

Improving Peripherally Inserted Central Catheter (PICC) Line Dressing Adherence

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Background

- Infusion Nurses Society standard for central venous catheter (CVC) dressings is q7d changes to reduce catheter associated bloodstream infection.
- CVC dressing disruption is a persistently reported complication.
- Blood and loosening of the dressing requires unscheduled dressing changes adding to an increased risk of infection, skin erosion, pain, and cost.

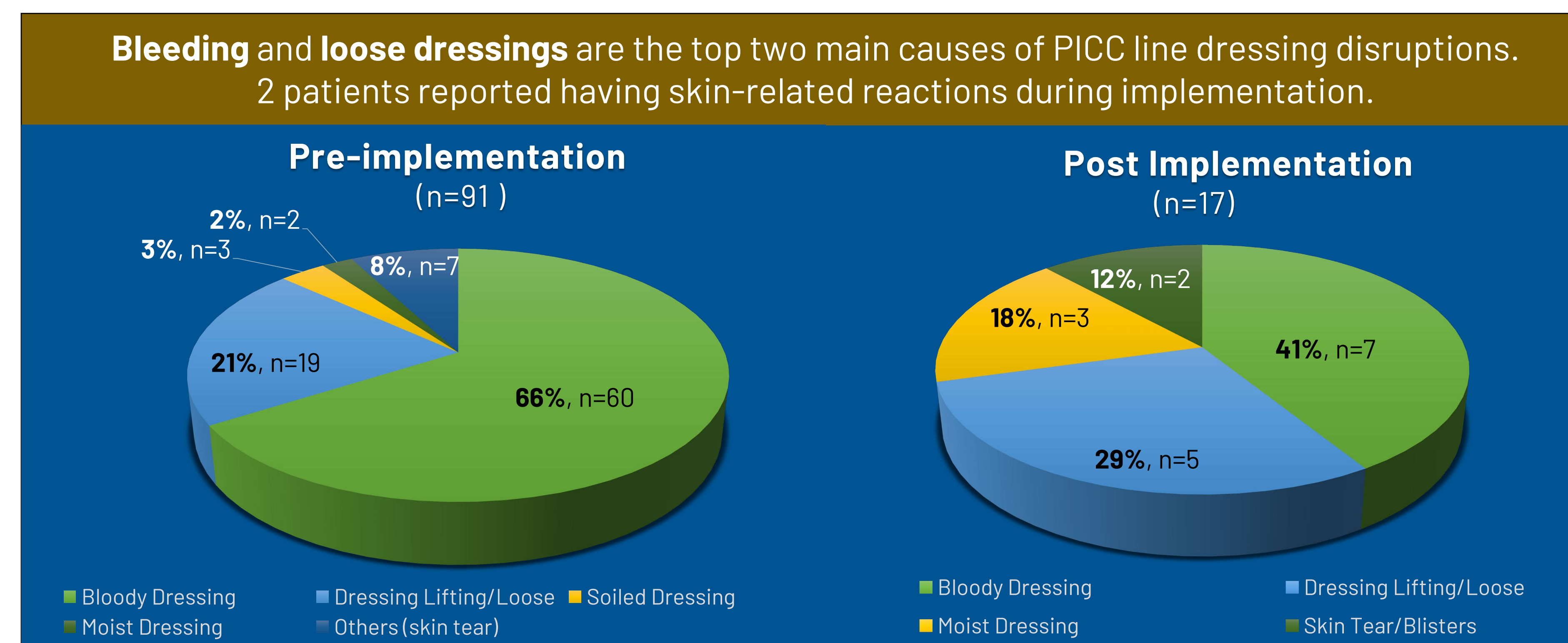
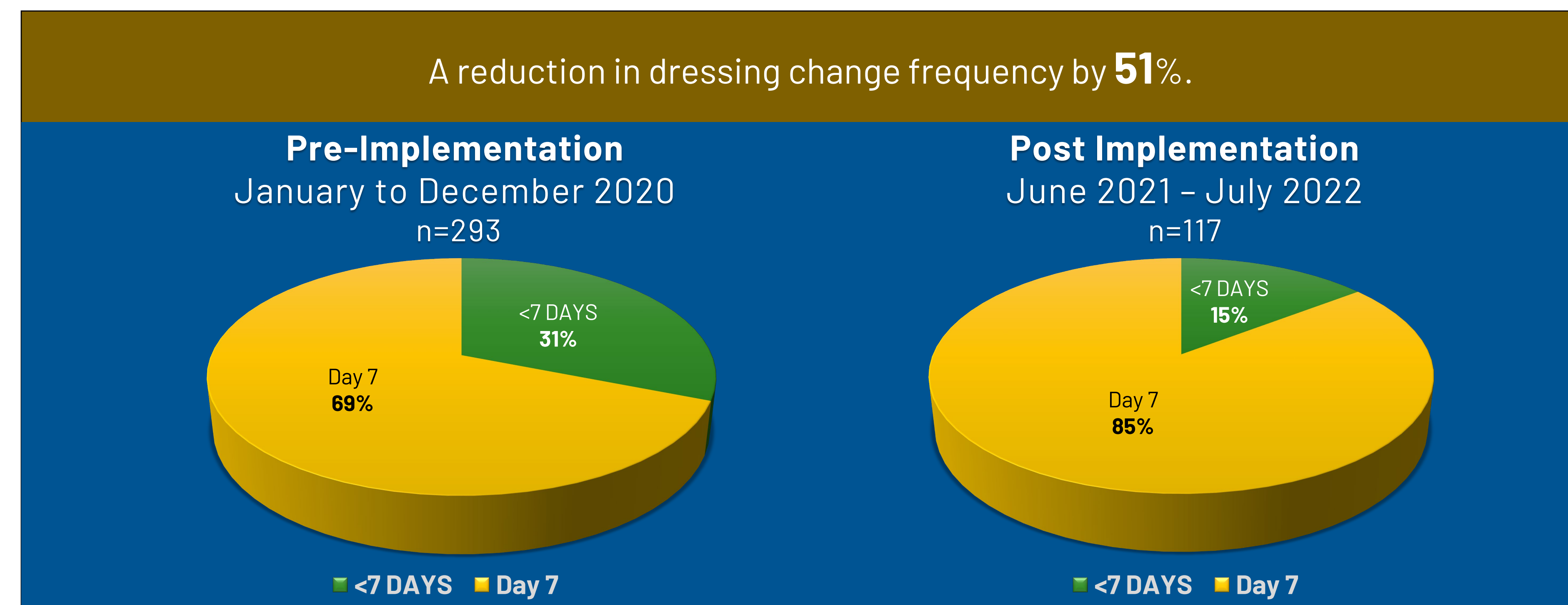
Purpose

