

Project Title

Frequency of Swallowing Intervention for Patients with NG tube

Project Lead and Members

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Organisation(s) Involved

Tan Tock Seng hospital

Project Period

Start date: 11-2018

Completed date: 05-2019

Aims

To improve the frequency of swallowing intervention for patients with nasogastric tube.

Background

See poster below

Methods

See poster below

Results

See poster below

Lessons Learnt

This project emphasized the importance of communication to different stakeholders in order to proceed with the interventions. In fact, multiple communications were made to ensure they understand the rationale behind the changes. Through communication, we identified certain assumptions made and ironed out the issues surfaced.

Conclusion

See poster below

Project Category

Quality Improvement, Process Improvement

Keywords

Quality Improvement, Process Improvement, Lean Methodology, Root Cause Analysis, Allied Health, Tan Tock Seng Hospital, Swallowing Intervention, Nasogastric Tube, Stroke Patients

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Tan Tock Seng
HOSPITAL
National Healthcare Group

Frequency of Swallowing Intervention for Patients with NG tube

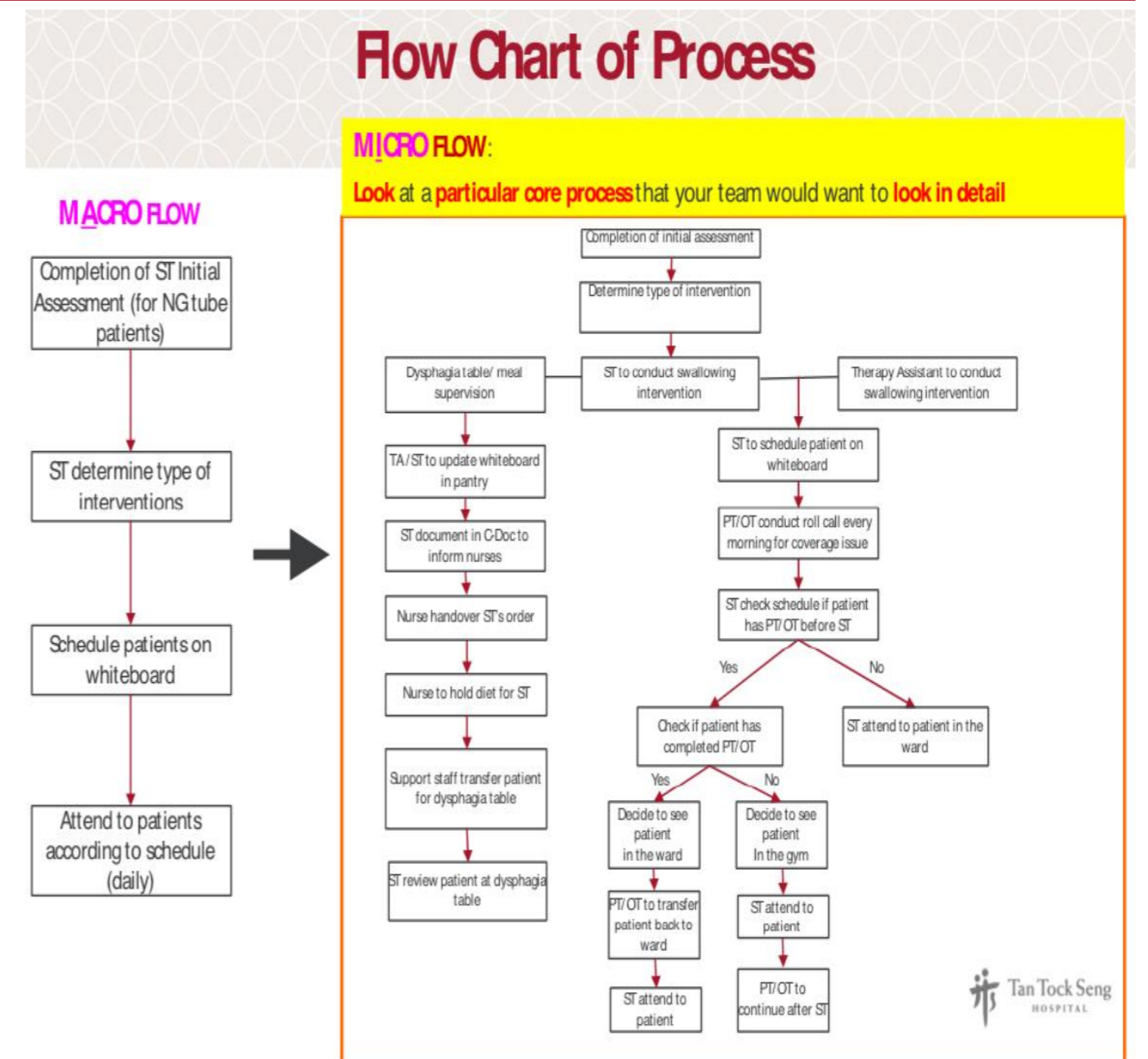
Chock See San, Ng Seok Kheng, Koh Kai Ting, Jocelyn Thio, Tay Wan Yi Lim Yoke Sim & Nooryati Binti Yahya
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Background

