

Acinetobacter baumannii found growing in nearly half of infected patient rooms

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Multidrug-resistant *Acinetobacter baumannii* (MDR-AB) was found in the environment of 48 percent of the rooms of patients colonized or infected with the pathogen, according to a new study published in the November issue of the *American Journal of Infection Control*, the official publication of APIC - the Association for Professionals in Infection Control and Epidemiology.

The study examined how frequently the environment surrounding the patient becomes contaminated and which environmental surfaces are most commonly contaminated.

A team of researchers from the University of Maryland School of Medicine took samples from ten surfaces in each of 50 rooms inhabited by [patients](#) with a recent (less than two months prior to environmental sampling) or remote (more than two months) history of MDR-AB. Surfaces sampled included the door knob, bedrails, bedside table, vital sign monitor touchpad, nurse call button, sink, supply cart drawer handles, infusion pump, ventilator surface touch pad, as well as the floor on both sides of the patient's bed. Of these, 9.8 percent of surface samples representing 48 percent of the tested rooms showed environmental growth of *A. baumannii*.

Further, the study found that patients with a recent history of MDR-AB colonization or infection were not significantly more likely than those with a remote history of MDR-AB to contaminate their environment.

The authors note several potential limitations including small sample size, lack of a comparison group, and the inability to determine which came first: environmental contamination or patient colonization/infection. In addition, the study did not evaluate [healthcare worker](#) or patient movement and therefore cannot demonstrate transmission of *Acinetobacter baumannii* to patients as a result of environmental contamination.

Since the study was conducted, new strategies to reduce transmission of the pathogen have resulted in a significant decrease in infections and acquisition.

The research found that supply cart drawer handles (20 percent), floors (16 percent), infusion pumps (14 percent), ventilator touchpads (11.4 percent) and bedrails (10.2 percent) were most commonly contaminated, and 85 percent of environmental cultures matched the strain of the infected patient in that room. These results are of particular concern due to the frequency with which healthcare workers may touch infected surfaces during patient care.

"For patients with MDR-AB, the surrounding environment is frequently contaminated, even among patients with a remote history of MDR-AB," conclude the authors. "In addition, surfaces often touched by healthcare workers during routine patient care are commonly contaminated and may be a source of nosocomial transmission. The results of this study are consistent with studies of other important hospital [pathogens](#) such as methicillin-resistant *Staphylococcus aureus*, vancomycin-resistant *Enterococcus* and *Clostridium difficile*."

[Acinetobacter baumannii](#) is a species of gram-negative, multidrug resistant bacteria that has caused outbreaks of infection in healthcare facilities over the last decade and considerable concern in the medical community. Infections from this pathogen primarily occur in very ill,

wounded or immunocompromised patients. The germ is capable of surviving on surfaces for prolonged periods of time, making it harder to eradicate.

Provided by Elsevier

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