

K-HEN SEED GRANT CLABSI INITIATIVE



CLABSI Definition

- According to The Centers for Disease control, Central Line Associated Blood Stream Infection (CLABSI) is, “Serious infection that occurs when germs (usually bacteria or viruses) enter the bloodstream through the central line”.

CLABSI Information continued

- According to the Joint Commission, it is estimated that in patients both inside and outside of the ICU, there are 250,000 CLABSI cases each year.
- Costs to the hospitals for treating these range from \$3,700 to \$16,550 per patients affected
- Estimated number of deaths associated with hospital acquired infection (HAI) is 98,987. One third of these (approximately 32,995) are thought to be CLABSI related.

www.jointcommission.org

Breckinridge Health Statistics

- According to hospital records, approximately 13% of the inpatient population is requiring central line venous access (PICC insertions) due to poor visualization of acceptable IV sites.
- CLABSI rate was currently 0% but risk of potential infection was increased due to the patients requiring PICC insertion.

Breckinridge Health Statistics

- These same patients also suffer mental strain and physical pain due to multiple IV sticks, prior to resorting to the placement of a central venous access.
- This inpatient population includes direct admit patients and also patients who are admitted from the Emergency Department.
- This number EXCLUDED pediatric patients who can suffer from multiple IV sticks due to poor visualization.

Grant Purpose

- Breckinridge Health applied for and was the recipient of one of the 2016 K-HEN Seed Grants.
- Funds from the Grant were used to purchase an advanced vein finder called Accuvein with the intent of reducing need for PICC line placement thereby reducing the risk of CLABSI.

First User of ACCUVEIN



Grant Purpose

- Grant proceeds were also used to purchase tags that identify PICC line lumens and remind nursing staff to “Scrub the Hub” for 15 seconds before accessing to prevent infection.

EDUCATION

- Grant proceeds were used to hold educational offerings on ACCUVEIN usage and also continuing education to be scheduled throughout the remainder of the year on CLABSI and the reduction of CLABSI.

INFECTION CONTROL

- Our infection Control Preventionalist, Stacy Butler, RN BSN, monitored the number of patient PICC line placements after the ACCUVEIN was released for usage.
- Also ongoing monitoring of CLABSI rates was continued.

ACCUVEIN



RESULTS

- Our CLABSI rates continued at 0%
- Ten patients were determined to be difficult vein access (DVA, 2 failed IV attempts)(Fields, 2014) and considered for PICC placement in July 2016.
- The use of the ACCUVEIN reduced the number of required PICC line placement from a potential of 10 to only 4 PICC lines being placed due to DVA.

The American Journal of Emergency Medicine

RESULTS

- This reduced the July inpatient population requiring PICC for DVA to 7%.
- This was a reduction of the approximate 13% PICC requirement average of 6%. (6 total PICC placements for July 2016, 2 excluded for other reasons than DVA)
- We considered the initiative a success due to these facts and will continue to monitor during the rest of the calendar year.

RESULTS

- The only negative results experienced was a delay in equipment shipping that delayed the start date of the project.

Unintended positive results

- Patient satisfaction was tremendous with this. We have used the ACCUVEIN on patients who were KNOWN difficult vein access in the ED as well as on the Acute Med/Surg unit. Patients have voiced great satisfaction with the ACCUVEIN and also with the hospital for trying to provide high quality, technologically advanced equipment for use in their care.

ACCUVEIN



References

- CDC Works 24/7. (2016). Retrieved August 11, 2016, from <http://www.CDC.gov/>
- Fields, J. M., Piela, N. E., Au, A. K., & Ku, B. S. (2014). Risk factors associated with difficult venous access in adult ED patients. *The American Journal of Emergency Medicine*, 32(10), 1179-1182.
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- The Joint Commission. Preventing Central Line–Associated Bloodstream Infections: A Global Challenge, a Global Perspective. (2012, May). Retrieved from <http://www.PreventingCLABSIs.pdf>