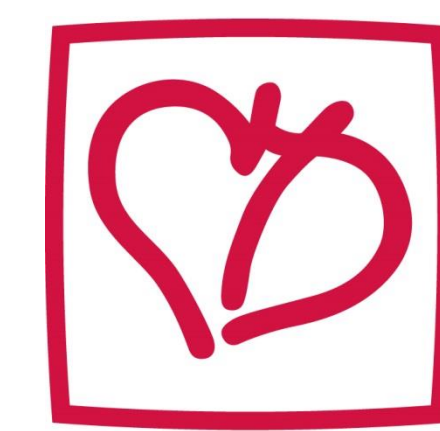




Singapore Healthcare Management 2016

To Improve the Work Process of Dressing Removal for Patients



National Heart Centre Singapore
SingHealth

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BACKGROUND

About 2400 patients undergo cardiac procedure in NHCS annually. Adhesive bandage dressing is applied to the puncture site to arrest the bleeding after procedures, however it has resulted in skin tear in some patients with poor skin integrity. There was an increased rate of skin tear from the data collected. 80% of the patients surveyed were dissatisfied with the bandage removal process.

We aim to improve patient's experience during adhesive bandage removal and provide a standard technique of removal to minimise pain and skin tear for our patients.

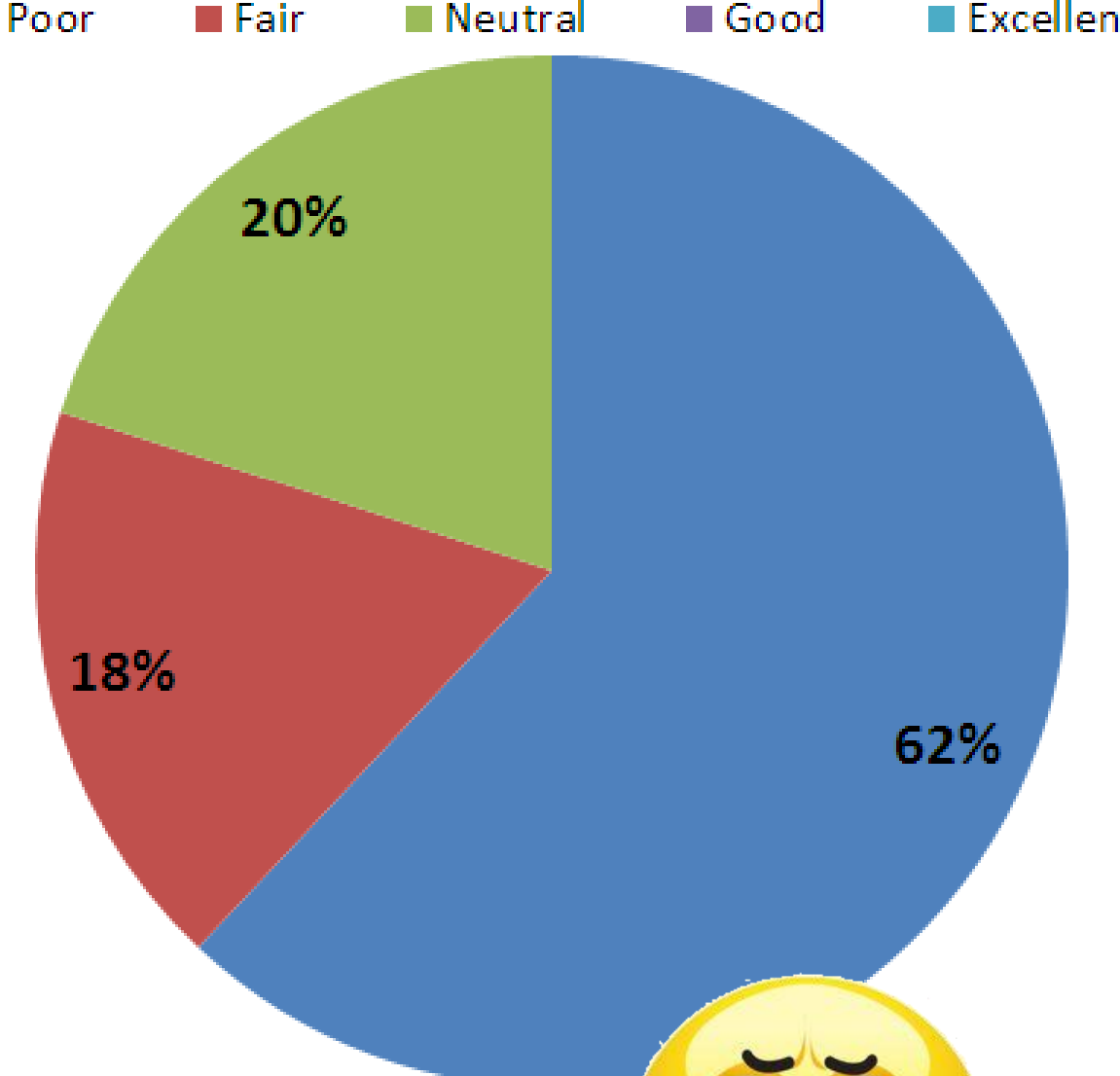
Patients' Feedback

