

**A prospective audit evaluating the adherence to St. George's hospital febrile neutropenia policy and to antimicrobial prescribing policy in febrile neutropenic patients:
ABSTRACT**

BACKGROUND

Empirical antibiotic treatment should be started promptly in febrile neutropenic patients. At St. George's hospital, the empirical antibiotic treatment is comprehensive of gentamicin and vancomycin. These two antibiotics should be carefully prescribed and monitored to achieve the maximal efficacy and decrease the risk of toxicity.

METHODS

A prospective audit is conducted at St. George's hospital from April 24th to July 1st 2009 in the oncology wards. The first aim is to check if the first, second and third line empirical antibiotic treatments are prescribed and monitored correctly and the reason for antibiotic prescription is written in the drug chart. The second aim is to understand if a relationship between age/renal function and gentamicin/vancomycin toxicity exists. The data are analyzed by descriptive statistics.

RESULTS

Twenty-four patients were involved in the audit. Only 5 patients (20.8%) received the empirical antibiotic treatment within 10 minutes from diagnosis. Gentamicin first dose adjustment was done incorrectly in 5 patients (20.8%) and the therapeutic drug monitoring was not done after 18-24 hours from the first dose in 16 patients (66.7%). Only 3 patients started the second line empirical antibiotics treatment. The reason for antibiotic prescription written in the drug chart was achieved in only 9 cases (37.5%).

CONCLUSION

The compliance to the febrile neutropenia and antimicrobial prescribing policies is unsatisfactory. It is advisable to conduct another audit within a short period of time. Further research is needed to understand if empirical antibiotic treatment including gentamicin is needed for all patients.