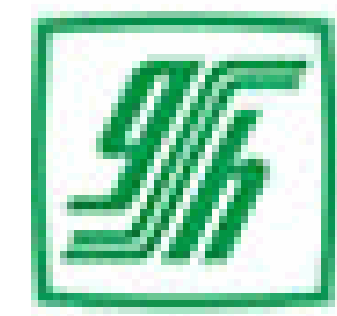


“Keeping It Dry”

Reducing Unplanned dressing change after shower for Total Parenteral Nutrition patients with Peripheral Inserted Central Catheter.

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Background

Peripherally Inserted Central Catheter (PICC), is a thin, flexible tube that is inserted into a vein in the arm and threaded so that the tip lies in one of the large veins; superior vena cava of the heart. PICC allows patient to receive intravenous medication and fluid hydration especially Total Parenteral Nutrition (TPN).

TPN solution is hyperosmolar requires a PICC to deliver the artificial nutrients directly into the heart to prevent extravasation.

Problem: Why dressing gets wet?

A dressing is required to protect the PICC exit site to ensure sterility. Current management of PICC dressing is secured to the patient's arm with a transparent dressing.

Nurses will use a plastic bag to cover the PICC dressing and secure it using surgical tape to facilitate shower for patients. An additional securement method may be applied by securing the top and the bottom of the plastic portion using extra layer of tape (Refer Figure 1).

There is no one standard method and it may vary between different nurses. PICC line dressing may get wet or tear off after shower. Caregivers may also experience stress, frustration and dissatisfaction with patient care (Refer Figure 2).