- ☹️ Painful experiences during removal of adhesive bandage especially over hairy body surfaces, thigh or groin areas.
- ☹️ Extended hospital stay due to serious skin tear.

Skin Tear



Patient Satisfaction Level of Adhesive Bandage Removal (Pre-Implementation)



80% Dissatisfaction 😞

Target Setting

- 1 To achieve at least 70% patient satisfaction level of Neutral.
- 2 Target 2: To achieve less than 3 case of skin tear every 6 months.
- 3 Target 3: To achieve 0 extended patient hospital stay due to skin tear from adhesive removal.

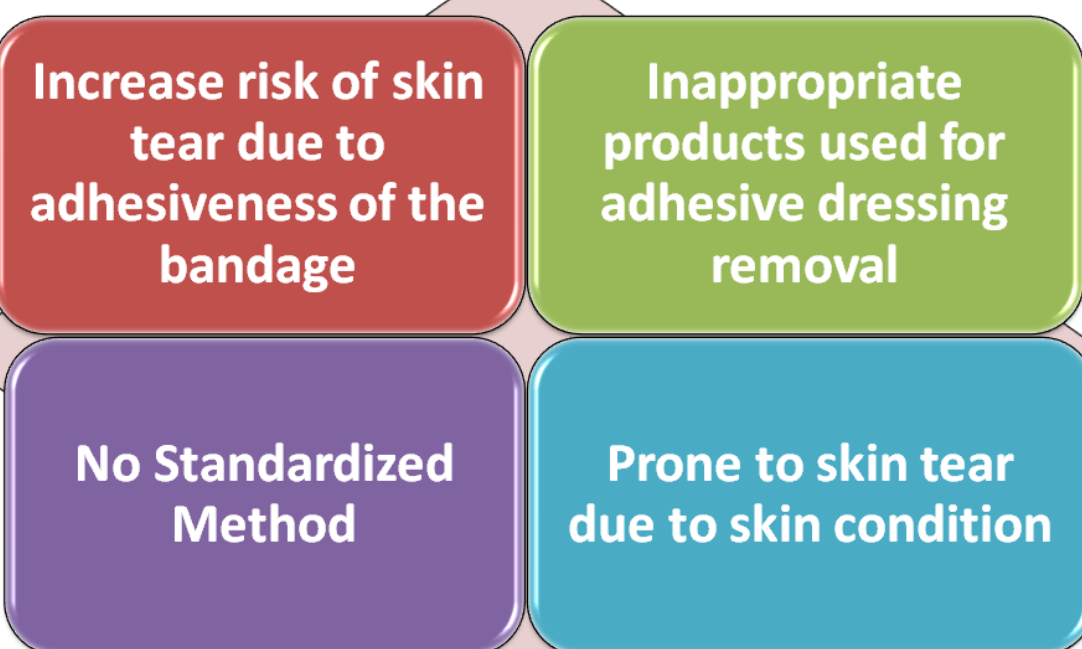
Target 1: Our first aim is to reduce the pain to the minimum and such that at least 70% of the patient will find the process bearable.

Target 2: Skin conditions vary among patients and some have very "fragile" skin as a result of pre-existing condition. It is not realistic to set skin tear cases to zero.

