

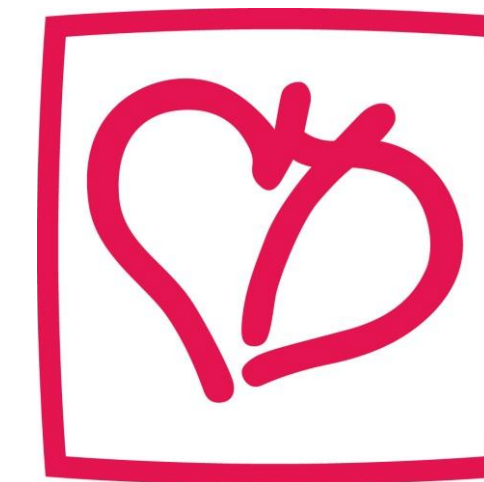


# To Improve Compliance Rate of Wearing Anti-Embolic Stockings for Heart Surgery Patients

Facilitator: Lee Chin Hian

Team Leader: Chang Choong Kek

Members: Dr. Loh Yee Jim, Pearl Wee Gek Choo, Anne Tok Kin Lian, Norazlinda Bte Abdul, Nadiyah Bte Mohd Rahim, Chia Li Sen



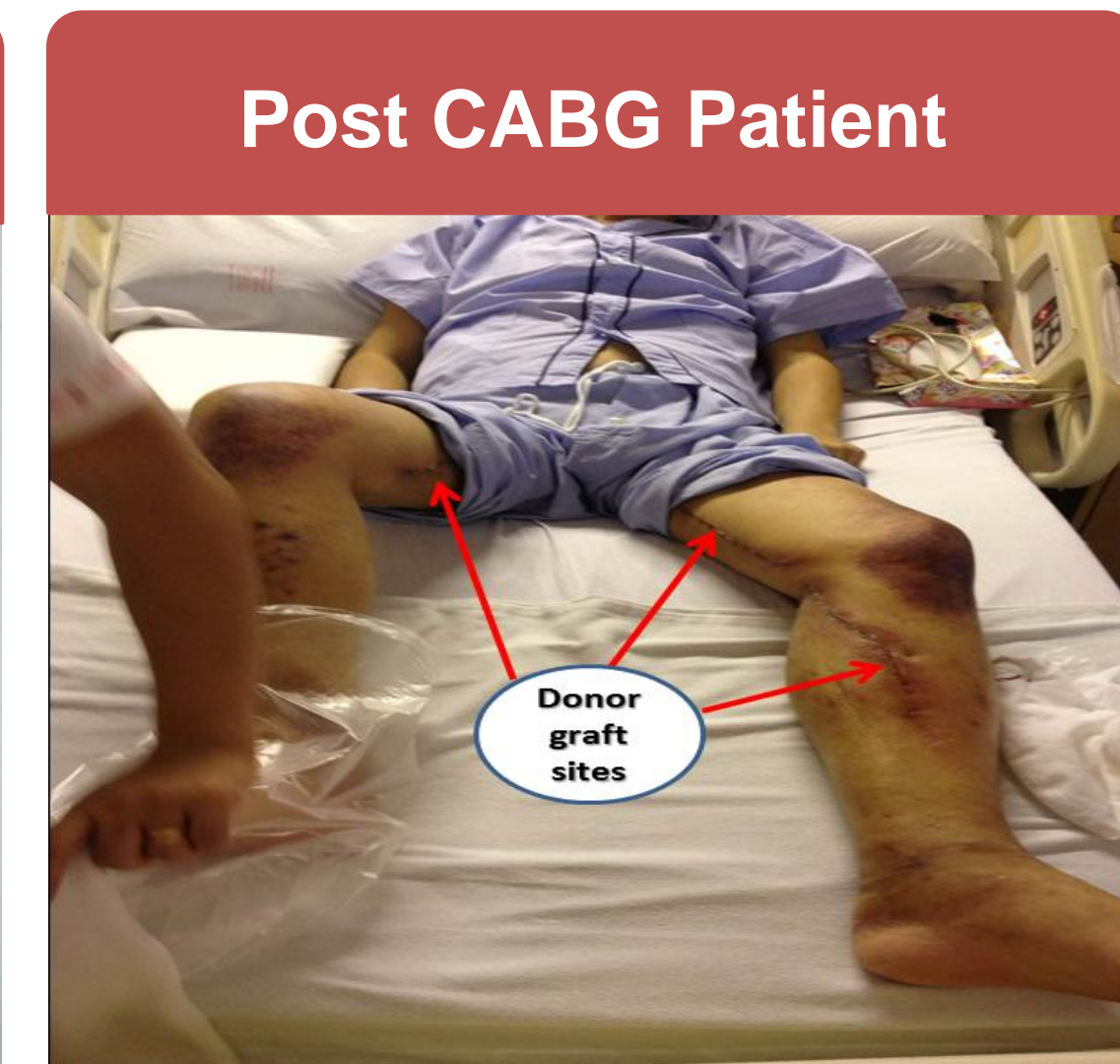
National Heart  
Centre Singapore  
SingHealth