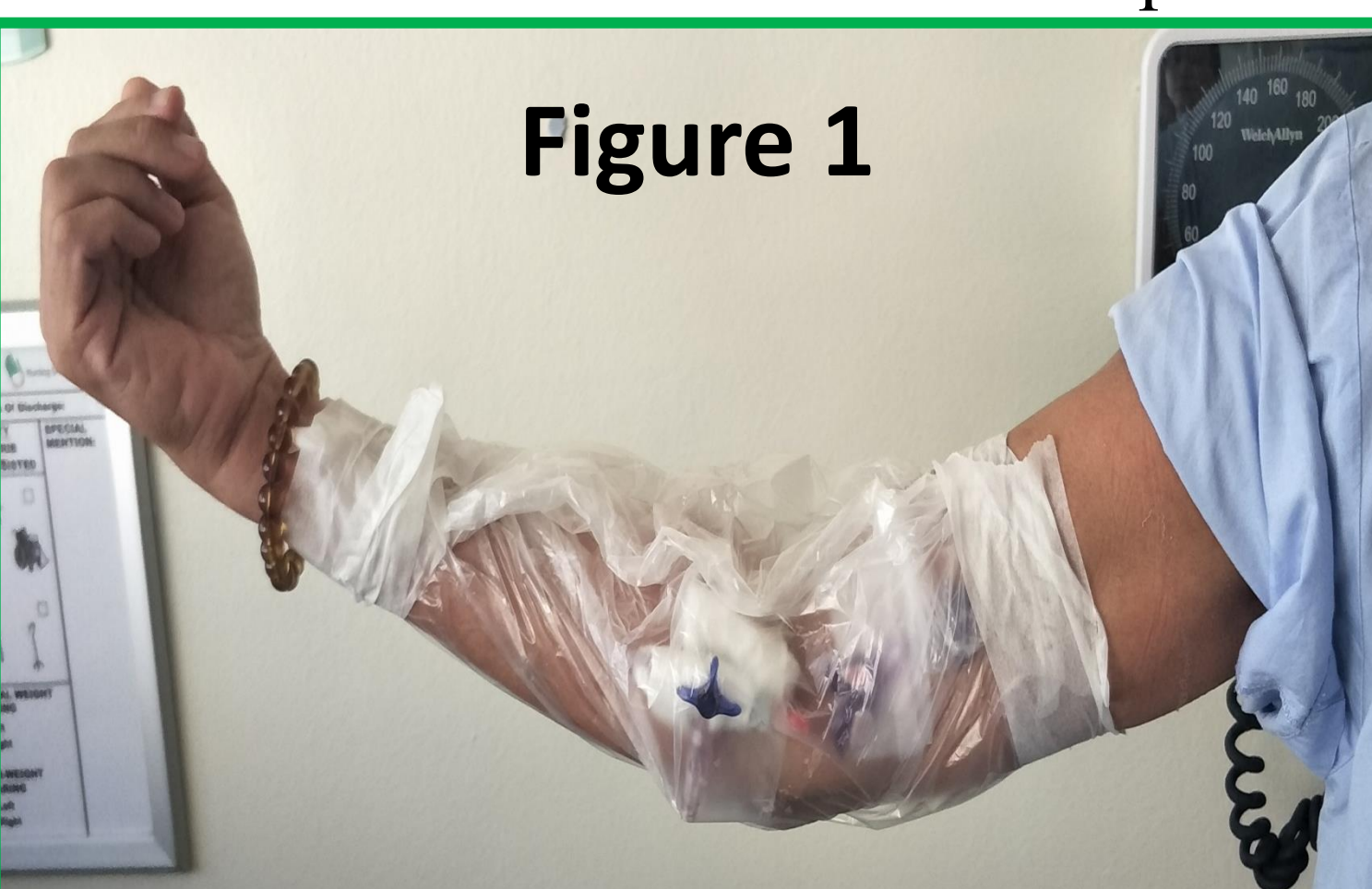
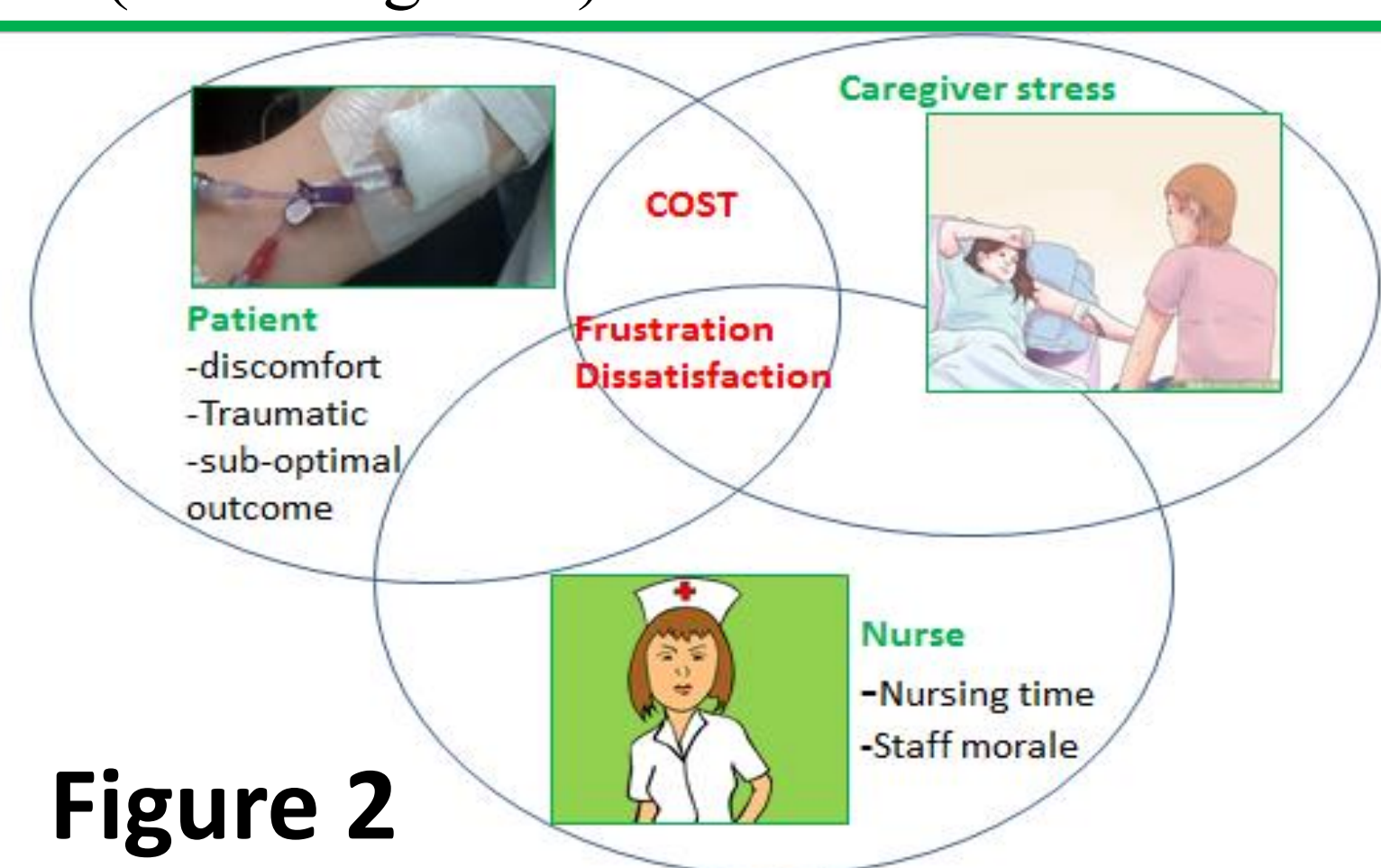


