

CATHETER RELATED INFECTION TREATMENT PROTOCOL COMPLIANCE IN THE INTENSIVE CARE UNIT

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OBJECTIVE

- The Hospital Infection and Antibiotic Policy Committee guidelines recommend antibiotics to cover coagulase-negative staphylococcus and Gram-negative bacilli with vancomycin + aminoglycoside or aztreonam if Catheter-Related Bacteraemia (CRB) is suspected. Fungal coverage has to be evaluated.
- To assess compliance with the antibiotic treatment protocol in the CRB in the Intensive Care Unit (ICU).

METHODS

- Observational prospective 6-month study in a 32-bed ICU in a tertiary hospital in patients hospitalized ≥ 48 hours carrying a Central Venous Catheter (CVC).
- Demographic and antibiotic treatment were recorded and compared with the empirical treatment recommended.

Study period: from September 8th 2011 to March 8th 2012
Patients included: 571; 390 (68.3%) males, mean age 61.0 ± 15.6 years
Number of CVC: 844, equivalent to 5578 CVC days
Number of CVC removed for fever: 114
Number of BRC confirmed: 11 (10 patients). Incidence BRC: 1.97 BRC/1000 CVC days.

RESULTS

PATIENT	MICROBIOLOGY	EMPIRIC ANTIBIOTIC TREATMENT	BRC Guidelines
1	Morganella morganii	levofloxacin + piperacillin/tazobactam	
2	Methicillin-sensitive Staphylococcus aureus	meropenem	
3	Methicillin-sensitive Staphylococcus aureus	levofloxacin + teicoplanin	
4	Staphylococcus epidermidis	linezolid	
5	Staphylococcus epidermidis	piperacillin/tazobactam + teicoplanin	
6	Staphylococcus epidermidis	linezolid + meropenem + caspofungin	
7	Escherichia coli	piperacillin/tazobactam	
8	Pseudomonas aeruginosa	piperacillin/tazobactam	
9	Carbapenemase-positive Klebsiella pneumoniae	piperacillin/tazobactam + voriconazole	
9	Carbapenemase-positive Klebsiella pneumoniae	piperacillin/tazobactam + voriconazole	
10	Candida glabrata	fluconazole + levofloxacin	

CONCLUSION

- Protocol compliance is low in the ICU for empirical treatment of CRB.
- A large number of CVCs were removed for fever with no clear correlation with CRB.
- 7 of 10 patients would not receive appropriate empirical treatment if CRB was suspected.