Understanding Patient Experience With A New Flexible Transparent Mesh Dressing : A Patient Satisfaction Study In A Cohort of Post-Operative Neurosurgical Patients

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Introduction

Long incisions pose challenges for junior neurosurgeons, such as difficulty in approximating wounds edges evenly, distributing tension evenly across the wound and maintaining the integrity of the surgical site.

This can lead to poor wound healing and wound site infection (current rate of 6%)

Root cause analysis and pareto voting identified the top cause being poor wound protection with our current dressing system.

- Dressing does not stick well when stained or when in contact with hair.
- Washing of hair or showering over wound sites may aggravate the problem and is generally not encouraged in the first few days, which results in patient discomfort.
- Dressing change is required at every wound review → result in potential pathway for bacterial contamination.
- Patients with cognitive impairment may also scratch the exposed wound resulting in wound infection / dehiscence.

Figure 1 Ishikawa diagram to identify risk factors of complex wound site infections.
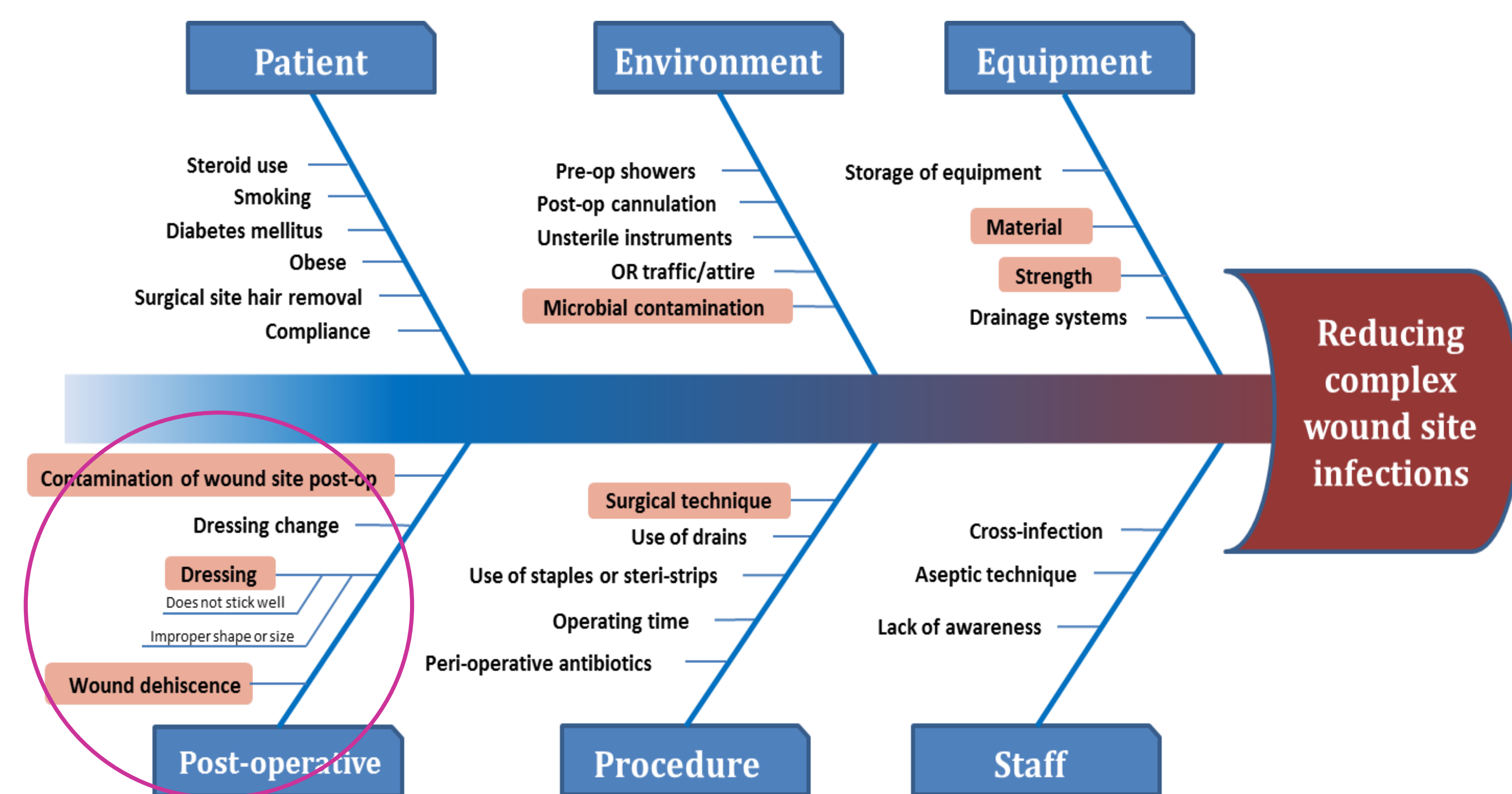
Objective