Based on the literature review, we understand that patients with long term nasogastric (NG) tube feeding are likely to develop complications. A more recent study by Scott R. stated that enteral feeding can also cause gastrointestinal problems, such as diarrhea, nausea and vomiting, reflux and metabolic abnormalities such as refeeding syndrome and various electrolyte disturbances (Enteral Tube Feeding in Adults, 2015). Daily intervention in stroke patients has been proven by Tomoko N et al to shortened the number of days of hospitalisation until resuming oral intake without increasing the incidence of aspiration pneumonia. We found that less than 50% of stroke patients with NG tube in Tan Tock Seng (TTSH) Rehabilitation Centre were attended for swallowing intervention every weekday. This might impact on the efficiency of NG tube weaning off. This project aims to work on improving the frequency of swallowing treatment to at least 5 days per for all inpatients with NG tube feeding in Tan Tock Seng Rehabilitation Centre.

Methodology

Stroke patients at TTSH Rehab Centre are managed by a multidisciplinary team in Stroke Team. The data was shared with the team to increase the awareness of current state and the needs to change. A project team consists of various professionals was formed to work on the project. Based on the micro flow, we conducted root cause analysis through brainstorming. The top 2 main causes identified are manpower coverage issues as well as clashes in scheduling. Coverage issue occurs in speech therapy (ST) department when less than 50% of staff is available to provide services to inpatients. Even though patients are handed over to available staff, coverage might not be possible when their hands are already full. Scheduling can even be more challenging as the ST only have limited and specific time slots. This issue is similar to other therapy groups which further affect the ST's schedule. Due to various reasons, patients might be waiting in the gym for their sessions. In order to ensure patients fully utilised their therapy time, therapy assistant will be instructed by PT to perform simple therapies which were unplanned and lengthy that potentially clashes with ST's schedule. Both manpower and scheduling issues are intractable problems for years. After convening a few meetings with the team, we decided to perform early caregiver training as our first intervention. Communication to family members on the needs of caregiver training started after initial assessments. Caregivers were encouraged to perform the simple therapies taught whenever they come to visit the patients. Our second intervention was to identify specific timings for ST to attend to all patients on NG tube feeding. These timings were chosen after considering routine workflow abode by all allied health professionals and medical team.