Figure 1



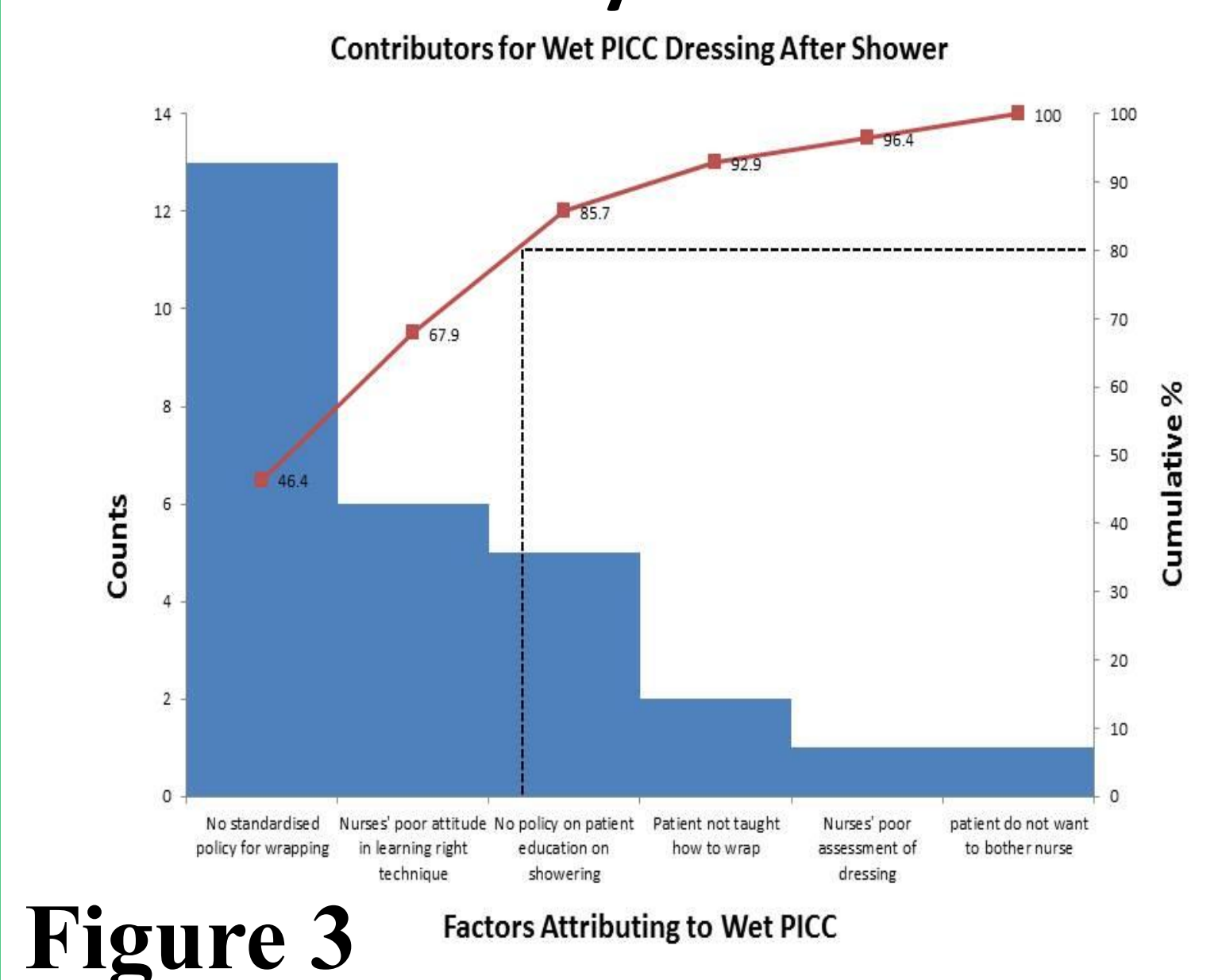
Analysis of Problem

Data collection results shows that on average, 30% of PICC line have unplanned dressing in a week.

