Control of an Outbreak of Multidrug-resistant Acinetobacter baumannii

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Introduction

- Multidrug-resistant Acinetobacter baumannii (MDR-Ab) has emerged as an important cause of outbreaks in the hospital setting.
- In 2015 a patient, having suffered a stroke, was repatriated from a developing country and admitted to an acute trust in the North East of England.
- Four weeks after admission the patient was found to be colonised with MDR-Ab.
- Logistic considerations dictated that the patient remained in an open bay, alongside other patients, for a total of six weeks before being placed in isolation. During this time period the patient would have been, by virtue of a vigorous cough, highly infectious to patients and staff and contamination of the environment would have been inevitable.
- Subsequently other patients, across two adjoining wards, were found to be positive for the same organism.

Results

- Over a period of six months a total of ten patients were found to be positive for MDR-Ab; four of these had genuine infection while six were merely colonised.
- Sinks and several items of equipment were found to be colonised with MDR-Ab.
- Some items of respiratory equipment were being inappropriately decontaminated on one ward.
- None of the staff members tested were found to be colonised with MDR-Ab.

Methods

- Affected patients were isolated, with barrier precautions. Hand hygiene practices were reinforced.
- The entire ward environment and all equipment were cleaned and decontaminated using either hydrogen peroxide or ultraviolet light-based methods.
- All patients and many staff associated with the two wards were screened. Affected patients were decolonised with octenidine-related products and, where appropriate, nebulised colomycin.
- Affected patients who displayed signs of infection received antibiotic treatment that included nebulised and/or intravenous colistin.
- Ward practices were scrutinised.

Discussion

- Despite the initial high level of spread of MDR-Ab the outbreak was controlled relatively rapidly.
- Success was due to teamwork and implementation of established and novel measures.