We propose wound closure using a two-part closure system (Dermabond® Prineo®) with the following aims:

1) Survey the satisfaction level in a small group of neurosurgical patients with this new form of post-operative dressing (Dermabond® Prineo®)
2) Reduction in the rate of neurosurgical wound infection rates by 30% within 12 months.

Methodology

Patients undergoing various neurosurgical operations, which include emergency or elective craniotomy, carotid endarterectomy and anterior chest implantation of deep brain stimulation battery were included in study. They were given a qualitative survey to assess their satisfaction level with the new dressing upon dressing removal. They will also be followed up for 30 days post operatively for any signs of wound infection.

Chest Wall Dressing

Scalp Dressing

POD 14 BEFORE STO

POD 14 AFTER STO
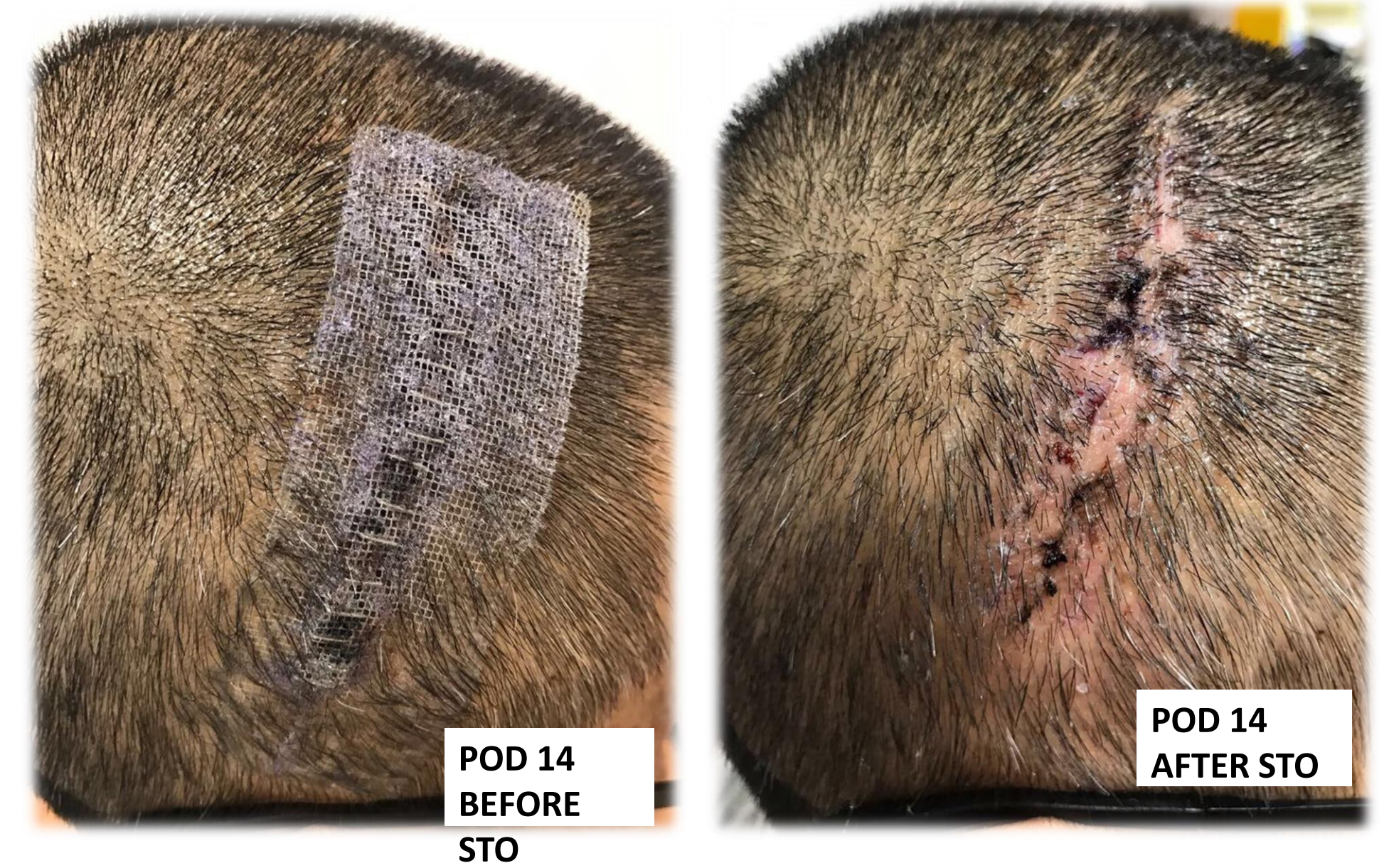
Survey Form

Results

24 data points: 8 female and 16 male patients.

Age range: 32-82 years old

Distribution of dressing location: **chest** (11), **scalp** (8) and **neck** (5)

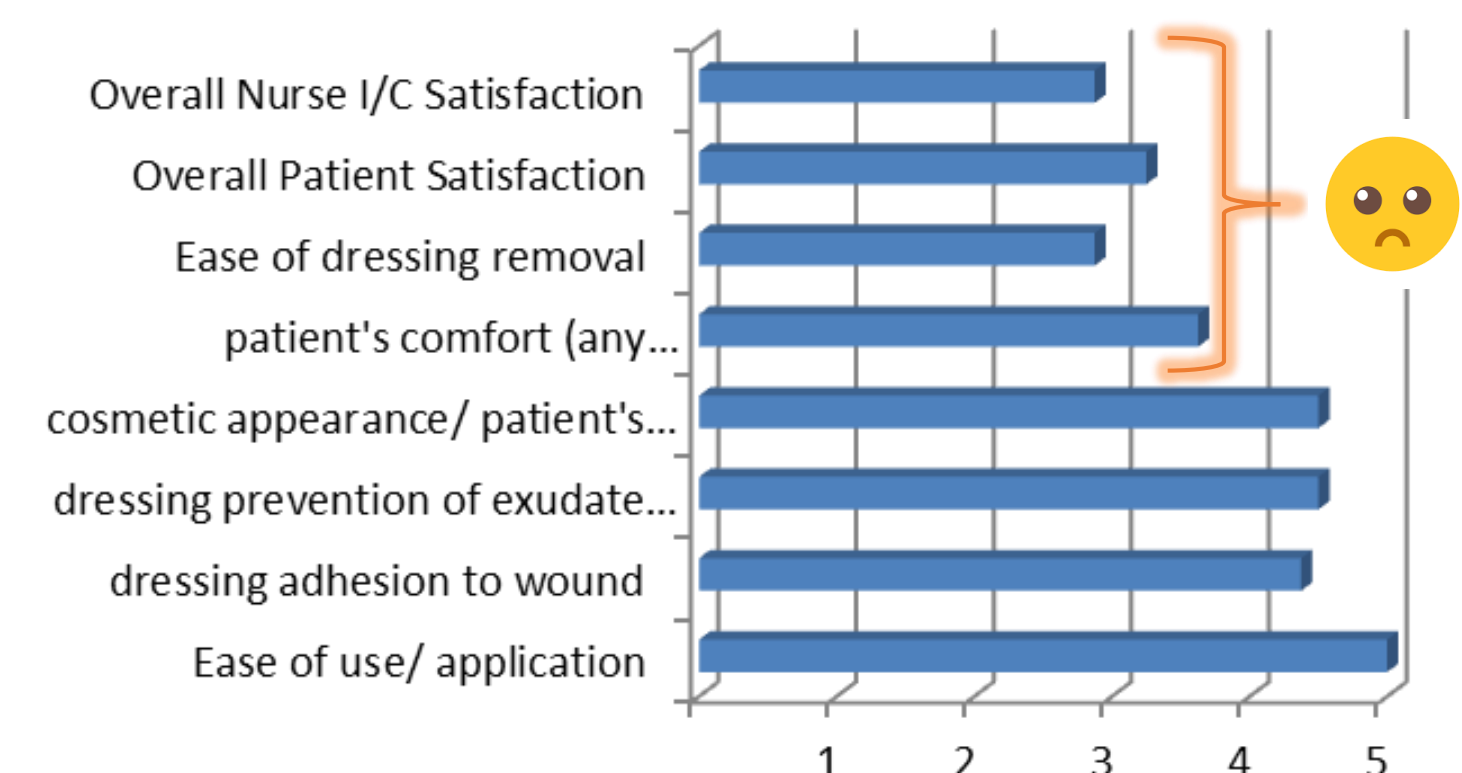Highest patient satisfaction score when dressing was used on chest and neck wounds