This evidence-based practice project aimed to increase PICC line dressing adherence by adding gum mastic (GM) and tissue adhesive (TA) to the standard work protocol.

Methods

- Population:** Inpatients ≥18 years of age with successful PICC placement by the Vascular Access Team (VAT) and hospital stay 7+ days.
- Education/Training:** Provided to VAT nurses including the protocol for gum mastic and tissue adhesive application after PICC line insertion.
- Daily Assessments:** Performed by VAT members to ensure compliance and to monitor outcomes.
- Data Collection:** Using a point prevalence assessment tool.

Results



Cost Savings		CLABSI Reduction	
Savings 1:		<ul style="list-style-type: none"> GM and TA were only applied with PICC line dressing and not on any other type of CVADs. No significant correlation was observed with CLABSI reduction and improved dressing adherence. 	
Material Cost Reduction	\$ 13,872.00		
Savings 2:			
Nurse Efficiency	\$ 6,481.00		
Savings 3:			
CLABSI cost (potential)	\$ 320,600.00		
TOTAL Savings Annually	\$ 340,953.00		
* CLABSI cost at \$ 45,800, JAMA.			

Discussion

- Use of tissue adhesive and gum mastic decreased PICC line dressing disruptions, offering a potential solution to dressing adherence in all CVCs.
- Increasing intact dressings minimizes costs associated with frequent dressing changes, offers time savings due to fewer dressing disruptions, and improves patient satisfaction by avoiding complications and unnecessary procedures.

Implications for Practice

- TA and GM should be studied with all vascular access devices to determine if CLABSI reduction can be realized.
- Consider TA and GM inclusion in CVC dressing kits.
- Central line dressing adherence is an essential part of a comprehensive CLABSI reduction plan.

Acknowledgment

Thank you to the Vascular Access Team for their dedication to providing quality and compassionate care.

VAT RNs: Diane Davis, Summer Cortinas, Chynna Vu, Sabela Barrios, Lynda Fenton, & Jeremy John Tan.

References available upon request.