

Pathogen Information

Acinetobacter is a gram-negative bacterium commonly found in soil and water. While there are many species of Acinetobacter that can cause human disease, *Acinetobacter baumannii* (*A. baumannii*) accounts for about 80% of reported infections.

Reservoir

A. baumannii live and multiply in soil and water, and on the skin of healthy people, especially in health care settings. Acinetobacter can live for long periods of time in the environment, on both wet and dry surfaces. Acinetobacter may also colonize or live in a patient without causing infection or symptoms, especially in tracheostomy sites or open wounds.

Source

MDRAb infections occur most often in health care settings, especially in intensive care settings.

Transmission

MDRAb is transmitted person-to-person by contaminated hands, or from touching contaminated surfaces, fluids, or equipment. Acinetobacter can enter through open wounds, catheters, and endotracheal tubes.

Case definition

MDRAb is *A. baumannii* that is resistant to three or more of the following five antibiotic classes: aminoglycosides, ampicillin/sulbactam, antipseudomonal carbapenems, antipseudomonal cephalosporins, fluoroquinolones. Acinetobacter appears to be particularly effective at acquiring genetic material from other organisms and thus rapidly developing drug resistance.

Risk Factors

- Immunocompromised
- Chronic lung disease
- Diabetes
- Open wounds
- Prolonged hospital stay or long-term care setting
- Invasive medical devices such as urinary catheters, central intravenous catheters, ventilators
- Prolonged antibiotic use

Clinical Signs and Symptoms

Symptoms are based on the body site involved; possible infections include bacteremia, pneumonia, ventilator-associated pneumonia (VAP), meningitis, urinary tract infection (UTI), catheter-associated urinary tract infections (CAUTI), central line-associated bloodstream infection (CLABSI), and wound infection. Acinetobacter can cause or contribute to death in seriously ill patients.

Diagnosis

Culture and sensitivity is required for definitive diagnosis. Patients are considered colonized if they have a positive culture for MDRAb but do not have any signs or symptoms of infection. Patients are considered infected if they have signs or symptoms of infection. Both patients with MDRAb colonization or MDRAb infection can serve as a source of transmission to other patients in healthcare facilities.

Division of Infectious Disease Epidemiology (DIDE)

350 Capitol Street, Room 125, Charleston, WV 25301-3715
Phone: 304.558.5358 Fax: 304.558.6335 www.dide.wv.gov

October 2012

Healthcare Provider Information Sheet for Multidrug-resistant *Acinetobacter baumannii* (MDRAB)



Treatment

Treatment decisions should be made on a case-by-case basis and guided by in vitro antimicrobial susceptibility assays. Optimal treatment for MDRAB has not been established; combination therapy has been used. Clinicians should take into account the susceptibility patterns of MDRO strains present in their geographic area. Prevention is the best option!

Prevention

Responsibilities of staff

- Practice hand hygiene – before and after patient contact, and before and after patient-environment contact. Hand hygiene should always be performed after glove removal.
- Communicate the patient's MDRAB status within the facility and at the time of transfer.
- Clean high touch surfaces (door handles, bedside tables, etc.) according to your facility policy. Ensure that manufacturer's instructions and contact times are followed.
- Place MDRAB patients in private rooms or cohort; consider cohorting healthcare providers.
- Adhere to contact precautions every time. Acute care facilities should use contact precautions and long term care facilities should use modified contact precautions.
- If patient must leave his or her room, ensure that precautions are maintained.
- Where possible, dedicate equipment and supplies to one patient. For items shared between patients, disinfect each item according to manufacturer guidelines.
- Educate patients and visitors about hand hygiene and MDRAB.
- Practice appropriate antibiotic use.

Responsibilities of facility

- Healthcare facilities should assure adequate administrative support and resource commitment, as well as timely communication with staff.
- Ensure that processes are in place to promote and monitor hand hygiene, compliance with contact precautions, the effectiveness of environmental cleaning, antibiotic stewardship, and a method to flag the medical records of MDRAB patients.
- Assure that good quality surveillance data is collected, analyzed, and shared with staff and facility leadership to support decision making.

References

APIC. 2010. "Guide to the Elimination of Multidrug-resistant *Acinetobacter baumannii* Transmission in Healthcare Settings". <http://www.apic.org/EliminationGuides>

Centers for Disease Control and Prevention. "*Acinetobacter* in Healthcare Settings". <http://www.cdc.gov/HAI/organisms/acinetobacter.html>

World Health Organization. "MDRAB Fact Sheet". http://www.wpro.who.int/mediacentre/factsheets/fs_20101102/en/index.html