

This unique collection system can reduce the risk of blood culture contamination significantly and is designed to augment, rather than replace, the standard phlebotomy protocol already in use in most health care settings” Bell et al (2018).

Abstract:

PROBLEM: False-positive blood-culture results due to skin contamination of samples remain a persistent problem for health care providers. Our health system recognized that our rates of contamination across the 4 emergency department campuses were above the national average.

METHODS: A unique specimen collection system was implemented throughout the 4 emergency departments and became the mandatory way to collect adult blood cultures. The microbiology laboratory reported contamination rates weekly to manage potential problems; 7 months of data are presented here.

RESULTS: There was an 82.8% reduction in false positives with the unique specimen collection system compared with the standard method (chi-squared test with Yates correction, 2-tailed, $P = 0.0001$). Based on the historical 3.52% rate of blood-culture contamination for our health facilities, 2.92 false positives were prevented for every 100 blood cultures drawn, resulting from adoption of the unique specimen collection system as the standard of care.

CONCLUSION: This unique collection system can reduce the risk of blood culture contamination significantly and is designed to augment, rather than replace, the standard phlebotomy protocol already in use in most health care settings.

Reference:

Bell, M., Bogar, C., Plante, J., Rasmussen, K. and Winters, S. (2018) Effectiveness of a Novel



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Specimen Collection System in Reducing Blood Culture Contamination Rates. Journal of
Emergency Nursing. April 20th. .

doi: 10.1016/j.jen.2018.03.007.