

## **Identifying a central venous catheter (CVC) as the source of bacteremia requires drawing simultaneous blood cultures (BCs) from the CVC and peripheral site and correct labeling of the BC source” Chaftari et al (2017).**

### Abstract:

Background: Identifying a central venous catheter (CVC) as the source of bacteremia requires drawing simultaneous blood cultures (BCs) from the CVC and peripheral site and correct labeling of the BC source. In our emergency center (EC), 52% of BCs collected from febrile cancer patients lacked source information, making the diagnosis and management of catheter-related bloodstream infections (CRBSIs) challenging.

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Methods: Between January 2015 and June 2015, we conducted a quality improvement project in our EC aiming to increase the occurrence of simultaneous BC drawing with accurate source labeling by 10%.

Results: Staff education and monitoring increased average BC source labeling from a baseline of 48% to a much better rate of 70%. Label introduction led to increased source labeling to 94% by June 2015. This project had a significant influence in patients with a CVC and a positive BC because the physician is now able to determine whether the CVC is the source of the bacteremia in 88% of cases compared with 36% at baseline ( $P = .0003$ ).

Conclusions: Education without an active intervention is usually not enough. Simple solutions such as label introduction can have significant influence on patient safety and care. Accurate diagnosis may guide clinicians at the bedside to appropriately manage CVCs in the setting of bacteremia, remove a CVC when indicated, and prevent unnecessary CVC removal with its potential safety and cost-effectiveness implications.

Reference:

Chaftari, P., Chaftari, A—M., Adachi, J., Hachem, R., Raad, S., Natividad, E., Oliver, N., Ellickalputhenpura, B., Jiang, Y., Tarrand, J. and Raad, I. (2017) Improvement in the diagnosis of catheter-related bloodstream infections in a tertiary cancer center. *American Journal of Infection Control*. 45(3), p.e34-e39.

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