## 1 BACKGROUND

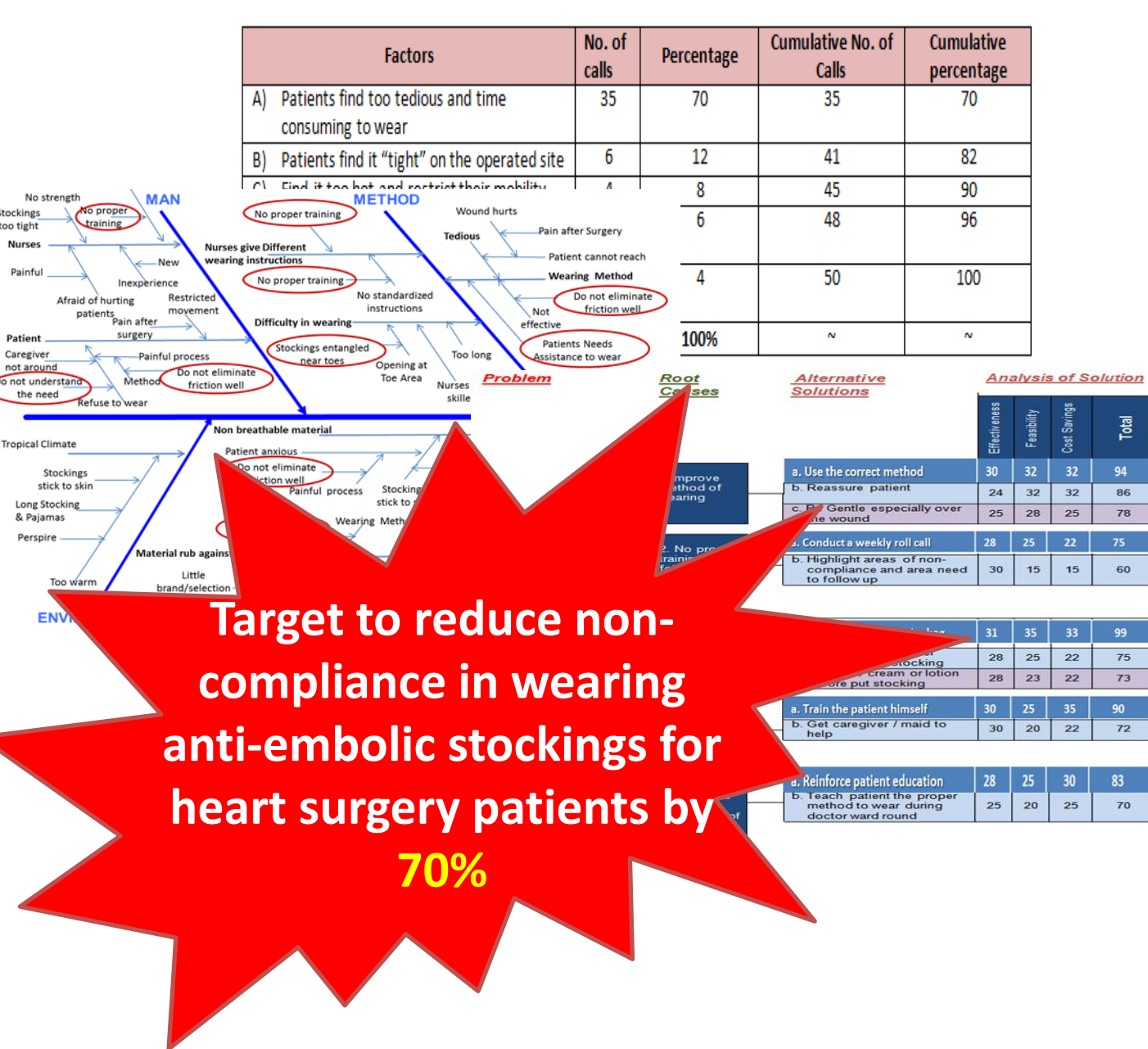
The project aims to improve post heart surgery patients compliance rate in wearing anti-embolic stockings. The team noticed that there was low compliance rate from post open heart surgery patients on wearing anti-embolic stockings which is mandatory for 4 to 6 weeks after the patients' open heart surgery. Anti-embolic stockings aim to prevent postoperative complications and helps in lower limbs blood circulation.