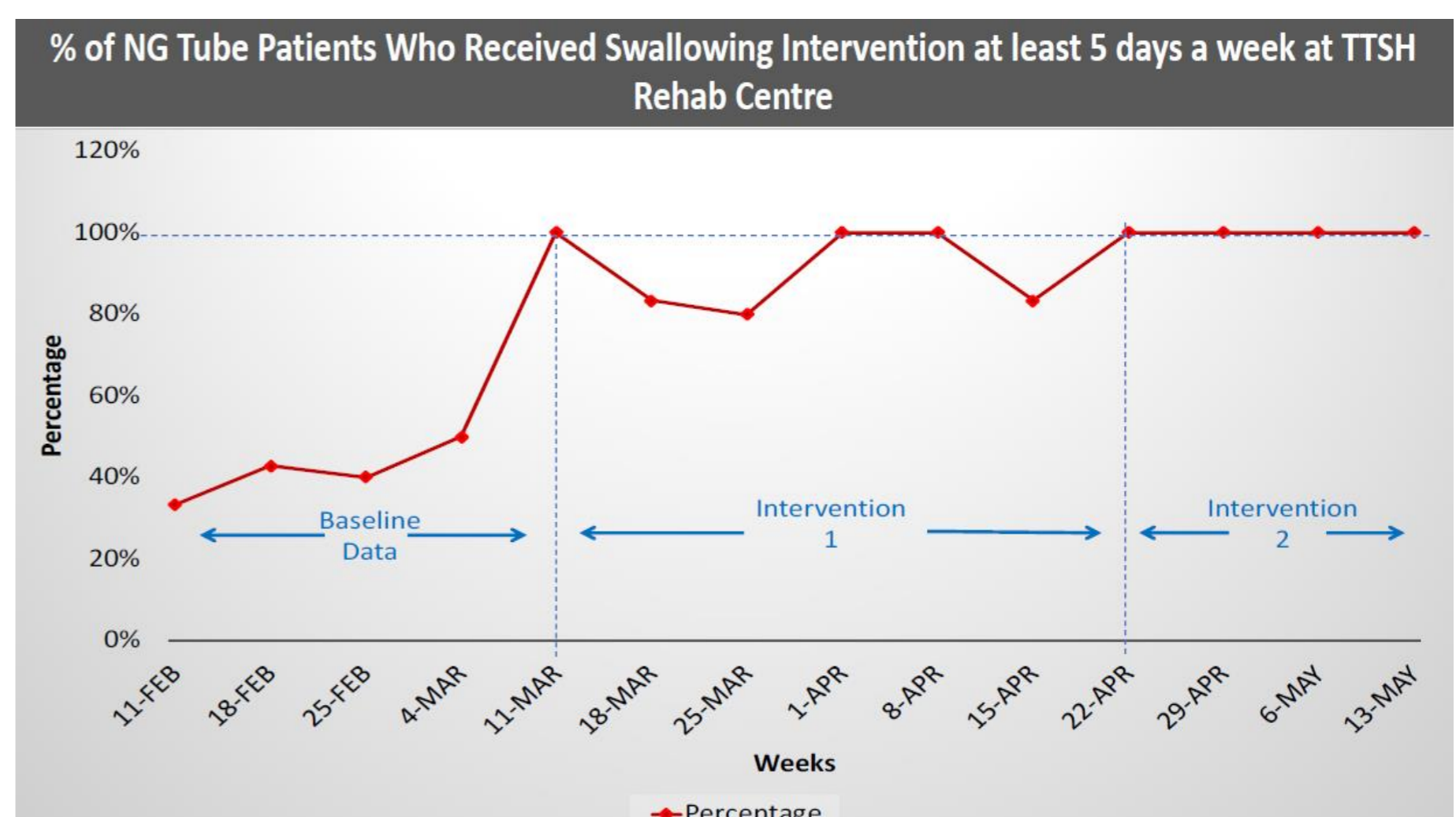


Top root causes identified after Root Cause Analysis (RCA)

A	Unplanned absenteeism on top of meetings/cause
B	Missed out ST schedule by covering PT/OT from different gym
C	Unplanned setup that run into ST Session while waiting for next session
D	Set up sessions not in schedule because unable to predict waiting time
E	Overrun setup sessions due to staff/ equipment not available

Result

The implementation of first intervention encountered obstacles as we realized not all caregivers are available to learn and provide swallowing therapy. Hence this intervention did not target all eligible patients and will not be sustainable. In our second intervention, only one specific timing was identified and speech therapists managed to attend to all patients on NG tube at this timing. This lasted for 3 weeks. However, we encountered challenges in this intervention that included patients who requested for another timing due to various reasons. Physiotherapists also feedback that they faced tight schedule for more complex patients who required special needs like tracheostomy care.



Conclusion

We reckoned that longer period of monitoring is required to understand if the interventions are truly effective and sustainable. It might be challenging for ST to attend to all patients with nasogastric tube by solely one specific timing. The intervention should allow some flexibilities to cater to different needs and changes. Ultimately, we also need to evaluate if our interventions translate to better clinical outcome.