



Reducing the Central Line Associated Blood stream Infection (CLABSI) rate in Paediatric Oncology unit by using alcohol impregnated cap (AIC) protector

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BACKGROUND

Central Venous Access Device(CVAD) is commonly used in oncology unit for chemotherapy, antibiotics and blood taking. Central venous catheter (CVC) hub contamination is one of the major risk factor for CLABSI especially an impaired immune system patients. Microorganisms that causes the CLABSI have multiple access points that could lead to infection. Maintain sterility by using the 2% chlorhexidine with 70% alcohol swab to clean the needless connector for 15 seconds in friction and rotation movement before accessing the line is fundamental essential to prevention line infection. AIC was introduced to placing over the CVC hub needless connector as it contains a foam soak of 70% isopropyl alcohol and acts as a physical barrier and provide passive disinfection prior to line access.

AIM(S)

1. To reduce the central line associated blood stream infection (CLABSI)
2. To reduce the time taken for the procedure
3. Shorten patient hospitalisation and reduce healthcare cost.

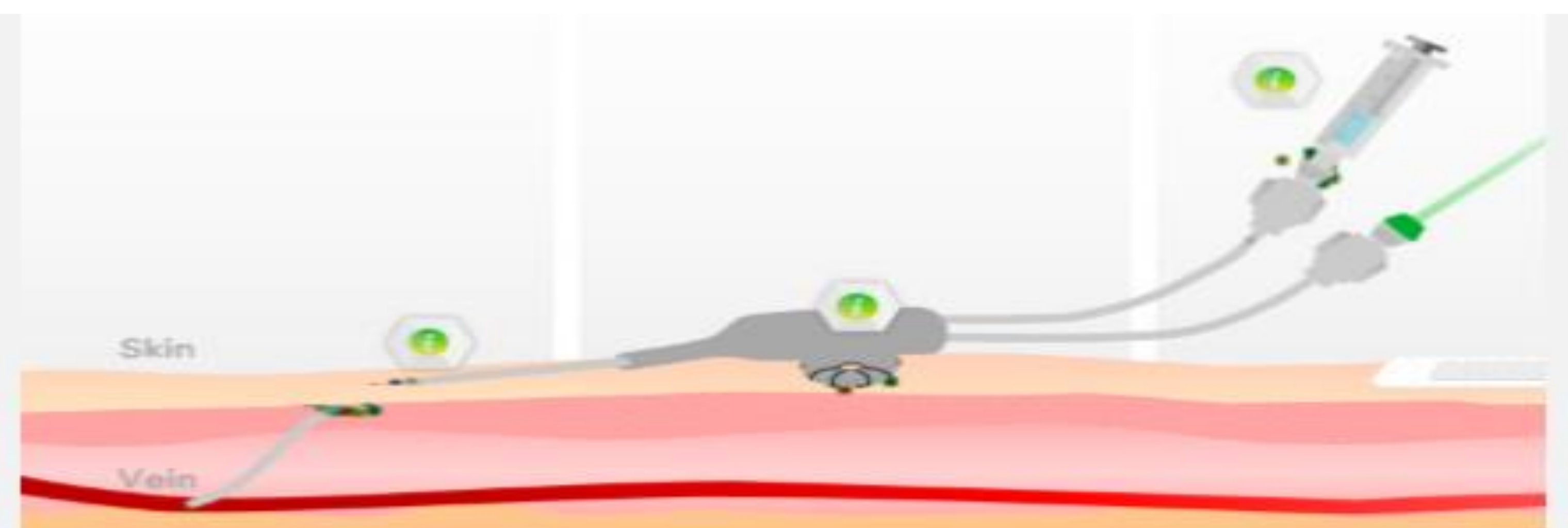
CVAD

A CVAD known as or CVC is made of a non-irritant material, for example, silicone, which means it can be left in place for several weeks or months.



CLABSI

Microbes that causes CLABSI have multiple access points (contamination results when bacteria originating on the surface of the skin diffuses along the outside of the catheter or through the catheter) that could lead to CLABSI



METHODOLOGY

The trial use of AIC for patients with CVCs and age of 5 and above was implemented in both inpatient and outpatient units from July to September with the concern of ingestion of foreign body for the younger age group of population. As there was no record of ingestion of AIC and had received favourable feedback from the nurses, the full implementation was roll out to all patients with regardless of any age in October 2017. AIC can be placed up to 7days if the intravenous tubing is not removed. During the intervention period the use of CVC hub care using a 2% chlorhexidine with 70% alcohol swab for 15 seconds scrubbing time switch to an AIC and therefore no scrubbing is necessary to the CVCs needless connector hub.