### Patient Safety

The anti-embolic stockings improves patients' safety by reducing the incidences of venous thromboembolism which is a major cause of death and morbidity. Venous thromboembolism will increase patients' length of hospital stay and re-admission rates, adding to their pain and healthcare costs.



## 2 METHODOLOGY



## 3 IMPLEMENTATION

We explored methods such as plastic bags, cream, lotion and talcum powder when putting on stockings for the patient.

The plastic bag was chosen based on feedback from patients and staff consensus. To ensure all staff apply the correct method, we standardize the process by conducting training and providing guidelines for all staff to follow.

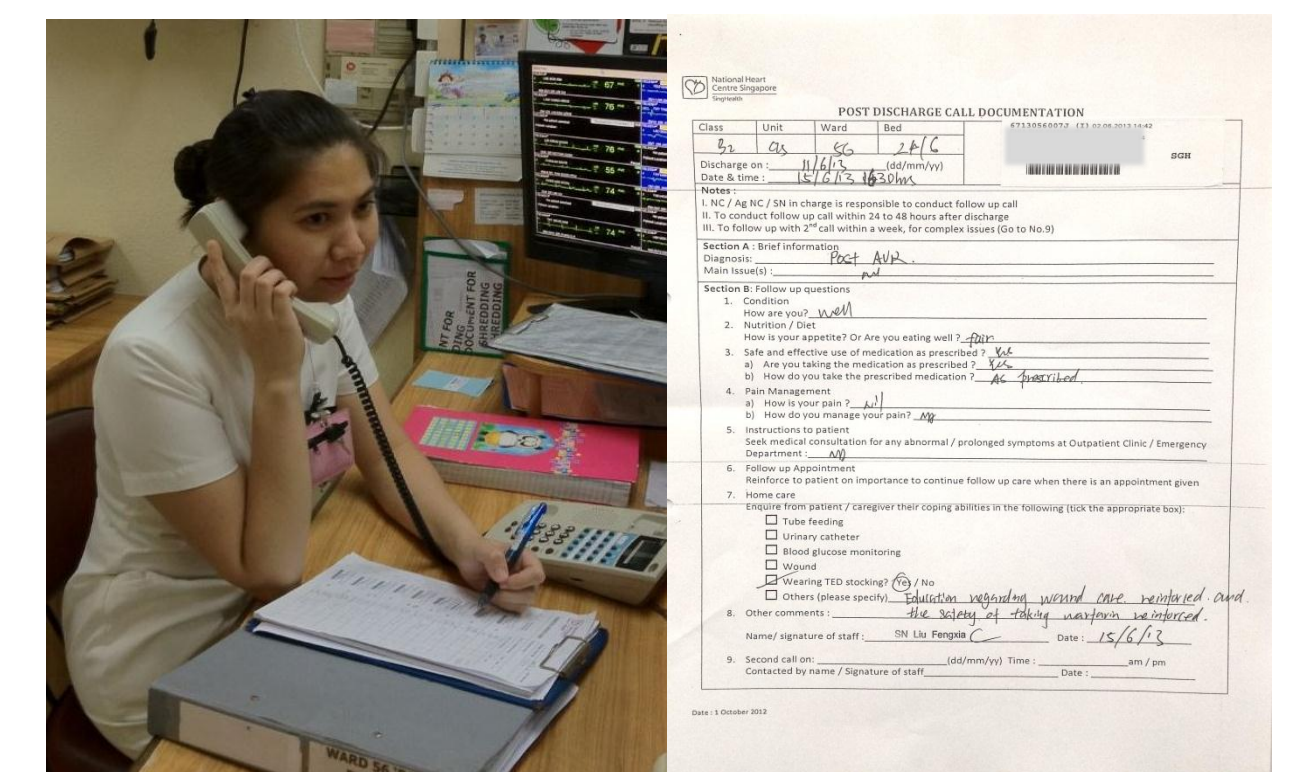


### Steps in Wearing Anti-embolic Stockings



### Post Discharge Feedback

- The reasons for not wearing anti-embolic stocking were tracked by the registered nurses using the "Post Discharge Call Documentation".
- The registered nurse will continue to call all patients within a week of their discharge.
- This new protocol was standardized and communicated to all our nurses for consistent practice.