Lowest satisfaction score in scalp wounds due to difficulty and pain during dressing removal.

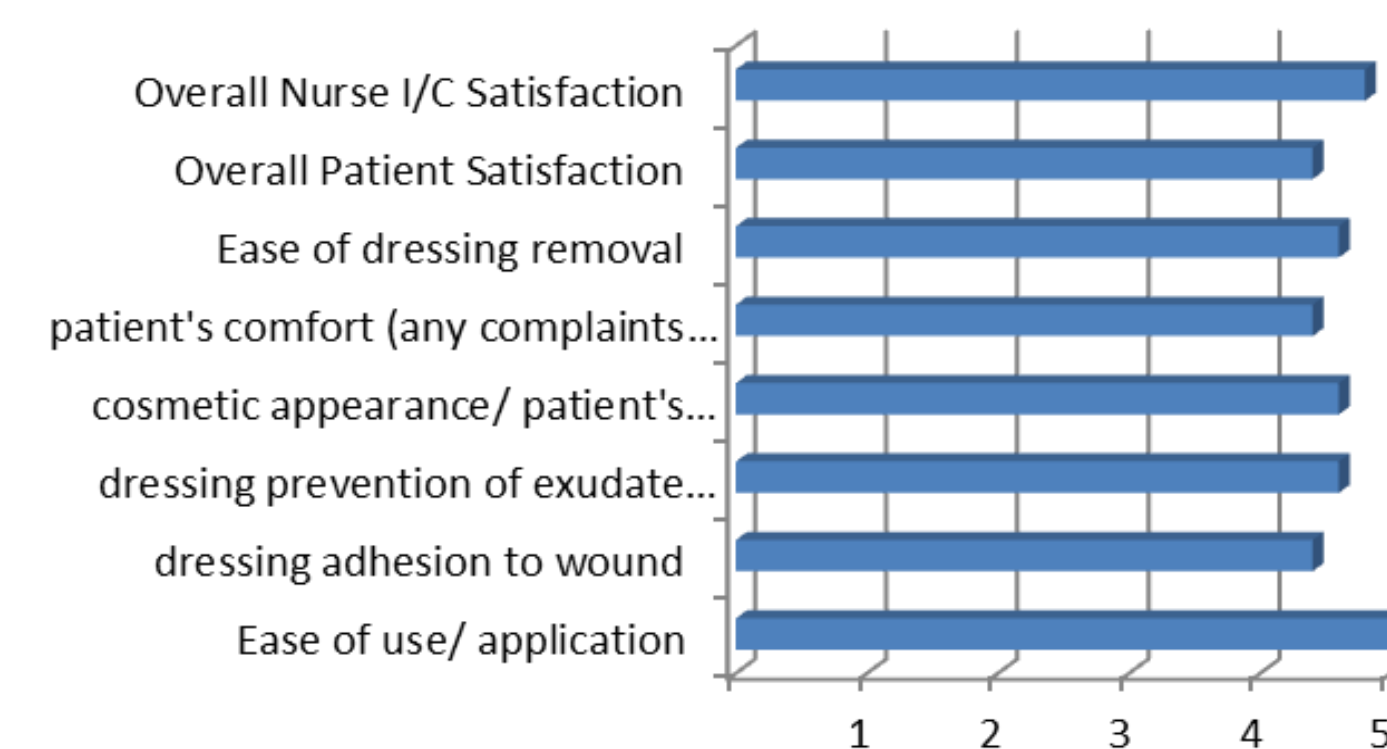Thus far there is no documented surgical wound infection in these patients.

