Project Title

Utilize 6S Concept for Access of Intermittent Pneumatic Compression Device In The Ward

Project Lead and Members

Project lead: SNM Mag Tan

Project members: NC Nellie Tan, NC Zaiton Osman, SN Cui Zhiqing, SN San San Yi

Organisation(s) Involved

Jurong Community Hospital

Healthcare Family Group Involved in this Project

Nursing

Applicable Specialty or Discipline

Orthopaedics, Surgery

Project Period

Start date: Apr 2023

Completed date: July 2023

Aims

To have sufficient calf pump in the ward base on usage. Ensure easy storage and retrieval of calf pump. To increase staff knowledge in application of calf pump.

Background

See poster appended/ below

Methods

See poster appended/ below

Results

See poster appended/ below

Lessons Learnt

To acknowledge the mistake and have the desire to make things right. Be bold to execute improvement.

Conclusion

See poster appended/ below

Project Category

Care & Process Redesign

Quality Improvement, Design Thinking, Job Effectiveness, Productivity, Time Saving

Training & Education

Education Platform, Physical Training Platform

Keywords

6S Methodology, Intermittent Pneumatic Compression Device, Calf Pump, Ward, Orthopaedics, Surgery

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UTILIZE 6S CONCEPT FOR ACCESS OF INTERMITTENT PNEUMATIC COMPRESSION DEVICE IN THE WARD

√ SAFETY
√ PRODUCTIVITY
√ COST
☐ Quality
☐ Patient EXPERIENCE

MEMBERS: SNM MAG TAN (LEAD), NC NELLIE TAN (CO-LEAD), NC ZAITON OSMAN SN CUI ZHIQING, SN SAN SAN YI

Define Problem, Set Aim

Problem/Opportunity for Improvement
Nurses in the ward have difficulties locating and assembling the intermittent pneumatic compression device (calf pump) in the ward.

This is due to :
- High usage of calf pumps for patient who are bedridden i.e. Stroke and post Orthopedic surgery.
- Insufficient calf pumps led nurses to select patient to be given calf pump.
- Lack of knowledge in application and assembling of calf pump.

Aim:
1. Have sufficient calf pump in the ward base on usage.
2. Easy storage and retrieval of calf pump.
3. Increase staff knowledge in application of calf pump.

Methodology: 6S

We utilize the 6S concept to organize and maintain the calf pumps in the ward. This is to ensure easy access of the calf pump by the nurse and by promote efficiency, safety and readiness for its use in the ward.

Analyse Problem

	Problem identified	Opportunities for review
1	Insufficient pumps due to many patients that required calf pump.	Determine the number of calf pumps REQUIRED in each
2	Calf pump application were not reviewed resulting in greater demand for calf pumps.	Doctor to review the calf pump every 2 weekly.
3	Lack of knowledge in the application and troubleshooting of calf pumps.	Provide refresher course for all staff.
4	No easy storage, sustainability of calf pumps.	Standardize storage

Implementation

1	Apr 2023	• Conducted 2 weeks data collection in all JCH wards to establish the ratio of pump to patient based on ward acuity. • Result of calf pump to patient: Ward C5 and C11 = **1:1.5**. Ward C3, C4, C6, C10 & C12 = **1:3**
2	May 2023	• Work with Vendor and BME to bring in additional pumps.
3	June 2023	• New pumps arrived. BME commissioned and deployed to wards • Conducted refresher course for all JCH staff • Standardize storage of pumps and tubing in the ward
4.	July 2023	• Conducted competency for all staff • Review calf sleeves sizes and quantity

