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Ruth M Carrico, PhD, DNP, APRN, FSHEA, CIC*
 Division of Infectious Diseases, University of Louisville Global Health Program, University of Louisville School of Medicine, Louisville, KY

*Address correspondence to Ruth M Carrico, PhD, DNP, APRN, FSHEA, CIC, 501 E Broadway, Ste 140C, Louisville, KY 40202.
 E-mail address: ruth.carrico@louisville.edu (R.M. Carrico).

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Survey responses to policy changes—Overextended consequences



To the Editor:

Carrico et al¹ set out to “define the current state of ultrasound use in United States (US) health care facilities” and to “identify existing practices regarding decontamination and disinfection of the ultrasound probes.” However, instead of epidemiologically assessing the current state, the authors essentially measured the knowledge of the participating infection preventionists and their awareness of cleaning, disinfection, and sterilization practices at their individual organization. Although this is

valuable information and highlights the need for increased collaboration and education, we are concerned with the assumptions this work is based on and the resulting conclusions and recommendations.

The authors highlight deficiencies in properly adhering to established guidelines and protocols for nondedicated patient care equipment. The flow diagram in Figure 2A indicates the need for high-level disinfection or sterilization for an array of ultrasound probes, including those used for minimal skin punctures (eg, central line insertion or needle biopsies). The figure cites Centers for Disease Control and Prevention (CDC),² American Institute of Ultrasound in Medicine,³ and Association for the Advancement of Medical Instrumentation⁴ recommendations as the source. However, it is not clear that those 3 organizations intended to support this level of processing for these low-risk uses of ultrasound probes.

When describing the Spaulding criteria for semicritical items, the CDC Guideline for Disinfection and Sterilization in Healthcare Facilities focuses primarily on endocavitary instruments that contact a mucous membrane. This includes respiratory therapy and anesthesia equipment, some “endoscopes, laryngoscope blades, esophageal manometry probes, cystoscopes, anorectal manometry catheters, and diaphragm fitting rings.” The CDC guideline does not list venous or arterial catheter placement procedures, or needle biopsies, as examples for semicritical or critical items.²

Further, the American Institute of Ultrasound in Medicine recommendations cited by the authors states specifically that “Interventional percutaneous procedure probes that are used for percutaneous needle or catheter placement, such as vascular access, thoracentesis, paracentesis, arthrocentesis, and pericardiocentesis, lumbar puncture, US [ultrasound]-guided regional/local anesthesia, and other percutaneous procedures should be cleaned using low-level disinfectants and be used in conjunction with a single-use sterile probe cover.”³

The Association for the Advancement of Medical Instrumentation ST58 does not provide a specific recommendation regarding how to classify ultrasound probes. Rather, it details the safe and effective use of chemical sterilants and high-level disinfectants in health care facilities.⁴

We are concerned at the immense practice change implications that high-level disinfection/sterilization for low-risk probes would require. To our knowledge, there are no examples in the literature implicating external probes (as used with central venous catheter insertion) in outbreaks or transmission of disease when equipment was sheathed with a sterile cover and sterile ultrasound gel utilized. Considering that central line–associated bloodstream infection surveillance is 1 of the highest priorities for most infection prevention departments, we believe that if such outbreaks were happening, it would have been noted by our professional or regulatory/governmental agencies to which the primary outcome (central line–associated bloodstream infections) are routinely reported.

Finally, we would like to call attention to the fact the funding support for the completion of this survey and manuscript preparation was provided by a company actively working to set “the new standard of care globally for ultrasound probe reprocessing.”⁵ Although this does not discount the work completed by this group, it is another point of caution to ensure that this survey does not become evidence

cited to enforce a regulation for a level of reprocessing that seems to be unneeded.

Conflicts of interest: None to report.

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Kathleen A. Gase, MBA, MPH, CIC, FAPIC*
Barnes-Jewish St. Peters Hospital, St. Peters, MO

Kathleen M. McMullen, MPH, CIC, FAPIC
Christian Hospital, St. Louis, MO

Marc-Oliver Wright, MT(ASCP), MS, CIC, FAPIC
*University of Wisconsin Hospital and Clinics,
Madison, WI*

*Address correspondence to Kathleen A. Gase, MBA, MPH, CIC,
FAPIC, Barnes Jewish St Peters Hospital, 10 Hospital Drive, St. Peters,
MO 63376.

E-mail address: kag9373@bjc.org (K.A. Gase).

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