Average Score For Chest
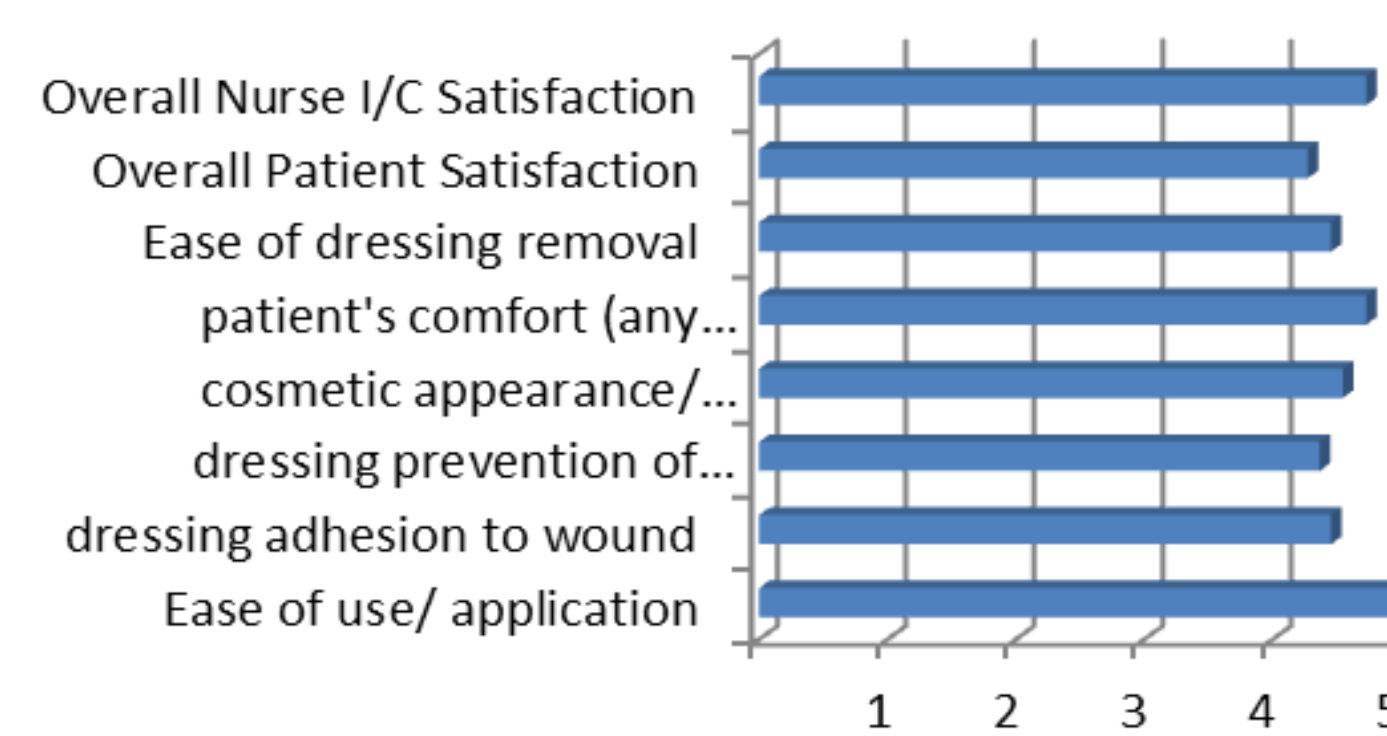
Average Score For Scalp

Average Score for Neck

Score
1 Very poor
2 Poor
3 Fair
4 Good
5 Very Good

Conclusion

This quality project is currently still work in progress. We will continue following up these patients for patient satisfaction and 30-days wound infection rates. Further strategies need to be identified to improve satisfaction.