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Characteristics of blood culture surveillance in Vietnam

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Objectives: Blood stream infections (BSIs) are one of the major causes of morbidity and mortality. Clinical analysis of BSI cases would be valuable for the diagnosis, treatment, and prevention of BSI. However, thus far, limited data is available for this disease in Vietnam.

Method: This was a single-center retrospective surveillance study conducted in Bach Mai hospital, Hanoi, Vietnam from 2009-2010.

Result: All 22063 blood culture cases were analyzed in Vietnam. The blood cultures per 1,000 patient-days were 9.78 sets/1,000 patients day. Percentage for obtaining multiple blood cultures sets was 39.5%. Positive rate was 12.5%. The major pathogens isolated were coagulase-negative *Staphylococcus* species (909 cases, 26.4%), followed by *Escherichia coli* (349 cases, 10.2%), *Streptococcus* spp. without *Streptococcus pneumoniae* (339 cases, 9.85) and *Staphylococcus aureus* (280 cases, 8.1%). Other major pathogens were *Klebsiella* spp. (7.9%), *Salmonella* spp. without typhi and paratyphi A (3.0%), *Acinetobacter* spp. (3.5%), *Candida* spp. (3.5%), and *Burkholderia* spp. (4.1%).

Conclusion and Discussion: It is difficult to judge the data appropriately only by Vietnam data. We compared it with Japanese hospitals multicenter result. The blood cultures per 1,000 patient-days, percentage for obtaining multiple blood cultures sets were less than data of Japanese hospitals (9.78 vs 25.2, 39.5% vs 67.2%). In specially, distribution of microbiological data shows unique, *Acinetobacter*, *Salmonella*, *Burkholderia* cases.