

# Improving oral fluid intake of elderly patients in YCH

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## Aim

To improve oral fluid intake of elderly patients in geriatric subacute ward in Yishun Community Hospital.

## Background

The prevalence of dehydration among hospitalized elderly patients ranges from 37-45% in acute hospitals and 20% in long-term care facilities. Dehydration is linked to various conditions, including constipation, pressure sores, infections, delirium, and behavioural issues. A preliminary survey conducted in a YCH subacute ward revealed that the average oral fluid intake was 1035ml per patient per day, with only 13% of patients reaching a fluid intake of 1500ml/day or more.

## Team Members

Name	Designation	Department
Dr Thet Htet Zaw	Senior Staff Physician	Medical Services
Cara Lee Ruo Yu	Senior Occupational Therapist	Rehabilitation Service
Tan Yi Xue	Assistant Nurse Clinician	Ward D48
Shobana Chandran	Senior Staff Nurse	Ward D48
Edelweiss Barquero Albarracin	Senior Care Support Associate	Ward D48
Alvin Quek Yijie	Executive	Admin Office
Chan Sue Mei	Principal Dietitian	Nutrition & Dietetics

## Interventions / Implementation

Not scheduled fluid	Scheduled fluid	Scheduled fluid
8 am: Breakfast Coffee/ tea/milo/milk- 200ml	8 am: Breakfast Coffee/ tea/milo/milk- 200ml	8 am: Breakfast Coffee/ tea/milo/milk- 200ml
9 am: Medication Round Take water from water jug	9 am: Medication Round 10 am: Supplements* or water (no fixed volume)	9-10 am: schedule fluid 200ml
12 pm: Lunch Soup 200ml	12 pm: Lunch Soup 200ml	12 pm: Lunch Soup 200ml
2 pm: Afternoon tea Coffee/ tea/milo/milk- 200ml	2 pm: Afternoon tea Coffee/ tea/milo/milk- 200ml	2 pm: Afternoon tea Coffee/ tea/milo/milk- 200ml
5:30 pm: Dinner Soup 200ml	5:30 pm: Dinner Soup 200ml	4 pm: schedule fluid 200ml
7 pm: Medication Round	7 pm: Medication Round	5:30 pm: Dinner Soup 200ml
8 pm: Supper Coffee/ tea/milo/milk- 200ml	8 pm: Supper Coffee/ tea/milo/milk- 200ml	7 pm: schedule fluid 100ml
Seven drinking rounds 1000ml+	Seven drinking rounds 1000ml+	8 pm: Supper Coffee/ tea/milo/milk- 200ml
		Eight drinking rounds 1500ml

### 1 PDSA 1.0

Old fluid was only scheduled 1000ml per day. To address this, new fluid schedule was revised to the target 1500ml per day where timing was standardized.