## 4 Holistic Care Model

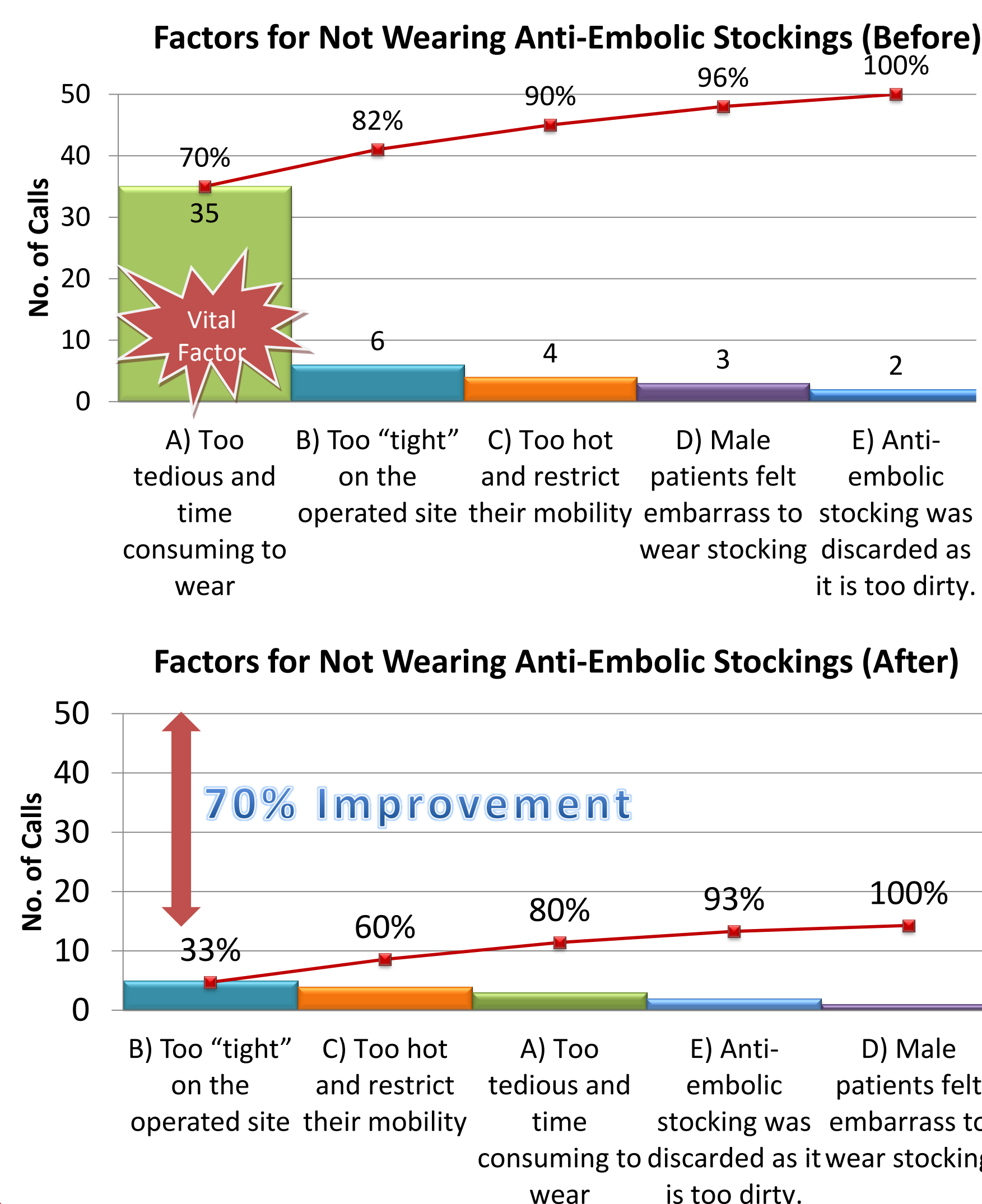


## 6 RECOGNITION



**Top 10 in the Singapore Team Excellence Competition 2013.**  
**&**  
**Achieved GOLD Award in the Team Excellence Symposium September 2012.**

## 5 RESULTS



### Tangible Results

Before implementation	
Total time taken on wearing & removal of anti-embolic stockings for 20 patients per day	780 minutes
After implementation	
Total time taken on wearing & removal of anti-embolic stockings for 20 patients per day	420 minutes
Total man hour savings per day	360 min/ day
Estimated man hour savings per annum	360 x 365 / 60 hrs = 2190 hrs
Average staff salary per hour	\$22
Estimated cost savings per annum	\$22 x 2190hrs = <b>\$48,180</b>

### Intangible Results

- ✓ Improved patients' safety
- ✓ Enhanced organization's image
- ✓ Staff morale enhanced
- ✓ Improved patient and caregiver relationship

## 7 Spin Offs

- ✓ Results of Projects have created spin-off & Continual Improvement Activities
- ✓ Increased Work Efficiency and Job Satisfaction
- ✓ Cross- Department Team work & Collaboration
- ✓ Continue new practice in NHCS new building

## Acknowledgements

1. Ho Ai Lian (Director, Nursing)
2. Kwek Koon Roan (Deputy Director, Nursing)