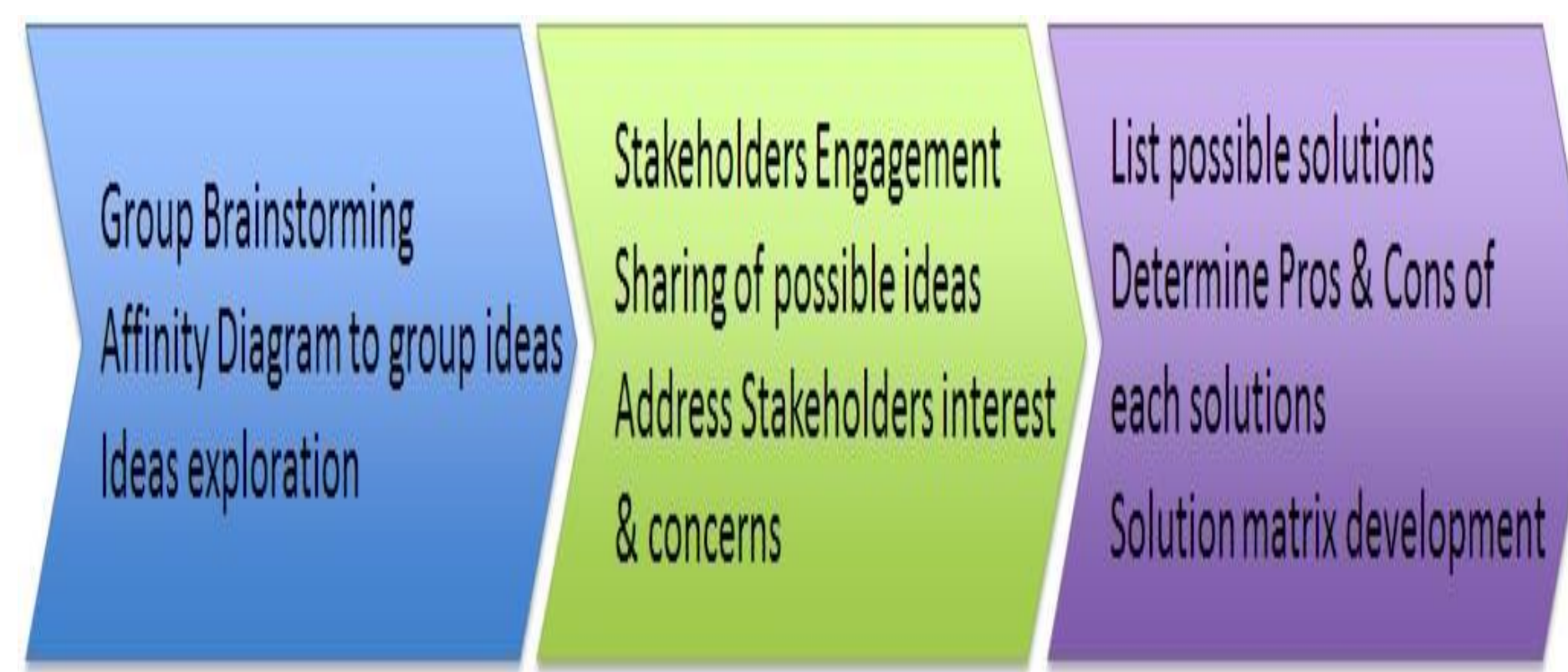
Target 3: The project aims to find a solution to eliminate severe skin tear that will lead to extended hospital stay.

