

**Project Title**

Safe and Fast Thickened Fluids Preparation for Dysphagia Residents

**Project Lead and Members**

Clarice Chia, Tania Teo, Ms Michelle Lew, Ms Margaret Goh

**Organisation(s) Involved**

Kwong Wai Shiu Hospital

**Healthcare Family Group(s) Involved in this Project**

Allied Health, Nursing

**Applicable Specialty or Discipline**

Speech Therapy

**Project Period**

Start date: Aug 2021

Completed date: Dec 2021

**Aim(s)**

- Nursing staff to achieve 100% accuracy of thickened fluids preparation using Resource clear thicker to residents with dysphagia in Ward 8 from August to Dec 2021.
- Shorten preparation time of thickened fluids by Nurses/ Healthcare Attendants / Therapists by 50% from 3minutes to 1.5minutes in Ward 8 from Aug to Dec 2021.

**Background**

See poster appended/ below

**Methods**

See poster appended/ below

## **Results**

See poster appended/ below

## **Lessons Learnt**

See poster appended/ below

## **Conclusion**

See poster appended/ below

## **Additional Information**

This project was featured at the Central Health Action & Learning Kampung (CHALK) Poster Showcase 2022.

## **Project Category**

Care Continuum

Rehabilitative Care, Intermediate and Long Term Care & Community Care, Nursing Home Care

Care & Process Redesign

Productivity, Cost Saving, Time Saving, Quality Improvement, Clinical Practice Improvement

## **Keywords**

Rehabilitative Care, Nursing Home, dysphagia, Fluid Preparation

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# Safe and Fast Thickened Fluids Preparation for Dysphagia Residents

## Team Members

Clarice Chia Speech Therapist | Tania Teo Speech Therapist | Ms Michelle Lew Director, AS |  
Ms Margaret Goh Principal PT / Snr Mgr



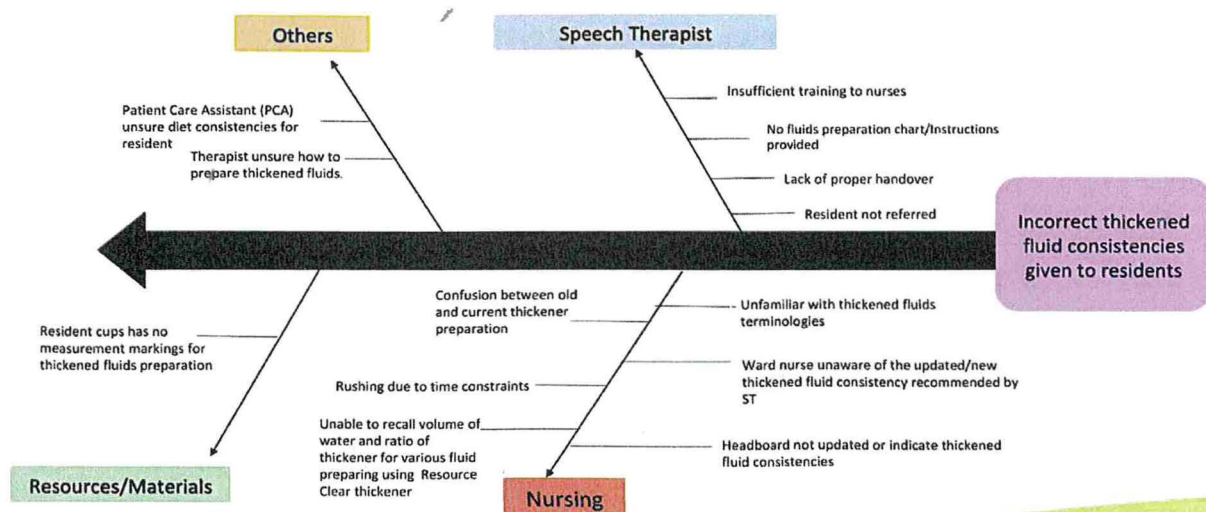
## Background

- Dysphagia is a common consequence in nursing home residents with neurological conditions.
- Thickening agents are often employed in nursing facilities to reduce aspiration risks.
- Errors and variations in fluid consistency related to hand thickening are common in Kwong Wai Shiu Hospital @ Serangoon (KWSH).

## Challenges

Based on Fishbone diagram, a few challenges were identified during thickened fluids preparation in KWSH.

- Recipe errors based on inaccurate or 'estimated' measurements.
- Residents' cups do not have measurement markings.
- Long time taken to prepare the correct consistency accurately.
- Fluid consistencies not indicated or updated timely.



Fishbone Diagram - cause of incorrect fluid consistencies given to residents

## **Interventions**

### ***Objectives/Aims Of Project***

1. Nursing staff to achieve 100% accuracy of thickened fluids preparation using Resource clear thickener to residents with dysphagia in Ward 8 from August to Dec 2021.
2. Shorten preparation time of thickened fluids by Nurses / Patient Care Assistants / Therapists by 50% from 3 minutes to 1.5 minutes in Ward 8 from Aug to Dec 2021.

### ***Approach/Method***

#### ***Plan:***

- Speech Therapists (STs) brainstormed and shortlisted the causes using the fishbone diagram.
- STs designed the (i) Thickened Fluids Preparation Chart based on Resource Clear thickener, and (ii) labelled resident cups with measurement markings.
- Identified ward and residents with dysphagia using Resource Clear thickener.

#### ***Do:***

- Implementation project in Ward 8
- Each dysphagic resident was given a drinking cup with measuring labels and thickened fluids preparation chart
- ST used IDDSI flow test to measure accuracy of thickened drinks prepared by nurses. Data collected.
- Self-Report Satisfaction Survey given to nurse / Patient Care Assistants (PCA)

#### ***Check:***

- Improvements checks and updates to resources were done.
- Other stakeholders identified.

#### ***Act:***

- PCAs, PTs and OTs were also briefed on the project.
- ST ensured each dysphagic resident still had their (i) updated individualised preparation charts pasted below the headboard and (ii) cup with measuring labels, during the project.



## **Outcomes**

1. Based on IDDSI Flow test, staff/PCA achieved 100% accuracy of thickened fluids preparation using Resource Clear thickener to residents with dysphagia in KWSH.
2. Duration of preparation reduced to about 1 minute. Reduced by 67%, exceeded the initial aim of 50% reduction in preparation duration.

## **Conclusion/Solution**

Implementation of the fluid preparation chart and cup with measuring units, addressed the aims of project by:

- Standardising and improving the quality of thickened fluids preparation to 100% accuracy.
- Shorten preparation time to 1 minute. With a total of 61 dysphagic residents in KWSH, this could potentially save 732 minutes (~12.2 hours) per day, for other direct nursing care.

Additional benefits include:

- Reduced wastage of approximately 7 cans of thickener per day, This potentially saves about \$84 per day (1 can of thickener cost \$12x7 = \$84), and annual savings of \$30,660.
- Thickened Fluid Preparation chart has been used by Staff nurses as a visual teaching aid to teach new foreign nurses.