

Carbapenem-resistant *Acinetobacter sp.* outbreak in an adult intensive care unit in South Brazil: the importance of surveillance and cleaning techniques

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INTRODUCTION

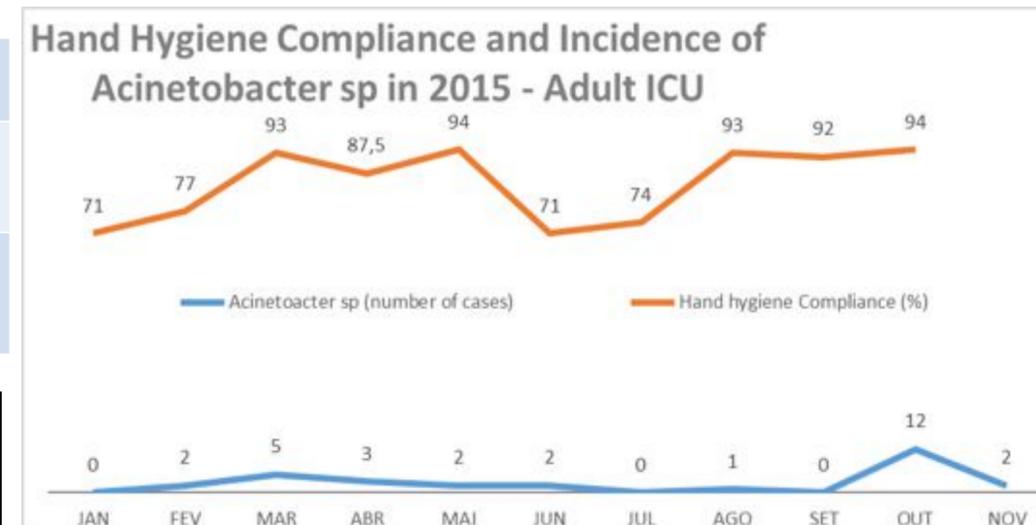
In the last three decades, *Acinetobacter sp* emerged as a relevant pathogen in health-care associated infections (HAIs), specially in critical ill patients. Resistant strains of *Acinetobacter* usually have endemic behavior and great capacity of causing outbreaks due to the ability to persist in wet and dry environments. Hand and environmental hygiene are described as key strategies for the control and prevention of this kind of outbreak. In our city *Acinetobacter sp* is endemic, but not in our institution. From October 1st to November 17 2015, we pass through an outbreak of carbapenem-resistant *Acinetobacter sp* in our adult intensive care unit (ICU).

MATERIALS & METHODS

- Local: **Adult ICU** clinical/surgical with 31 beds.
 - Index case: identification of carbapenem-resistant *Acinetobacter sp* in clinical culture (sputum), in October 6 2015
 - After that, all patients undergoing ICU admission performed weekly surveillance cultures for *Acinetobacter sp* research (frontal, inguinal and oral swabs);
 - We collect surveillance samples from **196 patients** from October 6 to November 17.
 - We performed environment and medical equipment microbiological analysis using a pre-hydrated sponge with sterile 0.9% saline.

RESULTS

<i>Acinetobacter sp</i>	Colonized	Infected
<u>Patients</u>	11 (9 in October, 2 in November)	3
<u>Environment</u>	Ultrasound BIPAP's cap	Attack rate: 7,14%



Actions after outbreak identification:

- Contact isolation in a specific area of the ICU for all colonized/infected patients;
- Cohort of healthcare workers and medical equipment;
- Hand hygiene reinforcement for all ICU staff, as recommended by WHO;
- Training sessions with nursing and physiotherapy teams, responsible for the cleaning medical equipments;

After all actions, **only one** new case of colonization with carbapenem-resistant *Acinetobacter sp* was identified until November 27.

CONCLUSION

The early identification of colonized patients, intensified cleaning of the environment and equipment and high rates of hand hygiene compliance are mandatory to control cross transmission of *Acinetobacter sp* and stop the outbreak.