

# Improvement of Peripherally Inserted Central Catheter (PICC) Line Dressing in Patients with Total Parenteral Nutrition (TPN)

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## INTRODUCTION

A number of colorectal patients in Ward 47 undergoes PICC insertion for various reasons such as conditions that contraindicates oral or enteral feedings, long-term antibiotic and conditions such as intestinal obstruction, or short gut syndromes. PICC dressing techniques has been audited for 1 month in patients with TPN in Ward 47A Colorectal Department. A 30% (3 out of 10) PICC dressing were changed in a week and time spent by a staff nurse is 45 minutes per week. No standardized securement dressing technique and inadequate staff skills in management of PICC lines were observed which will lead to potential delay in delivery of treatment, increase in cost and reduction in patient satisfaction.

#### **OBJECTIVES**







Fig. 1 Current PICC line dressing

Fig. 2 New Securement PICC line Dressing

To standardize the dressing technique and eliminate rework of securing PICC line

### **METHODS**

A mini-skill laboratory was initiated to allow staff to have hands on practice in changing PICC line dressing (refer to Fig. 3 & 4). This skill sessions are conducted twice a week.



Fig. 3



Fig. 4

Use of visual aids to aid staff to improve PICC line dressing and sampling of a new securement dressing for 2 months (refer to Fig. 5 & 6)

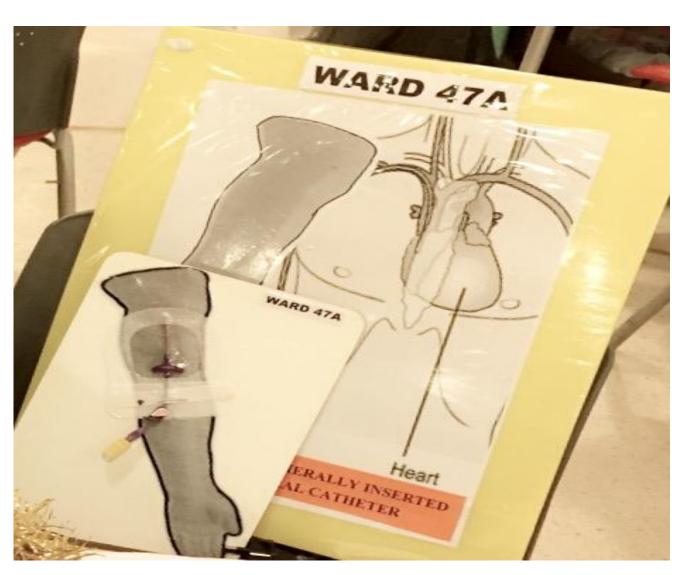
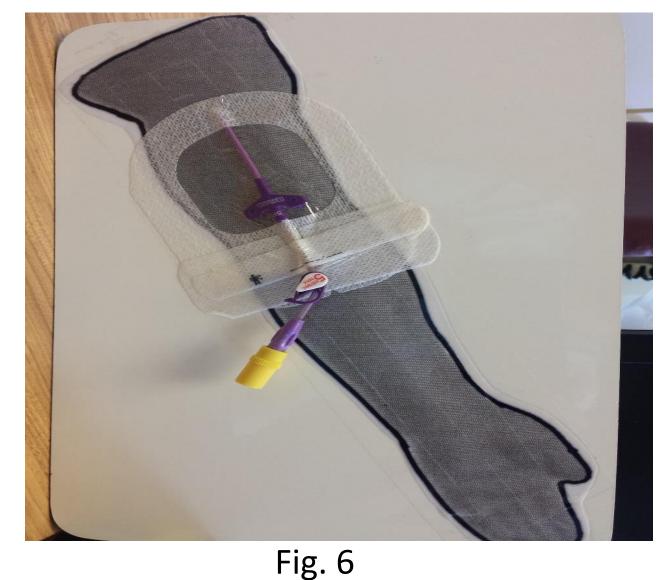


Fig. 5



Competency conducted for PICC line dressing care was done, pre and post teaching session (assessed by multiple choice questions and staff interview).

#### **FEEDBACK**

- 100% of the nurses who tested the the securement dressing that agrees performance of the dressing was comparable to the securement device already in use.
- Patient preference for the new securement dressing approached 100%
- The dressing remained intact for 7 days



**RESULTS** 







**E**liminates Rework Reduces time

**S**taff Satisfaction

consumed in dressing

CONCLUSION

- Post implementation, the number of PICC line dressing changes from 3 to once a week.
- The time saved has significant difference of 45minutes to 15 minutes per week.
- It has significantly reduced cost for change of PICC line dressing from \$35.10 per week (\$140.40 per month) to \$11.70 per week
- On January 2016, the new securement dressing has been approved by the Nursing Department to use hospital-wide for patients with Central Lines.