Using Tamper-Evident Technology to Protect Patient Sobriety and Reduce Cost of Care

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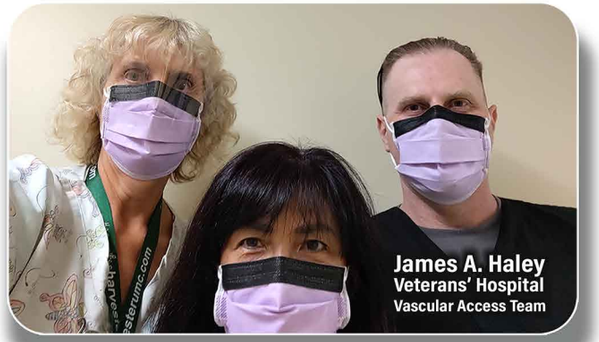
PURPOSE

Our objective is to examine the advantages of implementing tamper-evident technology (TET) for patients with a history of intravenous substance use (PWHSU).

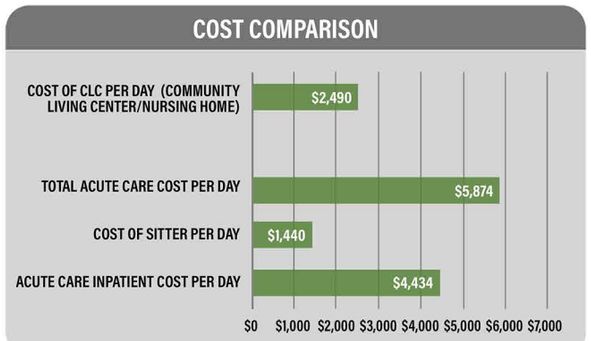
Our priority is to shorten the length of acute care inpatient stays in a Veteran's Administration Health Center while ensuring a cost-effective, safe, and ethical approach to managing our high-risk patients who need IV antibiotic therapy.

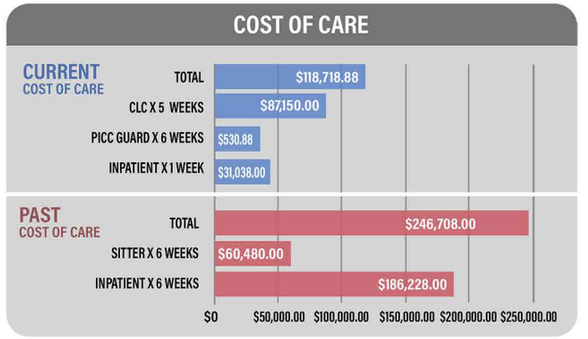


METHODS

The Vascular Access Team took ownership of the management of this population. A TET device was brought to reduce the need for a sitter, protect the patient's sobriety, and facilitate discharge or transfer to the CLC. When the VA Team is consulted for access, the MD can indicate the need for a TET device on the consult, or the Team can determine the need and discuss it with the ordering MD.

The TET devices are kept in the VA Team office and supplied to the floors as needed. The VA Team provides support and education in the use of the device. Staff can then work with the Care Coordinator to manage the patient transfer to the CLC or other discharge plan as soon as possible.





RESULTS

A new catheter access cover that is tamper-evident and tamper-resistant has been developed to address the needs of high-risk patients. This patented medical device was the first in this category to receive FDA 510(k) clearance. This easy to use technology has been implemented at a Veterans Administration Hospital in Tampa, Florida, by the Vascular Access Team. Using TET supports their sobriety and allows for more freedom for the patients, such as visits from loved ones and the ability to leave their room.

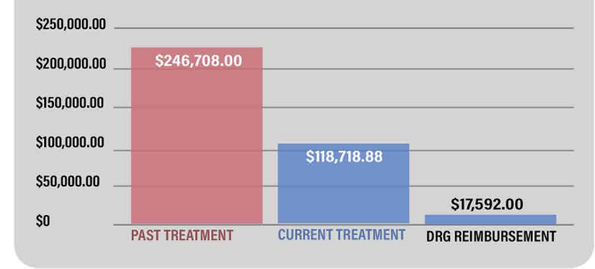
An average acute care inpatient stay here costs $5,874 per day for a PWHSU. Eliminating the need for a sitter or one-to-one care resulted in an average savings of $1440.00 daily. The cost of care in the Community Living Center averages $2490.00 a day. Transferring these patients there sooner to finish their treatment, resulted in a ***cost savings of $1944.00 per day*** while freeing up acute care beds and resources.

CONCLUSION

Tamper-evident technology has significantly improved patient safety, enabling us to treat individuals with a history of substance use with respect, care, and support for their sobriety.

With TET, we could insert a PICC at the beginning of treatment for these high-risk patients. TET provides them more autonomy, eliminates the need for one-to-one care, and expedites transfer to our extended care unit, opening up inpatient beds sooner.

As a result, the hospital has achieved substantial ***cost savings of $127,989.12 per patient.***



BACKGROUND

According to a report by The Hospitalist in 2021, 4%-11% of hospitalized patients in the U.S. are affected by opioid use disorder (OUD)[1]. This has resulted in a staggering annual cost of at least $1.94 billion for hospitals, as revealed by a Premier, Inc. analysis of 647 healthcare facilities nationwide[2].

A study by Tan et al. has revealed that up to 42% of PWHSU engage in intravenous drug use while hospitalized.[3] The James A. Haley Veterans Administration Hospital in Tampa, FL, estimates that a PWHSU treated for endocarditis has a daily inpatient cost of $5874.00. Even with a sitter and other precautions, the risk of these patients using their IV catheter to inject drugs while undergoing care remains high.

Therefore, there was an urgent need to find a way to treat these high-risk patients safely, ethically, and economically while supporting their sobriety.

KEY POINTS

- Opioid abuse continues at epidemic levels across the United States; up to 11% of hospitalized patients have an opioid use disorder.
- DRG reimbursement for endocarditis is $17,592.00.4
- 42% of hospitalized PWHSU will likely use while inpatient.
- Daily IV starts are costly, difficult, and ethically challenging.
- Clinicians are reluctant to order or place PICCs in PWHSU.
- Tamper Evident Technology provides a level of safety and confidence that can lead to earlier discharge.

References

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