PICOT Statement

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Should multiple interventions tailored to the population or individuals be utilized to prevent Central Line-Associated Bloodstream Infections among the dialysis patients?

**Population/patient**

The population that is affected by the Central Line-Associated Bloodstream is the target population in this project.

**Intervention/indicator**

Many studies have been carried out to verify the use of Alcohol Impregnated Caps to reduce Central Line-Associated Bloodstream Infections. One research from NorthShore University mentioned that "Catheter hub decontamination requires a thorough scrub and compliance varies" (Wright et al., 2013). The researcher utilized sterilization caps with a less sponge soaked in isopropyl with a concentration of 70%, which is wound on every lumen not frequently in use and stays in position up to when the lumen is opened. Once the cap is detached, it's disposed of, and a new one is wound in onto the lumen as mentioned above.

In general, the research entails three stages, whereby the CLABSI rate was observed. The first stage entailed the continuous use of alcohol wipe to clean the hub before gaining access to the line. In the second stage, the fumigation caps were utilized on all the clients with the central lines. The last stage needed disposal of all caps and repeating the phase one procedure. This research is valid to address the question posted regarding the utilization of Alcohol Impregnated Central Caps. The size of the sample is three healthcare centers and entailed 799 participants with a central line that was big enough to establish the correlations (Wright et al., 2013). The findings reported that the rate of contamination was around 12.7 amid the initial stage, and this changed to 5.5 when the sterilization caps were utilized. The rate augmented to 12.0 % after the discontinuation of the caps, and alcohol sponging was resumed. According to the finding from this study, the players in the hospital settings must encourage the utilization of alcohol impregnated caps on a client populace with many persons necessitating the utilization of central lines.

The nursing intervention will include the prevention and treatment of the condition. In the treatment, the patient may use the prescribed antibiotics; such drugs include Systemic antibiotic prophylaxis. The prevention strategy will involve practicing hygiene when dealing with patients. The plan will likewise entail the provision of high-quality patient care that is patient-centered. The Health Care Agency entails professional caregivers who will play a central role in the management of the condition. Such an agency will play a vital role in managing the various conditions among the patients. The nursing practices, in this case, will entail nurses making some efforts to handle the problem are they make some efforts to prevent such incidents.

**Comparison/control**

For the chosen approach, a comparison can be made by evaluating the reported cases of CLABSI before and after the utilization of Alcohol Impregnated Caps. Making a comparison after the proposed plan has been implemented will be used to measure the effectiveness of the program.

**Outcome**

The targeted outcome is to record the reduced cases of CLABSI in the dialysis center after the implementation of the sterile technique during various processes like route dressing, insertions among the others in order to deter the development of the condition.

**Time**

The expected outcome should be measured within six months after the implementation of the plan.

Reference

Wright, M., Tropp, J., Schora, D., Dillon-Grant, M., Peterson, K., Boehm, S., et al. (2013). Continuous passive disinfection of catheter hubs prevents contamination and bloodstream infection. *American Journal of Infection Control*, 41, 33-38. Retrieved November 28, 2013, from the Elsevier database.