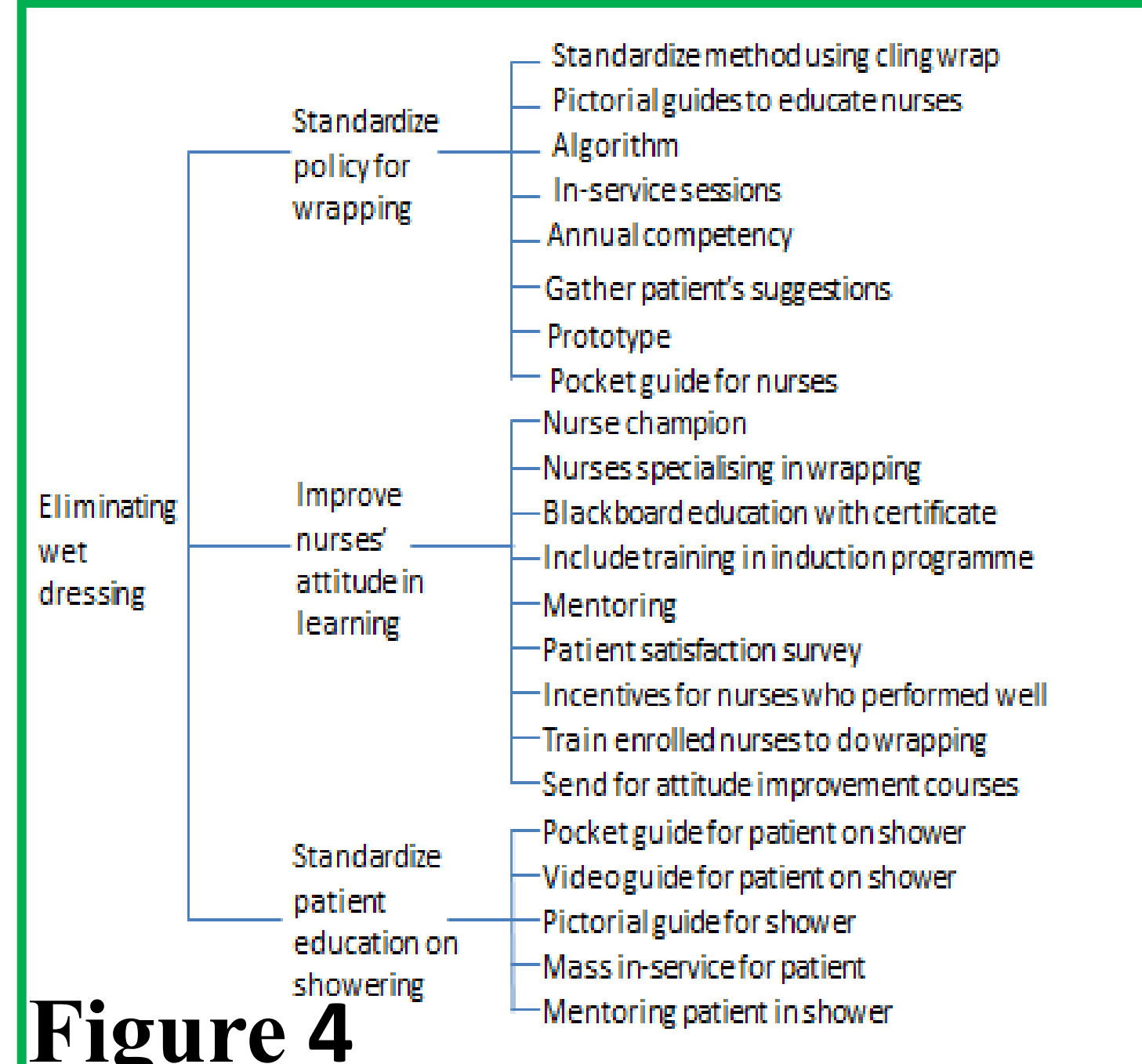
Mission Statement

To eliminate unplanned dressing change after shower for Total Parenteral Nutrition patients with Peripherally Inserted Central Catheter within 6 months.