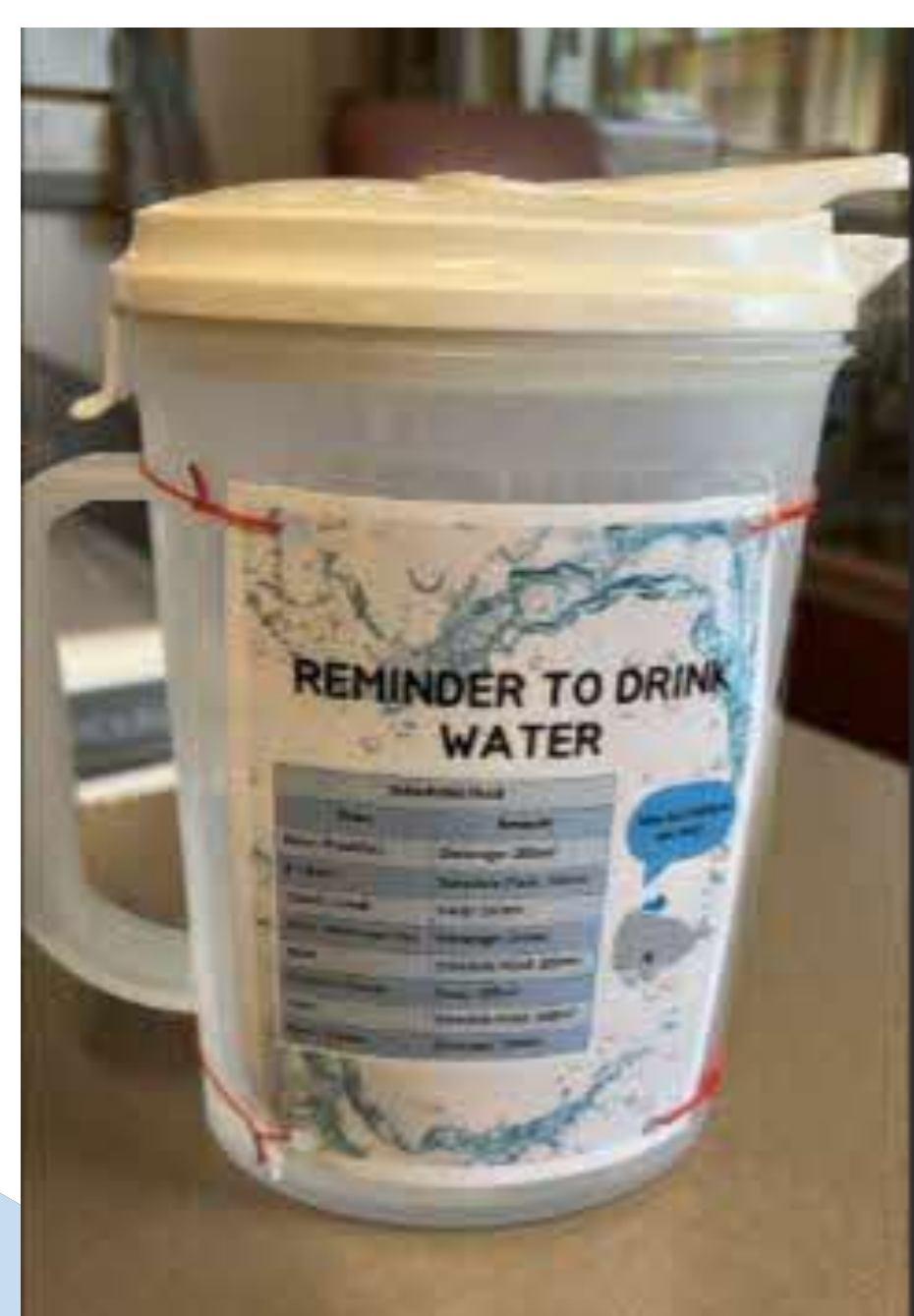
### 2 PDSA 1.0

Poster was developed and placed in the ward to visually alert the multidisciplinary team to remind patients to drink more water.



### 3 PDSA 2.0

To further engage the patients and family members/caregivers, mini poster with the fluid schedule was tied to the water jug provided to all patients.



