



Aim of the study was to analyze the frequency of BCs, the rate of central line-associated bloodstream infections (CLABSIs) and to study the association between both parameters on intensive care units in Germany over time” Salm et al (2018).

Abstract:

Background: Blood cultures (BCs) are the gold standard for diagnosing sepsis and are prerequisite for a targeted antibiotic treatment and essential for patient outcomes. Aim of the study was to analyze the frequency of BCs, the rate of central line-associated bloodstream infections (CLABSIs) and to study the association between both parameters on intensive care units in Germany over time.

Methods: Cross-sectional studies at two points in time (2006, 2015) on ICUs participating in the German hospital infection surveillance system. CLABSIs were defined according to the Center for Disease Control and Prevention (CDC). Univariable and multivariable analyses were performed using generalized linear models.

Results: A total of 639 ICUs participated in 2006 or 2015 and 90 ICUs (“core group”) in both years. Overall, 2,427,921 patient days from 644,575 patients were analyzed. In the ICU core group the frequency of BCs per 1000 patient days doubled from 57.8 (interquartile range 29.8–101.2; 2006) to 128.2 (IQR 71.6–183.2; 2015). In the same time, the pooled median CLABSI rate decreased from 0.8 (IQR 0–1.9; 2006) per 1000 central-line catheter days to 0.2

(IQR 0–0.9; 2015).

Conclusions: From 2006 to 2015 the frequency of BCs increased on ICUs in Germany and is now within the recommended 100 to 200 BCs sets per 1000 patient days.

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Reference:

Salm, F., Schwab, F., Behnke, M., Brunkhorst, F.M., Scherag, A., Geffers, C. and Gastmeier, P. (2018) Nudge to better care – blood cultures and catheter-related bloodstream infections in Germany at two points in time (2006, 2015). *Antimicrobial Resistance & Infection Control*. 7, p.141.

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