For: *Infection Control, Operating Room, Endoscopy, Instrument Reprocessing, Risk Managers, et al.*

The Q-Net™ Monthly

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What's News

This issue focuses on infection control in ambulatory surgical centers. Future issues of this newsletter will provide Q-Net's annual quiz and specific recommendations to prevent the types of infection-control breaches recently identified within the VA Caribbean Healthcare System and discussed in this newsletter's *April-May-June* (2010) issue.

Editor-in-Chief

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What is 'Q-Net'?

Q-Net is a technology assessment, infection control-based **net**work of **q**uestions, answers, and perspectives. Its newsletter is *The* **Q-Net™** *Monthly*.

The main goal of **Q-Net** is to encourage the infection control, endoscopy, and operating room communities to improve patient care by not only asking good questions but also by demanding well referenced, evidence-based answers.

Q-Net addresses the needs of both the healthcare provider, whose goal is to provide the best care possible, and the patient, who deserves affordable quality health care.

Infection-Control Lapses in Ambulatory Surgical Centers

This article discusses a study, recently published in the Journal of the American Medical Association, that found infection control in ambulatory surgical centers (ASCs) to be lacking.

INTRODUCTION: A study published in the June 9th issue of the *Journal of the American Medical Association* (JAMA) discusses infection control in ambulatory surgical centers (ASCs).[1] Authored by Schaefer et al. of the *Centers for Disease Control and Prevention* and of the *Centers for Medicare and Medicaid Services*, this study found infection-control lapses to be "common" among sixty-eight inspected ASCs.[1] No doubt, such lapses in infection control pose an increased risk of healthcare-acquired infections (HAIs).[1,2]

An editorial published in this same issue of *JAMA* provides insights into Schaefer et al.'s findings.[2] Written by Barie, this editorial notes that, while "relatively little is known about the quality of care" in ASCs, "outpatient procedures now represent more than three-quarters of all operations performed."[2]

A DIRECTIVE: Barie asserts in his editorial that the risk of HAIs associated with the types of lapses Schaefer et al. identified in ASCs is "not acceptable and must be corrected immediately and definitively."[1,2] This directive—and Barie's statement that "standards for sterilization … must be adhered to with rigor"[2]—are most appropriate and germane, but complying with their instructions is challenging, if for no other reason than limited guidance and advice. To be sure, reports like Schaefer et al.'s that discuss encountered infection-control lapses often do not clarify the root causes of these lapses.

And without such reports having identified the root causes of the encountered lapses, not only would these reports be arguably incomplete, but the actions necessary to correct each root cause and comply with Barie's directive to reduce the risk of HAIs cannot be effected.

Which is to ask Schaefer et al: *What are some of the root causes (clinical, economic, or otherwise) of the many infection-control lapses that these authors discuss in their important study?*

ROOT CAUSE: In hazard analysis a *root cause* is a factor that contributed to a lapse, failure, or error. The prevention of such an error (or at least the mitigation of its associated risks) requires that every one of the error's possible root causes be identified and, through the employment of corresponding interventions, eliminated or corrected. The improper reuse of single-dose medicine vials on multiple patients, for example, is not likely to be prevented until each of this breach's root causes is identified and corrected.

DISCUSSION: Table 1 lists four factors

Table 1. *Factors that might rouse confusion and send "mixed signals" about the importance of infection control and sterile technique to the prevention of HAIs.*

1. **Inconsistent infection-control guidelines:**
   - › Some recommend drying flexible endoscopes only before their storage, while others underscore the importance of drying between-patient-procedures.[13]
   - – Some classify laryngoscope handles as *non-critical*, while others classify them as *semi-critical*.[14]
2. **"Double standards" in infection control:**
   - › Some guidelines endorse the clinical use of wet instruments—a dubious practice associated with HAIs,—whereas other guidelines contraindicate the clinical use of wet, wrapped instrument sets (because of the potential for contamination).[3,15,16]
   - – Though infection-control guidelines recommend monitoring sterilizers using biological indicators, most do not recommend microbiologically monitoring filtered rinse water to verify its "sterility."[15]
3. **A condoned breach of sterile technique:**
   - › The continued use of an adulterated and misbranded device used to "sterilize" surgical instruments in medical facilities remains sanctioned.[3-10]
4. **Questionable assessments of the risk of HAIs:**
   - › Some risk assessments confusingly conclude that infection-control lapses previously linked to an increased risk of HAIs pose no risk of infection.[11,12]

that send "mixed signals" about the importance of both infection control and sterile technique to the prevention of HAIs.[3] Because such factors manifestly cause confusion, their remediation (or elimination) is recommended.

Which introduces the "Butterfly effect" and consideration of whether these factors listed in Table 1, among others, might be root causes of some of the specific lapses that Schaefer et al. identified—including the failure by a significant number of surveyed ASCs to adhere to such basic infection-control practices as, for example, proper hand hygiene; safe injection practices (e.g., not reusing single-dose medicine vials); and the cleaning of reusable items prior to their disinfection or sterilization.[1]

Arguably few factors would abet more confusion, or more effectively send "mixed signals" about infection control's contribution, than the approbation (approval) of, and resignation to, a most potentially significant breach of sterile technique—namely, today's condoned use in medical facilities *and* ASCs (without the patient's knowledge) of a device for "sterilizing" surgical instruments that, although commonly used,[†] the Food and Drug Administration asserts has been adulterated and misbranded for more than two decades.[3-10]

That this long-standing lapse and the self-evident implications of its sanctioned practice might have set into motion a series of misunderstandings and missteps that have compromised (and tarnished) sterile technique, causing such salient infection-control lapses as those reported by Schaefer et al. to have become common (if tolerated) warrants discussion.[1,2]

Another example of infection control's "mixed signals" is the published conclusion that the ineffective reprocessing of transvaginal ultrasound probes, endoscopes, and other reusable instruments posed a "negligible" risk of HAIs.[11,12] Such an assessment is many things—including a double-edged sword, for while it might seek to mollify the public's fears about HAIs, it also conveys a flawed conclusion: that infection control and instrument reprocessing are superfluous.[12]

Indeed, while the true impact of this flawed conclusion is, of course, unclear, to argue that it, along with Table 1's other factors, are not potential root caused of, and have not to any extent contributed to, or fostered, any of the types of lapses that Schaefer et al. reported would seem unreasonable. Which suggests that unless these factors (among others) are corrected, significant infection-control lapses in surveyed ASCs are likely to remain common.[1] **LFM** ●

The REFERENCES to this article are available *on-line* at:
www.myendosite.com/htmlsite/2010/refs0710.pdf

Thank you for your interest in this newsletter. *I have addressed each issue and topic to the best of my ability. Respectfully, Lawrence F. Muscarella, Ph.D.*
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[†] Use of the STERIS System 1 would appear to be a potentially significant lapse in infection control, and one, too, that Schaefer et al. most likely encountered at times during their inspections, but for unclear reasons did not list or discuss in their study.

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