

## **Project Title**

Improving Oral Cleanliness in Patients with Dysphagia Post Stroke

## **Project Lead and Members**

Lim Wei Jing Melinda

## **Organisation(s) Involved**

Tan Tock Seng Hospital

## **Project Period**

Start date: Feb 2017

Completed date: Sept 2017

## **Aims**

To improve oral cleanliness or maintain oral cleanliness score at '0' in patients with dysphagia at point of discharge from 69% to 100%.

Use of the Oral Health Assessment Tool, Oral cleanliness measure. 3 point scoring system, where 0 is the best score possible

## **Background**

As part of our oromotor examination during Speech Therapy assessments of swallowing, the Speech Therapist would observe then comment on the state of oral hygiene in the patient. Anecdotally, there would always be comments on how the state of hygiene and cleanliness is not desirable and does not seem to change despite our recommendations for oral toileting to be performed. Furthermore, there have been studies which demonstrate reduction in incidence of pneumonia in patients post stroke who have dysphagia management as well as intensified oral hygiene practices. Locally gathered data in TTSH, shows that more than 50% of elderly patients have suboptimal oral health, hence increasing the impetus to make a change in order to minimize further risk of developing aspiration pneumonia.

## Methods

Use of root cause analysis and ranking of top possible reasons for poor oral cleanliness in patients with dysphagia. Then implementation of intervention to target identified root causes.

## Results

Oral cleanliness score was able to be improved and/or maintained at 100% for > 6 weeks after interventions were started.

## Lessons Learnt

- The importance of using existing data collection points/measurements to reduce possibility of missed data points.
- Understanding each team members' strengths and where each should be employed to see biggest gains. E.g. having the dentist review oral cleaning technique and steps in helping nursing staff understand how best to perform oral cleaning.
- Recognizing when intervention was not working and re-think why the intervention was not working – thinking big and starting small while recognizing that it is difficult to change people's behavior over-night.

## Conclusion

- Multidisciplinary team work was required to ensure interventions can be rolled out smoothly
- Sustainability was difficult to monitor as data collection was labour intensive
- Combination of objective data and subjective reflections (from users point of view) are important considerations for potential spread and sustainability of such a project.

### **Additional Information**

- Shortlisted for NHG Quality Improvement finalist under “Developing a Flexible & Sustainable Workforce” category in August 2016
- Presented under poster presentation at SHBC 2016
- Shortlisted for Best Oral Award at Singapore Rehab Conference 2017

### **Project Category**

Quality Improvement, Process Improvement

### **Keywords**

Process Improvement, Quality Improvement, Root Cause Analysis, Preventive Care, Suboptimal Oral Health, Oral Hygiene, Oral Toileting, Reduce Aspiration Pneumonia, Oral Health Assessment Tool, Oral Cleanliness Measure, Dysphagia Post Stroke, Multidisciplinary Team, Tan Tock Seng Hospital, , Allied Health, Speech Therapy, Dentistry, Nursing

### **Name and Email of Project Contact Person(s)**

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### JOB BREAKDOWN INSTRUCTION SHEET

<b>Operation:</b>	Oral toileting with patients	<b>JBS No.:</b>
<b>Sub-operation:</b>		<b>JBS Rev:</b>
<b>Equipment; Parts; Tools; Materials</b>	12 plain oral swabs or 1 soft bristled toothbrush; ~20ml chlorhexidine solution or cool boiled water in paper cup; disposable kidney dish; torchlight; paper towels	<b>Effective:</b>
<b>Related Documents/ Forms</b>	SD-NUR-GEN-003	

#	MAJOR STEPS WHAT	KEY POINTS HOW	REASONS WHY
Carry out hand hygiene before these steps, wear mask and gloves. Approach patient and identify patient using 2 patient identifiers.			
1	Position patient upright	1. Patient looking forward	1. Good position for oral toileting
2	Dip oral swab/toothbrush into chlorhexidine solution/cool boiled water	1. Fluid to cover swab/toothbrush	1. Maximum saturation of fluid on cleaning tool
3	Squeeze excess fluid off swab OR Shake excess fluid off toothbrush	1. Excess fluid to be drained off from swab/toothbrush	1. Reduce risk of aspiration on excess fluid
4	Brush buccal surface of the 1 <sup>st</sup> quadrant	1. Circular movements covering teeth and gums	1. Clean away food debris around teeth and gum area
5	Clean oral swab/brush with paper towels OR Discard if oral swab cannot be cleaned	1. Remove food debris or secretions from swab	1. Prevent re-introducing debris/secretions into mouth
6	Repeat steps 2 to 4 with the buccal surfaces of 2 <sup>nd</sup> , 3 <sup>rd</sup> and 4 <sup>th</sup> quadrants	As above	1. Complete oral toileting
7	Repeat steps 2 to 4 on the lingual surface of the 4 quadrants	As above	1. Complete oral toileting