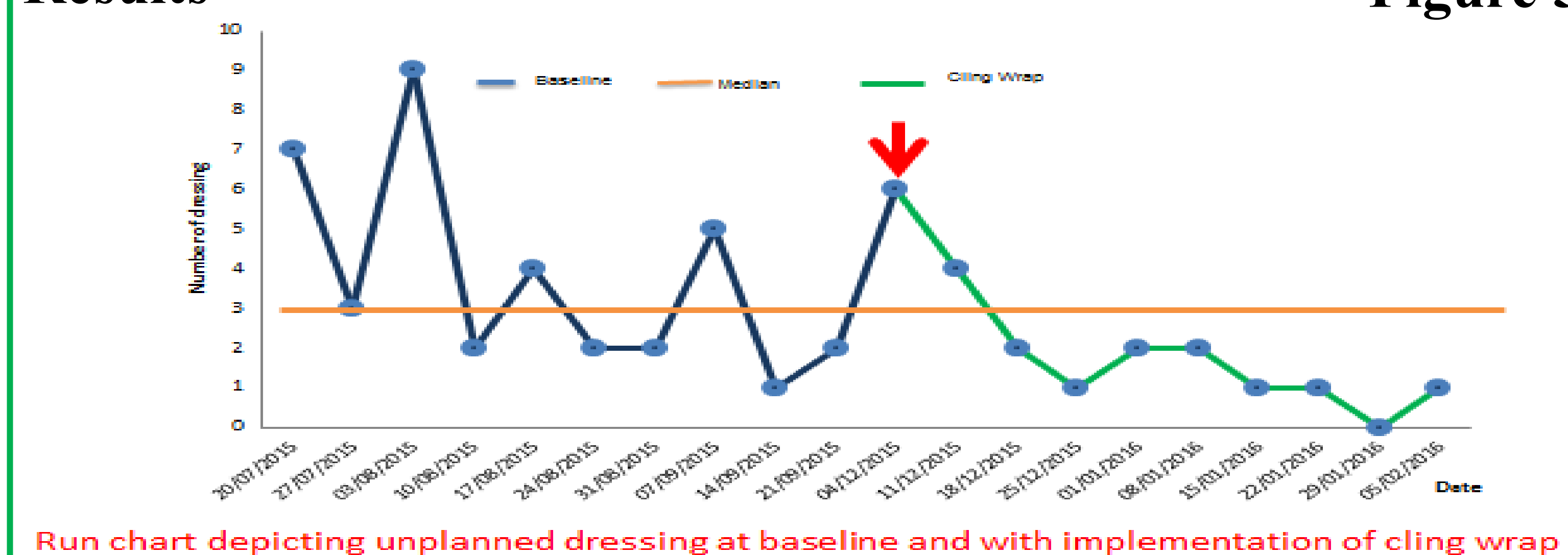
Root Cause Analysis



- A Pareto chart was used to identify final root causes (Refer Figure 3).
- The team developed possible solutions with the aid of a Tree Diagram (Refer Figure 4).



Results



- There was a shift between 11/12/2015 to 05/02/2016, and significant reduction in unplanned dressing change (Refer Figure 5).
- Cost avoidance achieved with reduction of unplanned dressing.
- Optimised patient outcome and comfort. Patient satisfaction improved.
- Improved staff knowledge in dressing technique & increased staff confidences.

Interventions / Initiatives

PDSA 1:

- Using micropore tape and plastic bag to wrap PICC line, reinforcing the use of “dog-ears” to facilitate removal after shower
- After patient's shower, nurses are to trace for the “dog-ear” on the end of the tape and remove it without using sharps e.g. scissors to cut.
- It was implemented for 3 weeks.



