The Problem
Blood culture contamination extends hospital stays and increases the cost of care. Data showed the contamination rates of the blood cultures drawn in the Emergency Department were significantly higher than those drawn throughout the organization. Despite repeatedly re-educating 100% of the staff using both didactic as well as observational training, we were unsuccessful at decreasing the contamination rates.

Aim/Goal
In 2013 efforts were concentrated on improving the rate for blood cultures drawn in the Emergency Department with a benchmark of <3%. It was determined that re-education would be the best course of action as well as the most cost effective method of correction. When efforts did not improve outcome, collection of Blood Cultures transitioned back to the laboratory which led to immediate reduction in contamination rates.

The Team
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The Interventions
- 24 Classes offered in 2013; 100% of Clinical staff was educated
- No change noted in contamination rates after education completed
- Competency fairs held in 2014; 100% of Clinical staff attended
- No change noted in contamination rates after second round of education
- Moved to having phlebotomists draw all blood cultures on 12/1/ 2014
- Significant decrease in blood culture contamination rates have been noted

The Results/Progress to Date
2014 Results/Finding (12 months)
Total # of Blood Cultures Drawn 4070
Total # of Contaminated Samples 158 (3.9%)
Note: Practice changed in December of 2014
Total # Drawn in December 2014 292
Total # Contaminated Samples 6 (2.1%)

2015 Results/Findings (1 month)
Total # of Blood Cultures Drawn 436
Total # of Contaminated Samples 1 (0.2%)

Lessons Learned
Despite multiple educational opportunities, having the expert perform the blood draw proved to be the best practice.

Next Steps/What Should Happen Next
- Continue to monitor contamination rates
- Begin monitoring blood culture collection delays
- Insure data on timeliness of antibiotics are not effected

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