

Project Title

Help in tracheostomy management- introducing RT Tracheostomy Care (Trach-care)

Project Lead and Members

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Organisation(s) Involved

Ng Teng Fong General Hospital

Healthcare Family Group Involved in this Project

Allied Health, Medical, Nursing

Applicable Specialty or Discipline

Pulmonology, Surgery

Project Period

Start date: Sep 2022

Completed date: May 2023

Aims

To reduce readmission to ICU by 50% and lessen adverse events from tracheostomised patients by May 2023 through a new workflow in which Respiratory Therapists (RT) will see all tracheostomy inpatients in NTFGH and JCH once per day. This new RT service will commence on 5th September 2022.

Background

See poster appended/ below

Methods

See poster appended/ below

Results

See poster appended/ below

Lessons Learnt

1. Respiratory therapists are empowered to participate in multidisciplinary care with nurses and the primary team.
2. Nurses are more knowledgeable about tracheostomy care
3. Continuous education of tracheostomy care for nurses or new staff

Conclusion

See poster appended/ below

Project Category

Care & Process Redesign

Quality Improvement, Workflow Redesign

Keywords

Multidisciplinary, Nurse, Respiratory Therapist, Tracheostomy, Knowledge, Education, Standardization, Learning, Emergent, Complication, Mucous Plugging, Prolonged, Ventilation, Decannulation

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HELP IN TRACHEOSTOMY MANAGEMENT- INTRODUCING RT TRACHEOSTOMY CARE (TRACH-CARE)

- X SAFETY
- X QUALITY
- ☐ PATIENT EXPERIENCE
- X PRODUCTIVITY
- ☐ COST

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Define Problem, Set Aim

Problem/Opportunity for Improvement

It was observed that tracheostomised patients tend to be slow in weaning and have a high ICU readmission rate. This is due to:

- no avenues for nurses to seek help for long-term tracheostomy patients.
- nurses are not confident due to lack of training.
- complex medical conditions require high assistance in tracheostomy care and management during their hospital stay.

Aim

To reduce readmission to ICU by 50% and lessen adverse events from tracheostomised patients by May 2023 through a new workflow in which Respiratory Therapists (RT) will see all tracheostomy inpatients in NTFGH and JCH once per day.

This new RT service will commence on 5th September 2022.

Background

The traditional workflow is that RTs see only the first seven days of tracheostomy patients discharged from the ICU. This resulted in poor tracheostomy management in the ward due to:

- minimal or poor working relationship between nurses and RTs for management in tracheostomised patient care within the inpatient ward.
- nurses were having difficulty finding the RT-on-duty mobile number in the intranet.

The consequences are:

- 1) lack of support from RTs on tracheostomy management.
- 2) an average of 11.6 adverse events of tracheostomy patients each year.

Analyse Problem

Random qualitative feedback was asked from nurses on suggestions to improve tracheostomised patient's outcomes and to find probable root causes for the problem.

Lack of support for subject matter experts is the most common issue resulting to:

1. Patient not weaned off from tracheostomy
2. adverse events, such as mucous plugging
3. unable to handle emergent tracheostomy promptly.

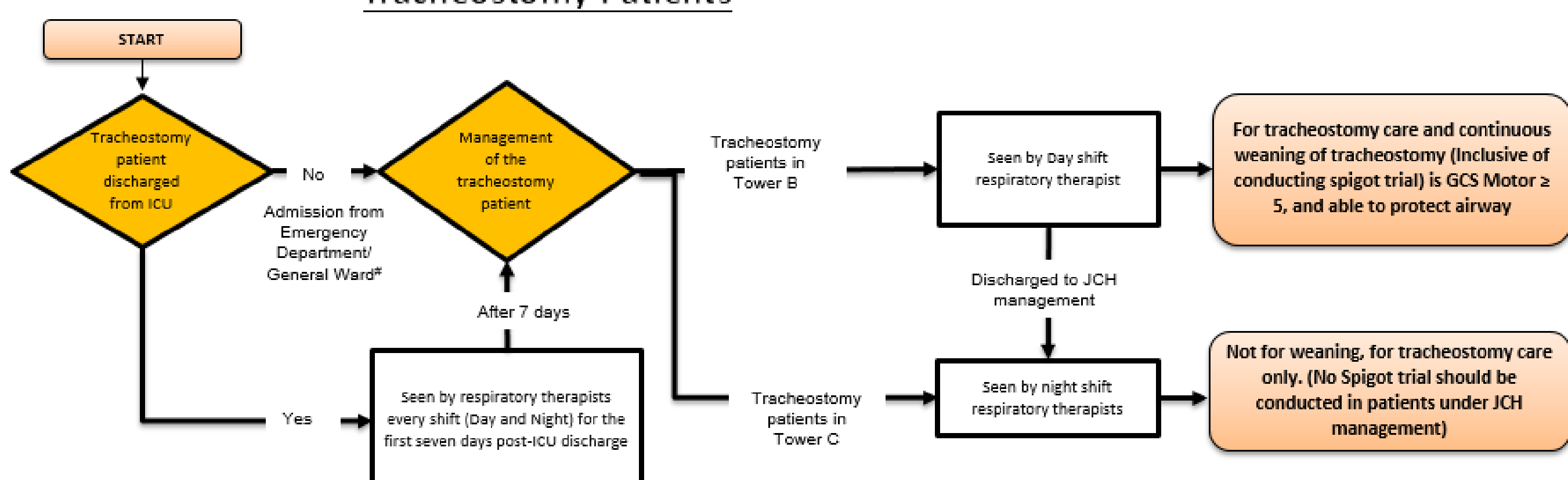
Implementation

A newly expanded workflow recommended having all tracheostomy patients reviewed by RTs once daily.

