

**POSTER PRESENTATION**

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# Epidemiology of the first outbreak of carbapenem-resistant *Klebsiella pneumoniae* in Saudi Arabia

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From International Conference on Prevention & Infection Control (ICPIC 2011)  
Geneva, Switzerland. 29 June – 2 July 2011

## Introduction / objectives

We describe our experience in detecting and containing the first documented CRKP outbreak in Saudi Arabia (SA).

## Methods

A prospective investigation of all cases identified with carbapenem resistance during the outbreak period and six months prior.

## Results

During March 2010, a cluster of 6 patients with CRKP was detected. Patients with CRKP were placed under strict contact isolation. Admission and periodic active surveillance cultures showed a downward trend of CRKP clinical cases over the following months to zeros in July and August. All patients had prolonged hospital stay before CRKP detection and the majority had recent history of carbapenem use (75%), colonization/infection with other MDROs (75%), surgical procedures (80%), indwelling devices (83%), and mechanical ventilation (75%). About 33% of patients with CRKP had clinical infection and 58% died during the current hospitalization. PFGE results identified a dominant clone during the outbreak, Figure 1.

## Conclusion

Infection control practices are not enough to eliminate the emergence of resistant pathogens. More active interventional methods including an antimicrobial stewardship program would be essential to combat the emergence of multidrug resistant organisms.

## Disclosure of interest

None declared.

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Published: 29 June 2011

doi:10.1186/1753-6561-5-S6-P295

Cite this article as: Balkhy et al.: Epidemiology of the first outbreak of carbapenem-resistant *Klebsiella pneumoniae* in Saudi Arabia. *BMC Proceedings* 2011 **5**(Suppl 6):P295.

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