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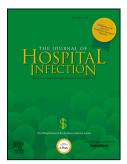
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ACCEPTED MANUSCRIPT

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Management of a hospital outbreak of extensively drug-resistant *Acinetobacter baumannii* using a multimodal intervention including daily chlorhexidine baths

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SUMMARY

Background: Extensively drug-resistant *Acinetobacter baumannii* (XDR-Ab) is an increasingly important cause of healthcare-associated infection. Uncertainties remain concerning optimal control measures for healthcare-associated outbreaks.

Aim: To describe the epidemiology and control of an XDR-Ab outbreak that involved multiple units of a large hospital from March 2012 to January 2014.

Methods: Case-finding included screening of rectum, groin, throat, nose, wounds, iatrogenic portals of entry, and catheterized sites. Antimicrobial susceptibility was evaluated by disk diffusion and E-test. Resistance genes were detected by polymerase chain reaction. Clonality was assessed by pulsed-field gel electrophoresis. Charts of cases were reviewed to identify risk factors for invasive infection. Control measures included isolation and cohorting of cases, hand hygiene reinforcement, environmental decontamination, and source control with daily baths using wipes pre-impregnated with chlorhexidine gluconate.

Findings: A single clonal strain of XDR-Ab colonized or infected 29 patients. Five patients died of XDR-Ab bacteraemia. Transmission occurred primarily on two wards. Colonization was detected at all anatomical screening sites; only 57% (16/28) of cases were rectal carriers. Advanced malignancy was a risk factor for bacteraemia (relative risk: 5.8; 95% confidence

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