

Changing the Culture of Blood Culture Contamination

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Changing the Culture of Blood Culture Contamination

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BACKGROUND

- February 2018 LVHN CC ED blood culture contamination rate is 4.6%, LVHN hospital wide goal is < 3.0% contamination rate in blood cultures
- Blood culture contamination can lead to unnecessary and sometimes incorrect treatment, leading to increased cost for both the hospital and the patient (*Gander, 2009*)

EVIDENCE

- Contamination rates tend to be higher at teaching hospitals, reeducation has been shown to decrease rates of contaminated blood cultures (*Bentley, 2016*)
- Requiring a return demonstration during reeducation resulted in a decrease in contamination rates (*Academy of Emergency Medicine, 2009*)
- Using 70% isopropyl alcohol followed by 10% providine-iodine prior to draw results in lower contamination rates (*Wesley, 2014*)
- Providing regular feedback on contamination rates results in lower contamination rates (*Gander, 2009*)

PROCESS/IMPLEMENTATION

- Reeducation was provided to technical partners and nurses in the Emergency Department
- “Bucket rounding” and a Power Point were used throughout all shifts to educate and demonstrate proper techniques and track the staff members who received education
 - “Bucket rounding” is a common form of education in the Emergency Department. Educators present information to staff while checking understanding of the material. Additionally, staff will receive a snack for their time.
- A sample blood culture kit was used during bucket rounding to allow for hands on learning and return demonstration
- Education included points such as:
 - Blood cultures should never be drawn from a preexisting intravenous line
 - Technical partners should be the first choice to draw cultures using peripheral phlebotomy
 - Blood culture draws should be attempted from the opposite arm if an intravenous line is already present, or should be drawn below the site

OUTCOMES/RESULTS

- The initial contamination rate was 4.6% in February 2018
- The goal for the contamination rate post education was to be below the LVHN hospital wide goal of <3.0%
- Post education contamination rate for May 2018 was 3.2%
- Contamination rates decreased post education

NEXT STEPS

- Individual follow up from laboratory with specimen collector initiated
- Investigation of the inclusion of sterile gloves in blood culture kit to further reduce contamination rates

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