SOLUTION DEVELOPMENT

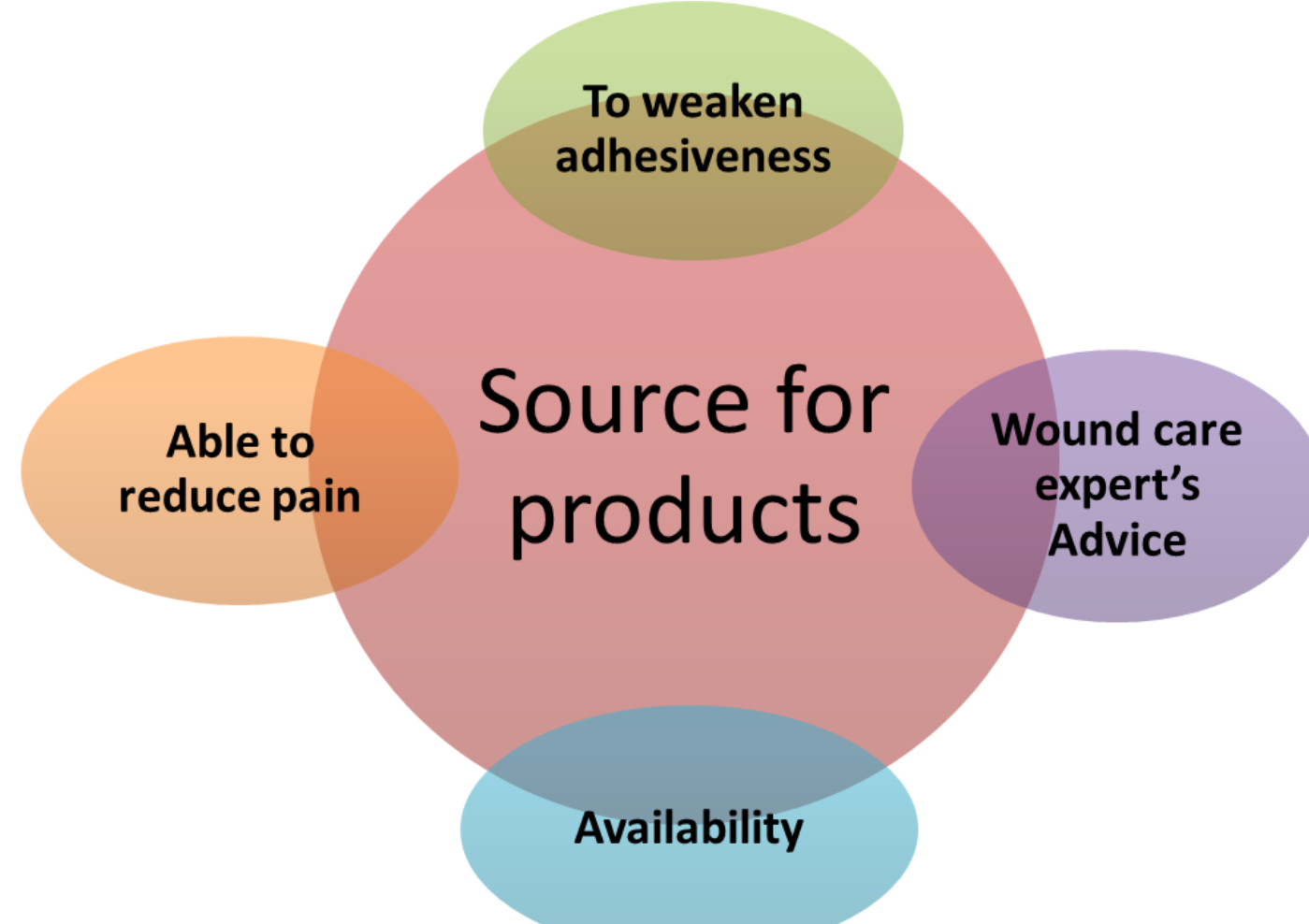
Identification of Root Cause



Solution Development Process



1. Criteria on the selection of Adhesive Bandage Remover



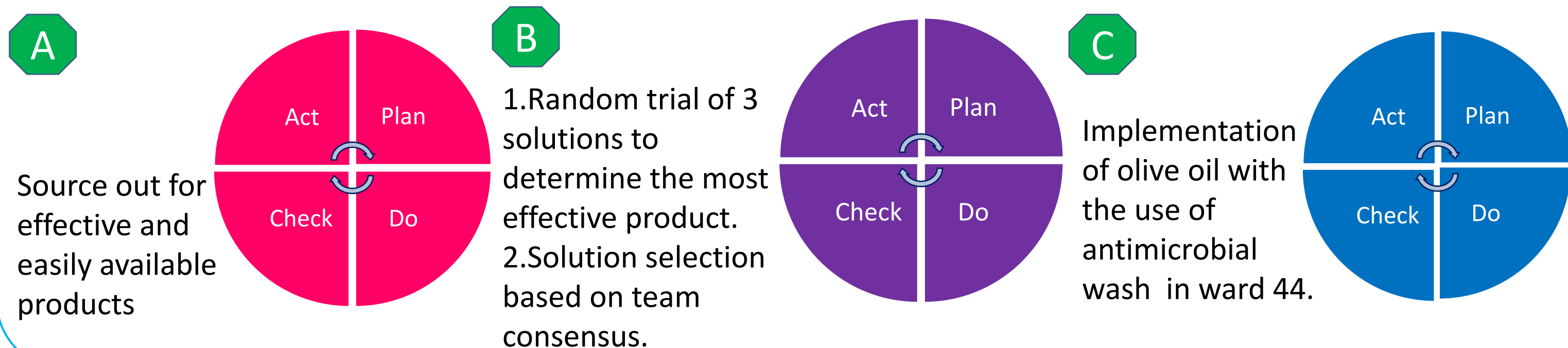
2. Solution Selection based on team consensus

