

Abstract

Objective: This quality improvement project sought to evaluate the effectiveness in utilizing sterile gloves and while also, increasing awareness among staff members through education to reduce blood culture contamination rates in an inner city adult emergency department (ED).

Methods: This project utilized a pre-test/ post-test and pre-intervention/ post -intervention study design using retrospective chart review. The interventions were attending an in-service informational session and utilizing sterile gloves in the blood culture collection process.

Results: Didactic knowledge was collected on 60 clinical staff members in the adult ED during a five day period. Microbial data was collected on 104 blood culture sets or 208 individual bottles. Type of gloves used to collect blood cultures was reported 95 times by clinical staff. Statistical significant improvement was demonstrated (60.5%) in RN and PCT baseline knowledge of blood culture collection processes, blood culture contamination, national standards, and the intended impact the use of sterile gloves may have on contamination rates ($p=0.000$). Additionally, this QI project supports the significant relationship between sterile glove use in blood culture collection as a means to reduce blood culture contamination rates in an adult ED ($p=.005$).

Conclusions: This QI project proved to be statistically significant; blood culture contamination rates went down through the use of education and sterile glove use with blood culture collection.