## Onward 2026

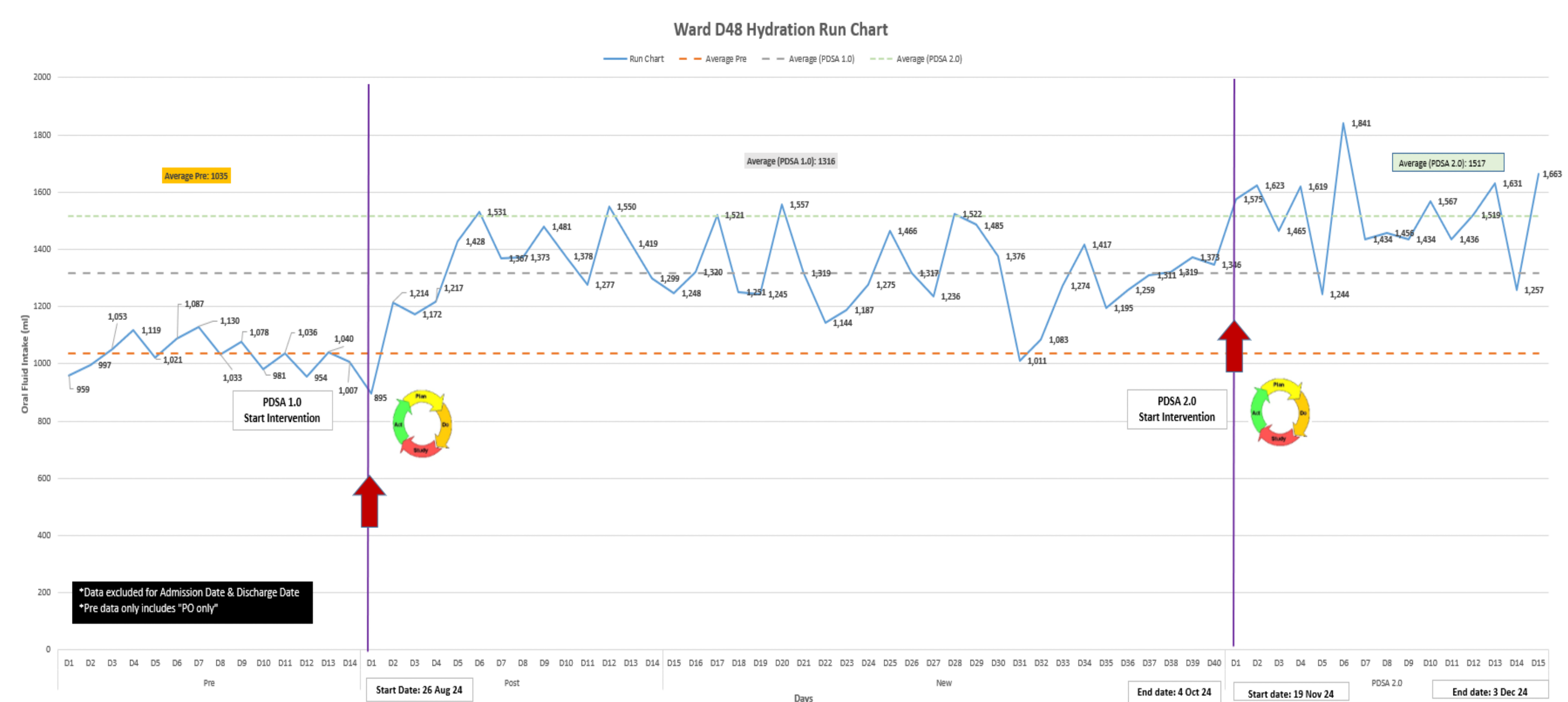
Strategic priority, SP 4 – Manage and prevent frailty.

- Physical and cognitive frailty increase the risk of dehydration, which can lead to further complications.
- The project created strategies to promote oral fluid intake among frail patients during their hospital stay.
- These strategies can also be shared with patients and caregivers to ensure adequate fluid consumption post-discharge.

Foundation - Quality and Patient Safety.

- Inconsistent fluid scheduling and insufficient fluid amounts may have led to inadequate patient intake in the ward.
- Standardizing the fluid schedule with the appropriate daily fluid intake helps align the expectations of both the team and patients regarding necessary fluid consumption.
- Additionally, involving the multidisciplinary team, including doctors, nurses, dietitians, and therapists, in revising the fluid schedule raises awareness about the importance of proper hydration.

## Results & Outcomes



Pre: A total of 100 patients in ward D48 were analysed over a three-month period (January to March 2024), with an average fluid intake of 1035 ml per day. Only 13% of patients reached the target of 1500 ml or more.

Post: The first PDSA cycle was implemented. A total of 43 patients in ward D48 were analysed during the period from 26 Aug 2024 to 4 Oct 2024, and their average fluid intake increased to 1316 ml per day.

Post: In the second PDSA cycle, data on fluid intake from 15 patients were collected in the two weeks post-intervention (Nov to Dec 2024), averaging 1517 ml of fluid intake per patient per day.

## Conclusion

The initiative to improve oral fluid intake for elderly patients at YCH is in line with the Onwards 2026 Strategic Plan – Manage & Prevent Frailty (Priority 4).

Overall, patients have benefitted from the interventions implemented as their total fluid intake increased from 1035ml/day to 1517ml/day. Given the risk of dehydration in elderly patients, it is crucial to implement strategies that ensure adequate hydration. This project has shown that standardized fluid schedules and reminders effectively improve patients' oral fluid intake in the community hospital.