Removal solution	Price per 100ml	Price per patient/use	Effectiveness	Skin reaction	Allergy/Sensitivity	Cost	Readily available hospital	Total score
Nitec spray	\$20	\$5	3	5	5	1	1	15
Olive oil	\$3	\$0.50	5	5	5	3	5	23
Baby oil	\$3.90	\$0.60	5	5	5	3	1	19

3. New steps for removing adhesive bandage using Olive oil

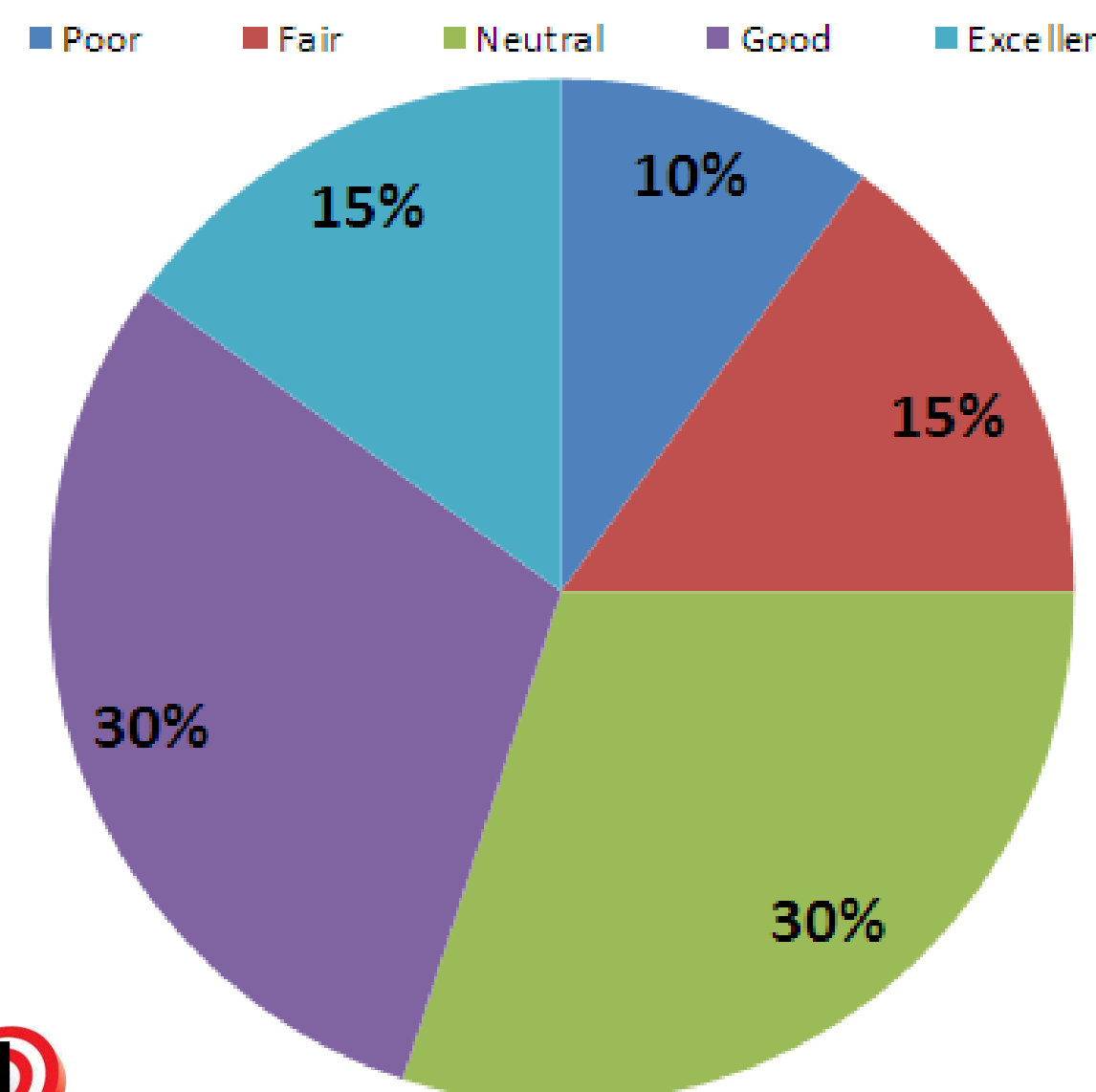


METHODOLOGY

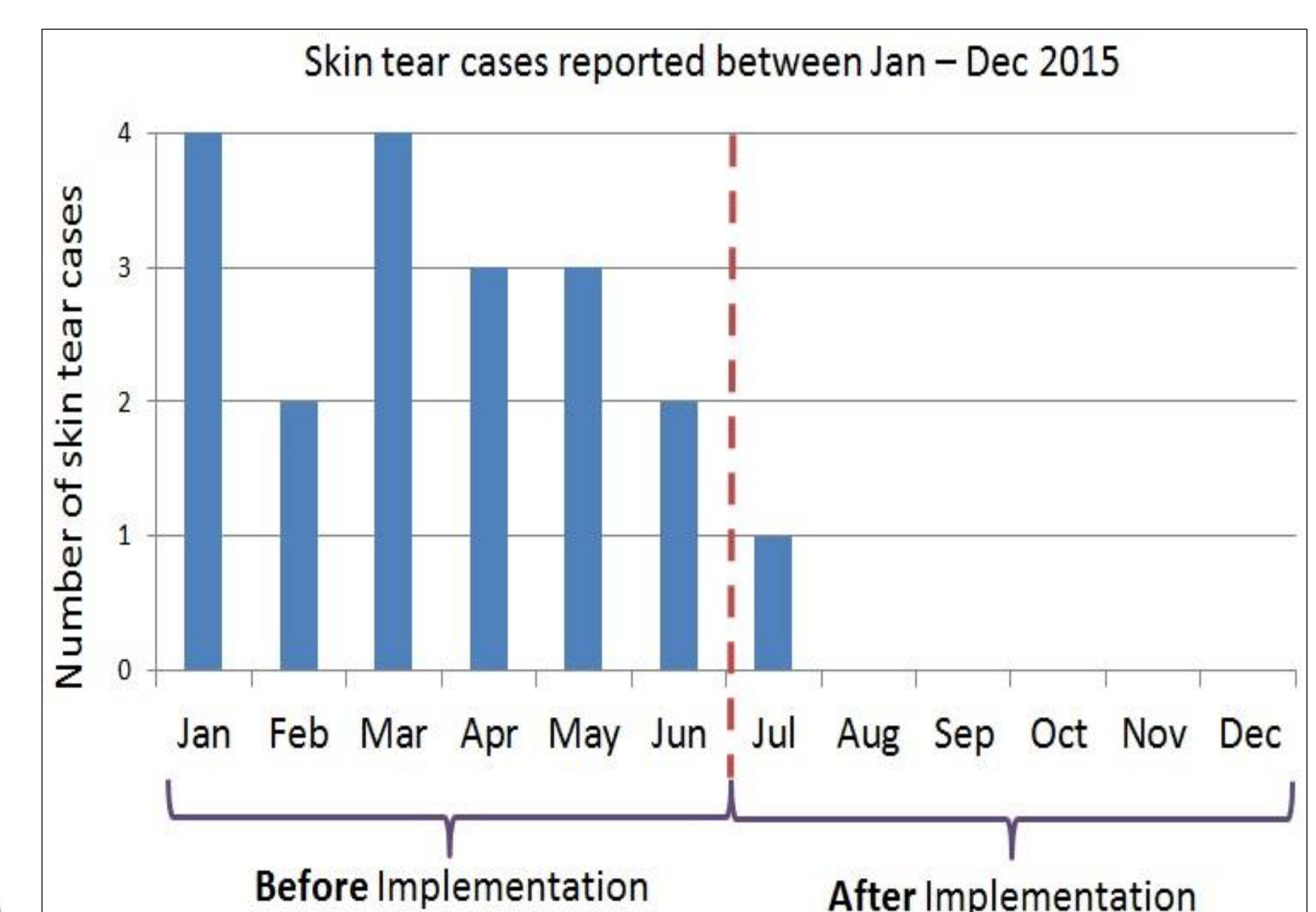
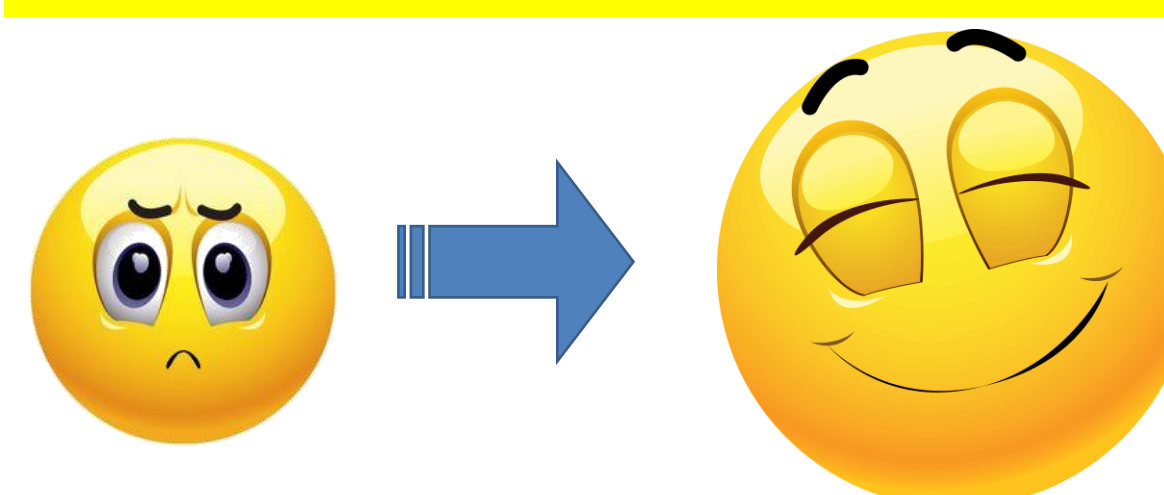


