Effective Infection Control Measures to Prevent Transmission of Multi-Drug Resistant Organisms from Burn Transfer Cases in a Regional Burn Centre

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Abstract: Introduction: Regional burn centres face the spectra of introduced multi-drug resistant organisms (MDRO) from transfer patients resident in MDRO endemic countries. MDRO can cause severe nosocomial infection, which in massive burn patients, will lead to greater morbidity and mortality and strain the institution financially. We aim to highlight 4 key measures that have effectively prevented transmission of imported MDRO. Methods: A case of Candida auris (C. auris) from a massive burn patient transferred from an MDRO endemic country is used to illustrate the measures. C. auris is a globally emerging multi-drug resistant fungal pathogen causing nosocomial transmission. Results: Infection control measures used to mitigate the risk of outbreak from transfer cases are: (1) Multidisciplinary team approach involving Infection Control and Infectious Disease specialists early to ensure appropriate antibiotics use and implementation of barrier measures, (2) aseptic procedures for dressing change with strict isolation and donning of personal protective equipment in the ward, (3) early screening of massive burn patient from MDRO endemic region, (4) hydrogen peroxide vaporization terminal cleaning for operating theatres and rooms. Conclusion: The prevalence of air travel and international transfer to regional burn centres will need effective infection control measures to reduce the risk of transmission from imported massive burn patients. In our centre, we have effectively implemented 4 measures which have reduced the risks of local contamination. We share a recent case report to illustrate successful management of a potential MDRO outbreak resulting from transfer of massive burn patient resident in an MDRO endemic area.

Keywords: burns, burn unit, cross infection, infection control

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