



How Clean is Your Keyboard?



The persistence of multidrug-resistant organisms (MDROs) within intensive care units (ICUs) poses a significant risk to patient safety. Now new research indicates that MDROs may be hiding within clinical staff work areas and away from immediate patient zones. The finding is reported in the *American Journal of Infection Control*, the official publication of the Association for Professionals in Infection Control and Epidemiology (APIC).

Greg S. Whiteley, PhD, School of Science and Health, Western Sydney University in Australia, and colleagues conducted a pilot study using three different sampling methods in a busy ICU to determine if and where MDROs might still be lurking in spite of routine environmental cleaning. The researchers traced the steps of healthcare workers (HCWs) in between their workstations and patient bedsides and sampled commonly touched objects along the way for MDROs.

The results show that 9 of 13 confirmed MDROs from any area came from clinical workstations — on chairs, clipboards, keyboards, telephones, and a computer mouse.

See Also: [Automated Hand Hygiene Monitoring](#)

As a secondary finding of the study, combined ATP testing on environmental surfaces was more than seven times as likely to positively identify MDROs as microbial swabbing (33.3 percent vs. 4.3 percent.). ATP testing is a process of rapidly measuring actively growing microorganisms through detection of adenosine triphosphate (ATP) — a marker of bio-contamination.

"In this pilot study, we found that many of the high touch objects from which MDROs were recovered were not items included in cleaning protocols," write Dr. Whiteley and co-authors. "The findings of this study suggest the need to review the hygiene standards adopted in the clinical workspace, away from the immediate patient zones in busy ICUs."

See Also: [Clothing in NICU May Spread Respiratory Infections](#)

The results also show that the use of rapid ATP testing in assessing cleanliness of high-touch objects in the ICU can improve the discovery rate for MDRO locations, the authors note.

While hand hygiene compliance by HCWs was not audited during the pilot study, the level of compliance is typically reported as adequate. This pilot study was part of a wider project, and other studies of the various components required for hygiene improvement within healthcare settings are currently under way.

Source: [Elsevier Health Sciences](#)
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