



“The objectives of the study were to determine the epidemiology, source and concordance of healthcare-associated bloodstream infections with clinical site isolates.” Culshaw et al (2014).

Reference:

Culshaw, N., Glover, G., Whiteley, C., Rowland, K., Wyncoll, D., Jones, A. and Shankar-Hari, M. (2014) Healthcare-associated bloodstream infections in critically ill patients: descriptive cross-sectional database study evaluating concordance with clinical site isolates. *Annals of Intensive Care*. 4(34) .

Study recommends obtaining paired blood cultures [@ivteam #ivteam](http://ctt.ec/9oefc+)

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Abstract:

Background: Healthcare-associated bloodstream infections are related to both increased antibiotic use and risk of adverse outcomes. An in-depth understanding of their epidemiology is essential to reduce occurrence and to improve outcomes by targeted prevention strategies. The objectives of the study were to determine the epidemiology, source and concordance of healthcare-associated bloodstream infections with clinical site isolates.

Methods: We conducted a descriptive cross-sectional study in critically ill adults admitted to a tertiary semi-closed intensive care unit in England to determine the epidemiology, source and

concordance of healthcare-associated bloodstream infections with clinical site isolates. All nosocomial positive blood cultures over a 4-year study period were identified. Pathogens detected and concordances with clinical site are reported as proportions.

Results: Contaminant pathogens accounted for half of the isolates. The most common non-contaminant pathogens cultured were *Pseudomonas* spp. (8.0%), *Enterococcus* spp. (7.3%) and *Escherichia coli* (5.6%). Central venous catheter-linked bloodstream infections represent only 6.0% of the positive blood cultures. Excluding contaminants and central venous line infections, in only 39.5% of the bloodstream infections could a concordant clinical site source be identified, the respiratory and urinary tracts being the most common.

Conclusions: Clinical practice should focus on a) improving blood culture techniques to reduce detection of contaminant pathogens and b) ensuring paired clinical site cultures are performed alongside all blood cultures to better understand the epidemiology and potential implications of primary and secondary discordant health-care associated bloodstream infections.

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