RESULTS

Patient Satisfaction Level of Adhesive Bandage Removal (Post-implementation)



Patients' Satisfaction INCREASED from 20% to 75%



Decreased skin tear rate due to adhesive bandage removal from 17 cases to 1 case over a period of 6 months

0 ZERO extended hospital stay due to serious skin tear from adhesive bandage removal

The project has achieved good results in the reduction of skin tear, increased patient's satisfaction and compliance of practice by all staff. Previously, patients who were immuno-compromised and had underlying skin disease resulted in serious skin tear when adhesive bandage dressings were removed. Since the implementation, there is reduction of the length and costs of prolonged hospitalisation. With the standardized method of adhesive bandage removal, patients experience lesser pain and no serious skin tear.

- ✓ **Manpower Savings : 17 hours per annum**
- ✓ **Patients' Time Savings : 5810 minutes per annum** (on Daily Dressing of serious skin tear at home)
- ✓ **Cost Savings : \$8581 per annum** (on additional treatment & hospitalization)

Sustainability

- ❖ Regular audits are conducted by Nurse Clinicians to ensure compliance of the use of olive oil remover for adhesive bandage.
- ❖ Continuous monitoring of patient satisfaction rate after their procedure to ensure continuous improvement.
- ❖ Regularly feedback sessions with staff.

Intangible Benefits

- Enhanced Patients' Safety
- Enhanced Staff Morale
- Improved Teamwork
- Improved Patient and Caregiver Experience

ACKNOWLEDGEMENT

- Ms Ho Ai Lian (Chief Nurse)
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- Ms Lay Sock Yee (QM Manager)