy should be used only to supplement standard infection prevention measures and then only on a voluntary basis and accompanied by education of HCPs and patients. As we note in the expert guidance article, the impact of a BBE approach is unknown. However, a BBE policy is supported by biologic plausibility, laboratory data, and some clinical studies and is unlikely to cause harm. As acknowledged by Burden and colleagues in their letter, we clearly cite studies that disagree with the BBE approach, yet they accuse us of "ignoring data that go counter to their preconceptions."

In our recommendations regarding laundering, we tried to strike a common-sense balance between microbial burden of apparel, visible cleanliness, professional appearance, and resource utilization. Again, Burden and colleagues have missed the point. The guidance statement is meant to offer a reasonable approach in the absence of definitive data. Just because there is insufficient data to promulgate an authoritative

guideline does not mean that nothing should be done. Infection prevention personnel grapple with these issues daily, and our guidance statement was meant to consolidate the available data and offer helpful advice—not ironclad requirements.

Thus, in conclusion, as opposed to their overly harsh assessment that "there are no data supporting the recommendations made by Bearman and colleagues," we feel we have performed a service to the field by thoroughly summarizing the literature on the topic, pointing out the gaps in our understanding, emphasizing the importance of adherence to evidence-based practice, and offering reasonable approaches to these frequently asked questions based on available data and expert opinion until more definitive studies are performed. We are confident that most persons who read the guidance statement will agree.

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