Implementation

Storage in **each cubicle at the bed** for easy accessibility.
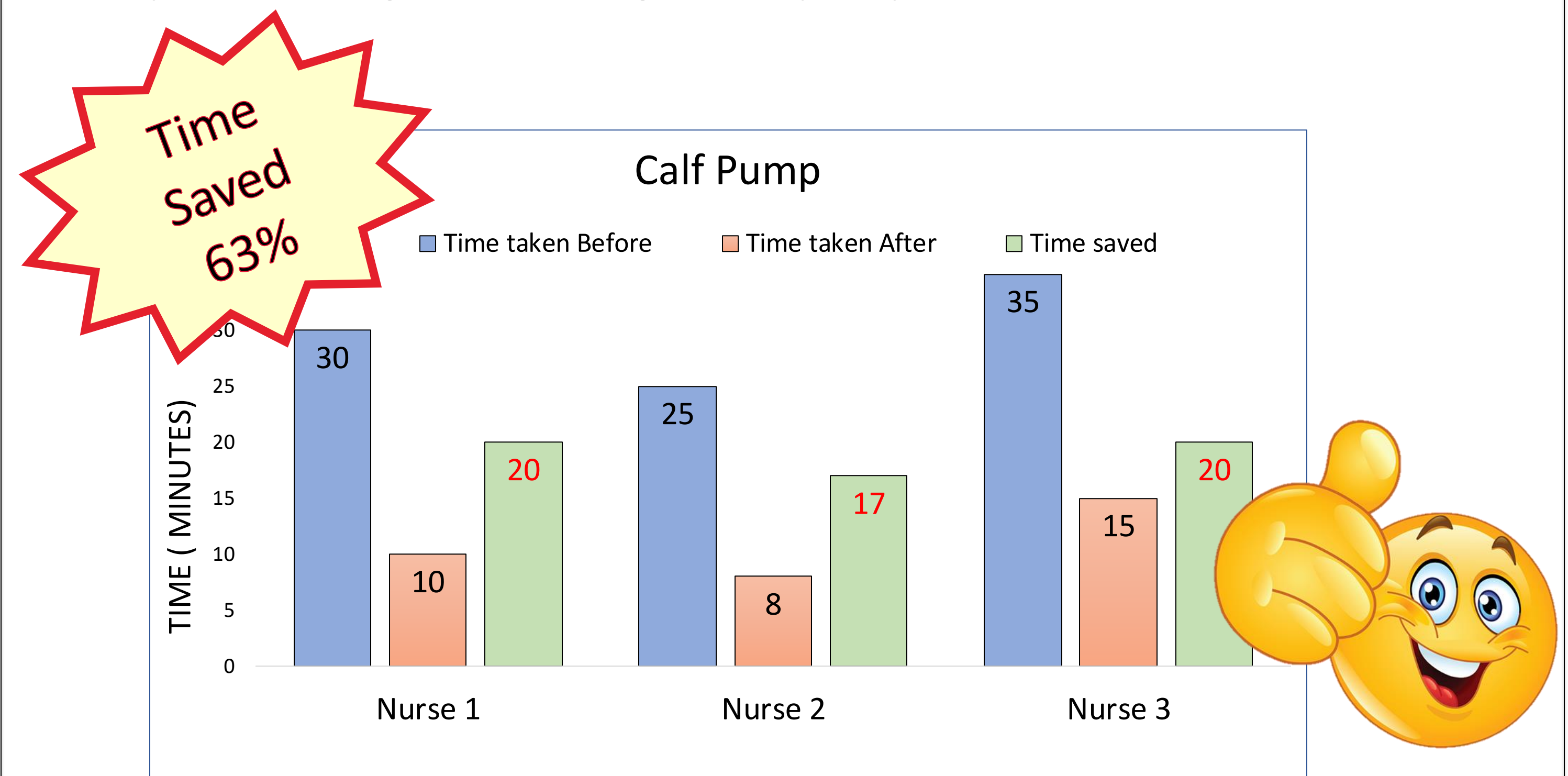- Wipe down before and after use

Storage of extra tubing in Equipment room
- Neatly cable tied

Results

1. 63% time saved to retrieve the calf pump and tubing for application
2. Easy access and readiness of equipment at bedside .
3. Easy monitoring and tracking of calf pumps in the ward.

Time Saved 63%

Calf Pump

TIME (MINUTES)

■ Time taken Before   ■ Time taken After   ■ Time saved

	Nurse 1	Nurse 2	Nurse 3
Time taken Before	30	25	35
Time taken After	10	8	15
Time saved	20	17	20

Spread Changes, Learning Points

Strategies to spread change
- Implement to all wards in JCH
- Share project at Nurse Quality Forum and Nurse Leaders Meeting
- Show case project to L3 and L2 leader in JCH and NTFGH

Key learnings
- ✓ Acknowledge the mistake
- ✓ Desire to make things right
- ✓ Be bold to execute improvement

Ng Teng Fong General Hospital

Jurong Community Hospital