

### **Project Title**

Re-designing Speech Therapy service delivery model to Intermediate-Long Term Care (ITLC) facilities in Singapore

### **Project Lead and Members**

Project Lead: Wendy Sim

Project Members: Poh Ailin, Gladys Tan Li Yue, Leow Li Pyn, Abdul Rashid Jailani

### **Organisation(s) Involved**

Ng Teng Fong General Hospital, Jurong Community Hospital

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

Allied Health

### **Applicable Specialty or Discipline**

Speech Therapy, Nursing

### **Aim(s)**

To re-design the model of service delivery of Speech Therapy (ST) by harnessing readily available technology through the development and implementation of the nation's first ST tele-training and tele-consultation services to Nursing Homes

### **Background**

See poster appended/ below

### **Methods**

See poster appended/ below

### **Results**

See poster appended/ below

## Lessons Learnt

- Changes to mode of service delivery required change in mindset, full buy-in, continued collaboration and commitment from stakeholders. Though the successful implementation of this project was driven by need for service to NH residents, it demonstrates the importance of being able to adapt and innovate current care models.
- Support from stakeholders and benefits of tele-consultation are important to sustain adoption of tele-consultation as mode of ST service delivery
- The main anticipated challenge is encouraging NHs to continue with tele-consultation as the main mode of ST service given that healthcare workers' movement to NH are allowed currently. Secondly, NHs need to continue to allocate time for NH staff to conduct the tele-consultations.

## Conclusion

Main message: Openness to innovate and implement novel way of service delivery

Impact: Pioneer for ST tele-consultation for NH in Singapore. Successful implementation of a service delivery that is impervious to any restrictions in manpower movement boosts confidence in expanding ST tele-consultation as possible mode of service delivery to NH nationwide as well as to expand this mode of service delivery to other settings.

## Additional Information

Tele-consultation has remained the main mode of NTFGH ST service delivery to NH for 2 years, since July 2020. As of June 2022, tele-consultation remains the main mode of NTFGH ST service delivery to 7 NHs. One NH had a change in management in 2021 and opted to send residents to hospital for ST appointments.

Currently, 7 out of 9 NH serviced by NTFGH ST have adopted tele-consultation. The other 2 NH opted to send residents for face-to-face sessions at NTFGH and declined tele-consultation citing lack of manpower.

**Project Category**

Care & Process Redesign

Quality Improvement, Access to Care

**Keywords**

Tele-Training, Tele-Consultations

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# Re-designing Speech Therapy service delivery model to Intermediate-Long Term Care (ITLC) facilities in Singapore

## Care Redesign & Adoption

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### 1. Introduction

During COVID-19 outbreak and DORSCON orange, movement of healthcare workers into Nursing Homes (NH) were limited from 27 February 2020<sup>1</sup> and completely ceased on 2 April 2020<sup>2</sup>. During this period, Ng Teng Fong General Hospital (NTFGH) Speech Therapists (ST) were providing care to 10 NH across the island. As NH residents continued to require ST services, NTFGH ST re-designed the model of service delivery by harnessing readily available technology by developing and implementing the nation's first ST tele-training and tele-consultation services to NHs.

### 2. Problem

Cessation of ST services for more than a month meant that residents who were able to resume oral intake were denied an assessment, while residents who may have benefitted from a review of their dysphagia severity were left unseen. Some residents would have been shuttled back to acute hospitals for a review, possibly unnecessarily utilising manpower and other healthcare resources. Residents with dysphagia who require closer follow up would be at higher risk of developing complications such as aspiration pneumonia.

ST services were important as dysphagia can result in aspiration pneumonia<sup>3</sup> and dehydration and malnutrition<sup>4</sup>.

### 3. Intervention

As the need for NH residents to be consulted by STs grew increasingly apparent, NTFGH ST, together with the in-charges of the NHs developed and implemented the nation's first ST tele-consultation services for NH.

