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SUCCESSFUL CONTROL OF OUTBREAK CAUSED BY CLONALLY RELATED EXTENSIVELY RESISTANT *ACINETOBACTER BAUMANNII* IN AN INTENSIVE CARE UNIT

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Worldwide drug resistance in *Acinetobacter baumannii* is on rise.

Objective: We report cluster outbreak of extensively-resistant (XDR) *A. baumannii* in a medical intensive care unit (MICU) at a tertiary care referral hospital in Pakistan. During subsequent survey, 10 extensively-resistant A. *baumannii* were isolated from 8 environmental samples and hands of 2 healthcare workers (HCWs).

Materials: In January 2013, XDR *A. baumannii* (Ab1, Ab2, and Ab3) were isolated from tracheal aspirate, blood and sputum of three patients with ventilator associated pneumonia.

Methods: The isolates were resistant to piperacillin, *ampicillin-sulbactam*, piperacillin-tazobactam, ticarcillin-clavulanic acid, ceftazidime, cefipime, ceftriaxone, imipenem, meropenem, gentamicin, amikacin, doxycycline, minocycline, ciprofloxacin and trimethoprim-sulphamethoxazole. Pulsed field gel electrophoresis (PFGE) revealed that isolates from HCWs were similar to the genotype initially isolated from patients' samples. Control of the outbreak was attained with requisite infection control practices and fumigation of the Medical ICU unit. From February 2013 to April 2013 there were no new cases of extensively-resistant isolates in medical ICU. However, two more cases with similar antibiogram MICs and genotype of extensively-resistant isolates emerged in June 2013 from the same MICU.

Conclusion: Stringent infection control measures were implemented this time with continuous monitoring and regular surveillance. Follow up for the next two years has been successful as no clustering of XDR *A. baumannii* were detected from medical and surgical ICUs

Biography

Dr Bushra Sultan is a devoted medical microbiologist.After completion of MBBS, she stepped in the field of Pathology as a postgraduate registrar in department of medical microbiology at Armed Forces Institute of Pathology. She became a fellow of College of Physicians and Surgeons Pakistan. Her journey of research and publications began in renowned national and international journals. She moved to UK and became associate member of Royal College of Pathologists in 2016.She holds the responsibilities of editorial board of International Journal of Infectious Diseases and Therapy. In 2017 she was attached to Basildon and Thurrock University Hospitals -Essex UK. She is an active member of British Infection Association and presented a poster in their Annual meeting 2018. Bushra finds her interest in antimicrobial stewardship, hospital infection control and clinical research. Both of her articles as first author were published in international journals. She hopes to contribute more in the fascinating field of microbiology

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