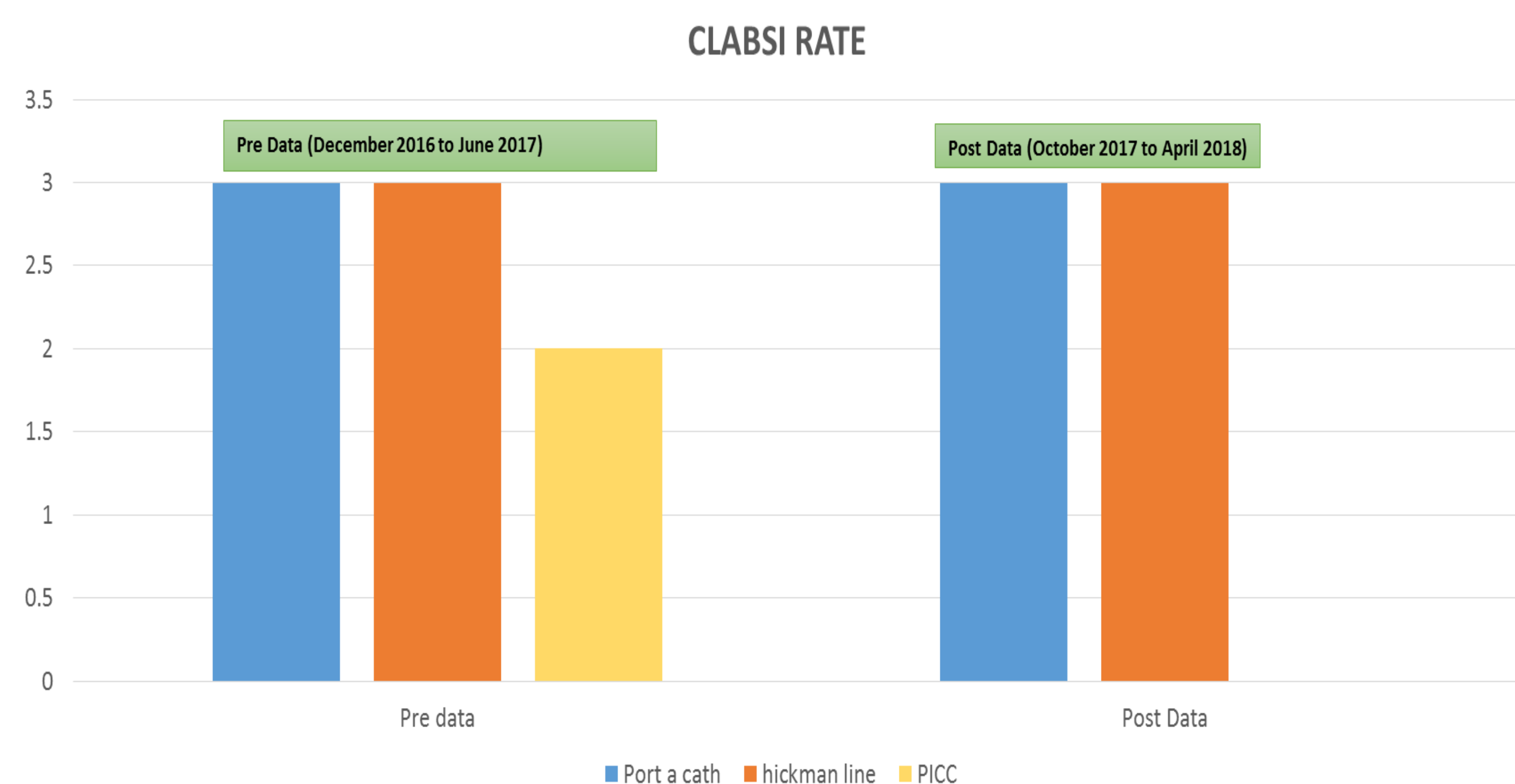
APPLICATION OF AIC



Scrub the Hub — 15 Seconds



RESULTS



There is no significant improvement on the pre and post implementation as it is too early to evaluate the outcome. The team will continue to monitor the CLABSI infection rate monthly and the effectiveness of the AIC.

CONCLUSION

CLABSI has a profound impact on patient's morbidity and it prolongs hospitalisation hence increasing the healthcare cost. Application of the AIC over the CVC hub needless connector potentially help to reduce the CLABSI rate and lead to our goal of achieving zero harm to our patients.

ACKNOWLEDGMENT

We would like to thank our Paediatric oncology unit nursing team in the implementation AIC to our patients with CVCs.