Sharma et al. (2011) found high levels of agreement between online and face-to-face decisions across all aspects of the clinical swallow assessment, clinical decisions and recommendations<sup>5</sup>. Further research into other countries' ST tele-consultation in dysphagia management were done in order to develop a tele-training and tele-consultation service that will work in our clinical and local context.<sup>6,7</sup>

#### First phase: Tele-training

##### Details:

- 2 hour tele-training
- Average 7 nurses per session
- Total (June 2020-June 2022):
  - 17 sessions
  - 95 nurses
  - 8 nursing homes

##### Competency check:

1. Theory Test
  - 66% passed on first try
  - 100% passed on second try
2. Practical Test
  - 100% passed

Feedback from nurse on tele-training: increased confidence and knowledge in conducting tele-consultation by 20.4%.

#### Second phase: Tele-consultation

##### Details:

- Teleconsultation with nursing home resident
- Total (July 2020-June 2022):
  - 321 resident

##### Competency check:

- Nurse audited on:
1. Materials preparation
  2. Tele-consultation setup
  3. Dysphagia observations

##### Feedback from nurse on tele-consultations:

- Technical issues (resolved with troubleshooting)
- Learning from tele-training reinforced

### 4. Effects

NH residents continued to receive timely ST services despite COVID-19 healthcare workers' movement restrictions. This potentially reduced incidences of aspiration pneumonia, dehydration and malnutrition and eventual hospital admissions.

The effectiveness of tele-consultations allowed tele-consultations to remain as the main mode of NTFGH ST service to NH despite lowered DORSCON level to yellow on 26 April 2022 where most healthcare workers' movements to NH had lifted.

Continuing tele-consultation as main mode of service will help to ensure ongoing ST services to NH residents even if there are sudden restrictions to NH imposed in the future.

### 5. Difficulties Encountered

Increased time was required for administrative tasks such as scheduling individual sessions, setting up and sending Zoom links, and obtaining permissions for off-site documentation. Time taken was reduced as NH staff became increasingly familiar with work processes and implementing set schedules.

Last minute cancellations by NH related to lack of manpower were encountered. This was reduced by providing timely reminders to NH and also ST's direct phone number to contact for any last minute changes.

Technical problems were encountered e.g. poor WiFi connection at NH resulted in inferior video and audio quality. This was reduced by locating a room with stronger WiFi connectivity.

### 6. Continued Adoption

Since July 2020, tele-consultation has remained the main mode of NTFGH ST service delivery to NH for 2 years.

From July 2020 to June 2022, 8 NHs completed tele-training sessions. The first round of tele-training was conducted from June 2020 with 7 tele-training sessions to 6 NHs. In 2021, with a new NH contract, 2 tele-training sessions were conducted. In 2022, a further round of 8 training sessions was completed from January to June 2022, in which 4 NHs requested to increase the number of tele-training sessions.

As of June 2022, 321 tele-consultation sessions to NH residents across 8 NHs have been conducted. Currently, tele-consultation remains the main mode of NTFGH ST service delivery to 7 out of 10 NHs. 3 NHs opted to send residents for face-to-face sessions at NTFGH and declined tele-consultation due to lack of manpower or change in management.

As the pioneer for ST tele-consultation for NH in Singapore, successful implementation of this service delivery that is impervious to any restrictions in manpower movement boosts confidence in expanding ST tele-consultation as possible mode of service delivery to NH nationwide. Furthermore, expansion of tele-consultation to other settings can be considered.

### 7. Lessons Learnt

Changes to mode of service delivery required change in mindset, full buy-in, continued collaboration and commitment from stakeholders. Though the successful implementation of this project was driven by need for service to NH residents, it demonstrates the importance of being able to adapt and innovate current care models.

Support from stakeholders and benefits of tele-consultation are important to sustain adoption of tele-consultation as mode of ST service delivery.

The main anticipated challenge is encouraging NHs to continue with tele-consultation as the main mode of ST service given that healthcare workers' movement to NH are allowed currently. Secondly, NHs need to continue to allocate time for staff to conduct tele-consultations.