Antibiotic Usage

Overall, 55 of the 56 patients had received antibiotics prior to the isolation of *A baumannii* from a clinical specimen; 54 had received a β-lactam antibiotic and 18 had received an aminoglycoside. The 1 patient who had not received antibiotic therapy grew a multiresistant *A baumannii* isolate from urine.

Nine patients who never received imipenem, amikacin, or tobramycin during their hospital stay contributed 18 initial and subsequent clinical isolates. Nine of the 18 isolates were resistant to imipenem, and nine were resistant to both aminoglycosides. In contrast, overall resistance rates for clinical isolates from the 56 patients were 35% for imipenem and 28% for aminoglycoside.

No isolate became more susceptible to antibiotics with time. Of the 34 subsequent clinical isolates from 29 patients, 10 displayed greater resistance than the initial isolates, and 6 of these had become panresistant.

DISCUSSION

The ability of *A baumannii* to acquire antimicrobial resistance and its propensity for nosocomial colonization of the gastrointestinal tract have been well described.[8] In this study, one half of the patients were colonized in either the gastrointestinal tract or on the skin. Colonization developed rapidly, most often in the first week after *A baumannii* was isolated from a clinical site, and was persistent in 58% of patients. Susceptibility patterns of the colonizer and clinical isolates differed for 29% of patients. Four patients, despite having susceptible clinical isolates, harbored a multiresistant or panresistant isolate, either on the skin or in the gastrointestinal tract, that would have been undetected without surveillance. Both clinical and colonizer isolates had varying susceptibility patterns during this study period. The discordance and heterogeneity of isolates make the efforts of infection control more complex, as isolates may differ from site to site, as well as through time. Prior antibiotic exposure did not predict resistance patterns.

These data suggest that, in patients with a clinical isolate of *A baumannii,* gastrointestinal and skin colonization should be ascertained and then monitored for changing susceptibility patterns. Transmission-based infection control methods, such as contact isolation and isolation of infected or colonized patients, may be the most effective strategy.

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Satellite Broadcast: Biological Warfare

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Knowledge about the extensive biological weapons programs in other countries and numerous recent bioterrorism threats have increased concern regarding the medical management of biological agent casualties. Military and civilian medical and public health professionals must become proficient in recognizing that a biological attack has occurred, activating the appropriate agencies and personnel to investigate the event, treating the casualties, and preventing the spread of the agent. A live, interactive 3-day satellite broadcast will educate health professionals about the proper medical response in the event of an intentional biological agent release. Experts from the US Army Medical Research Institute of Infectious Disease (USAMRIID), the CDC, and other organizations will present this program at no charge. The program will be broadcast live on September 21, 22, and 23, from 12:30 PM to 4:40 PM EST, with a taped rebroadcast on October 2 and 3 from 11:30 AM to 5:30 PM. More information about this program and registration is available at www.biomedtraining.org, or call Mr. Darren Gerlach at (301) 619-7515.