Nurses are to call ext. 64927 / 92352019 and inform the RT of the new tracheostomy patient's admission to the inpatient ward.

This will improve in-patient care and provide input from the respiratory therapist to prevent mucous plugging or tracheostomy complications.

Respiratory Therapists Workflow in Managing Tracheostomy Patients



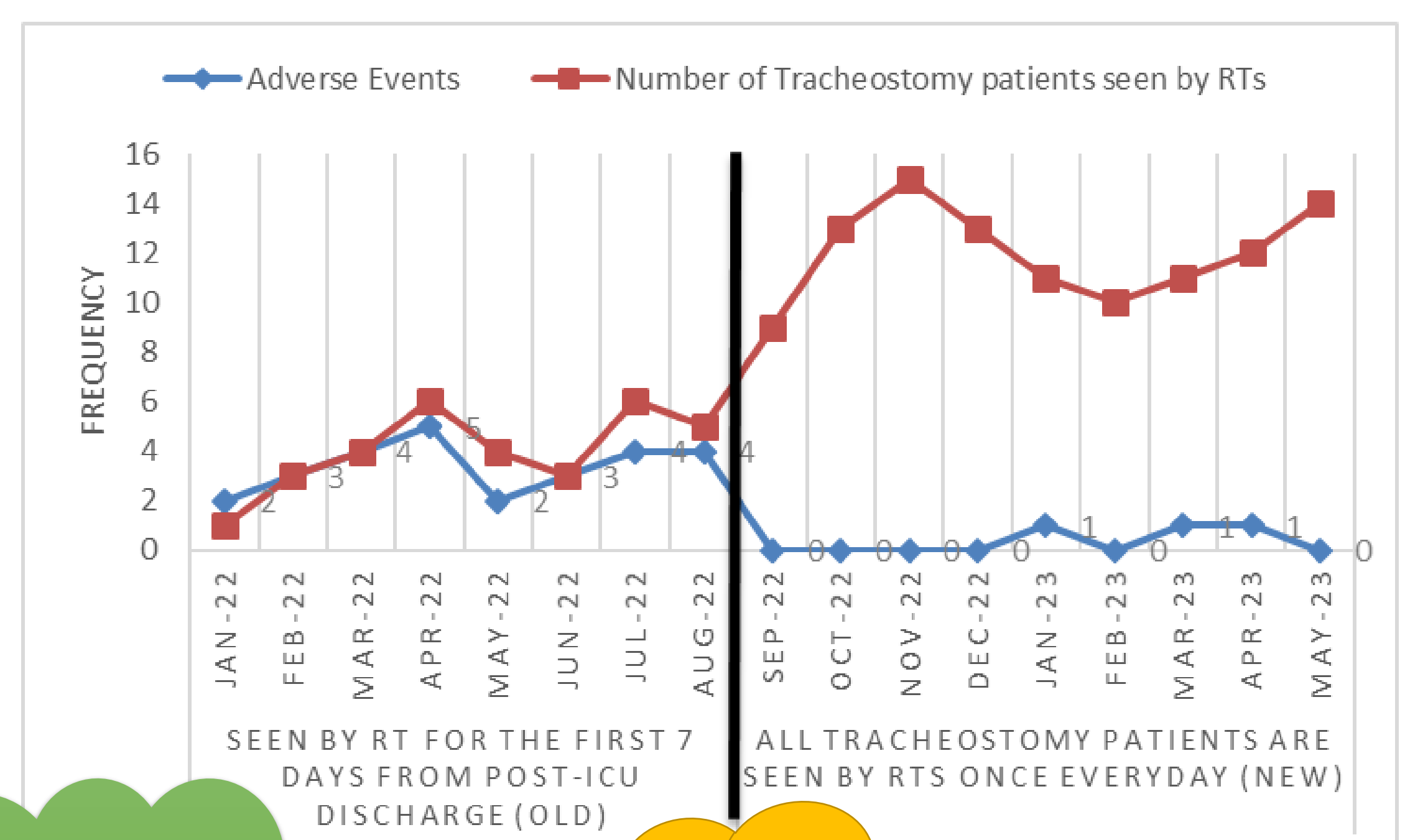
Results

Since the inception of the tracheostomy rounds by RT, Data collected from September 2022 to May 2023 shows:

- Total of 56 tracheostomised patients at NTFGH. 69.6% of the tracheostomy creation was due to prolonged ventilation.
- 18 (32.1%) patients were decannulated with a median from tracheostomy creation to decannulation was 32.2 days, a significant reduction of 55% of days save from 58.6 days.

With RT's commitment, the fastest tracheostomy creation to decannulation was nine days

- From January 2022 to August 2022, there were seven incidents of ICU readmission due to tracheostomy adverse events. This has been reduced to 1 incident that was readmitted to ICU.



Spread Changes, Learning Points

Spread Changes

- Disseminate the new service workflow to all ward nurse managers via the Nursing Training and Development and Medical Ward nursing director.
- RT work closely with nursing and medical teams in creating orders and notifications to inform RT of new tracheostomy patients admitted to ED.

What are the key learnings from this project?

- Respiratory therapists are empowered to participate in multidisciplinary care with nurses and the primary team.
- Nurses are more knowledgeable about tracheostomy care
- Continuous education of tracheostomy care for nurses or new staff