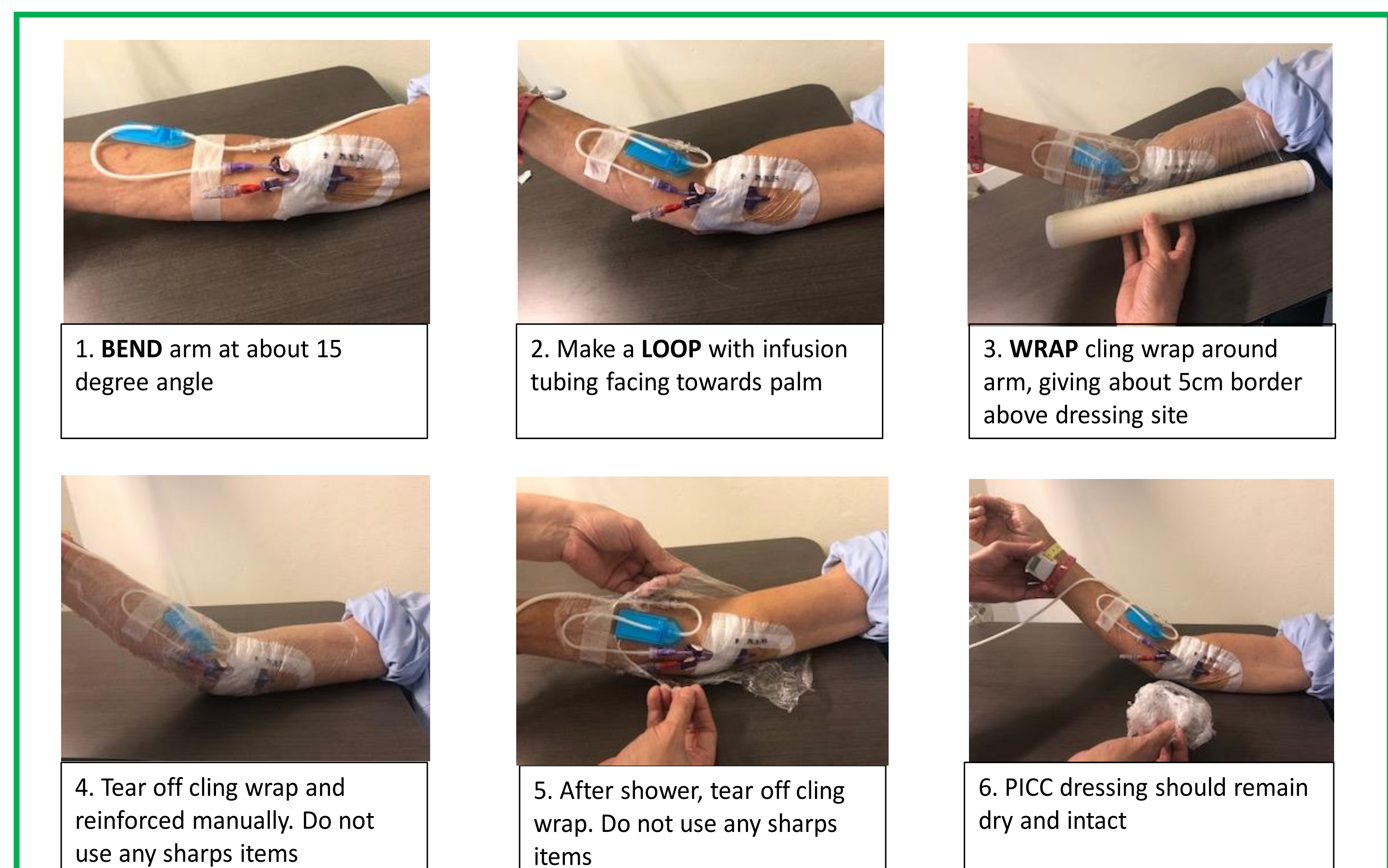
PDSA 2:

- Introduction of cling wrap film, in replacement of the previous method of using a plastic bag and micropore tapes to wrap the PICC when patients shower in Ward 48, 57, 58 and 72.
- This solution is innovative as it has never been done in SGH.
- It is cheap and easily available.
- It was implemented for 3 weeks.



PDSA 3:

- Assigned Nurse Champions in Ward 48, 57, 58 and 72 were responsible in using the cling wrap and introducing pocket guides for nurses with pictorial guide for showering.
- It was implemented for 3 weeks and supervised by Nutrition Service Specialty Nurse Clinician on daily TPN round.



Application of Cling Wrap for patients with PICC Dressing Going for Shower PDSA 3

Sustainability Plans

- The project had achieved high sustainability till to-date
- It was rolled out in SGH for all patients with PSDA 3 diagram uploaded in nursing intranet
- Cling wrap was well appreciated, cheap, has effective waterproof protection over PICC dressing and was very well appraised by the users (patient/family/nurses).
- It enhances staff confidence in using cling wrap technique to protect dressing upon shower for all category of patients with PICC line, not exclusively for TPN patients
- Ward Nurse Managers supported the project by ensuring sufficient cling wrap stocks are available at all times.
- It is individually used for the purpose of infection control.
- The ward Nurse Champions and Nutrition Support Specialty Nurse Clinicians are tracking the sustainability of project during daily round.