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Optimizing The Efficiency and Accuracy of Afternoon Tea Serving at Ang Mo Kio - Thye Hua Kwan Hospital

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INTRODUCTION

Afternoon tea is part of the inpatient meal service provided in AMK-THKH. There are a total of 12 types of snacks made available for our inpatients tailored to their diet texture and therapeutic needs.

Afternoon tea menu is tagged into our electronic Meal Ordering System (eMOS) with serving list generated through the built-in filtering system according to prescribed texture and therapeutic diet. The nursing staff, mainly healthcare assistant (HCA) and health attendant (HA) serve afternoon tea by referring to the eMOS serving list generated via electronic tablet (E-tablet) daily.

However, inconsistent knowledge among staff and suboptimal compliance to work processes made even more challenging by staff attrition may cause wrong snacks to be served to patients, thereby potentially compromising patient safety.

This project aims to optimize afternoon tea serving efficiency by enhancing at least 50% improvement in serving accuracy within 6 months.

METHODOLOGY

In July 2022, a baseline audit of work process compliance and serving accuracy was conducted across all inpatient wards which involved 258 patients. The overall serving accuracy was noted to be 56% with work process compliance of 20%. The fishbone diagram was used to determine the root causes of poor serving accuracy. (Figure 1)

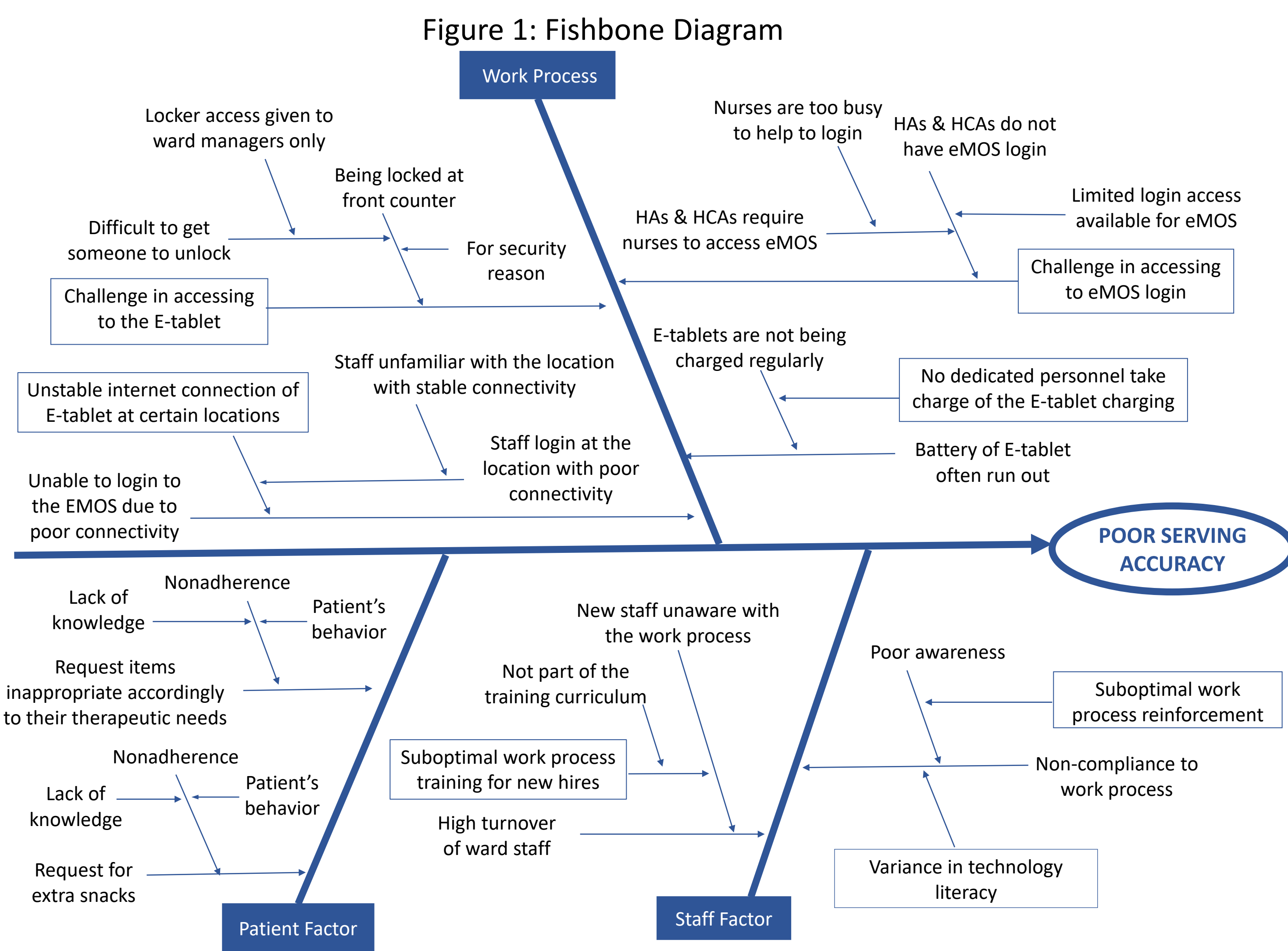


Table 1: Major root causes identified from root cause analysis and implemented interventions

Root Causes	Interventions
1. Variance in technology literacy among staff	• Availability of alternate work process using hardcopy eMOS serving list
2. Suboptimal work process reinforcement	• Work process reinforcement with regular audits
3. Suboptimal work process training for new hires	• Development of training materials as part of the nursing staff training curriculum
4. Challenges in accessing to E-tablet and eMOS login	Assignment of dedicated staff to help with these tasks
5. No dedicated personnel take charge of E-tablet charging	
6. Unstable internet connection of the E-tablet at certain locations	Logging in to E-tablet at locations with stable connection

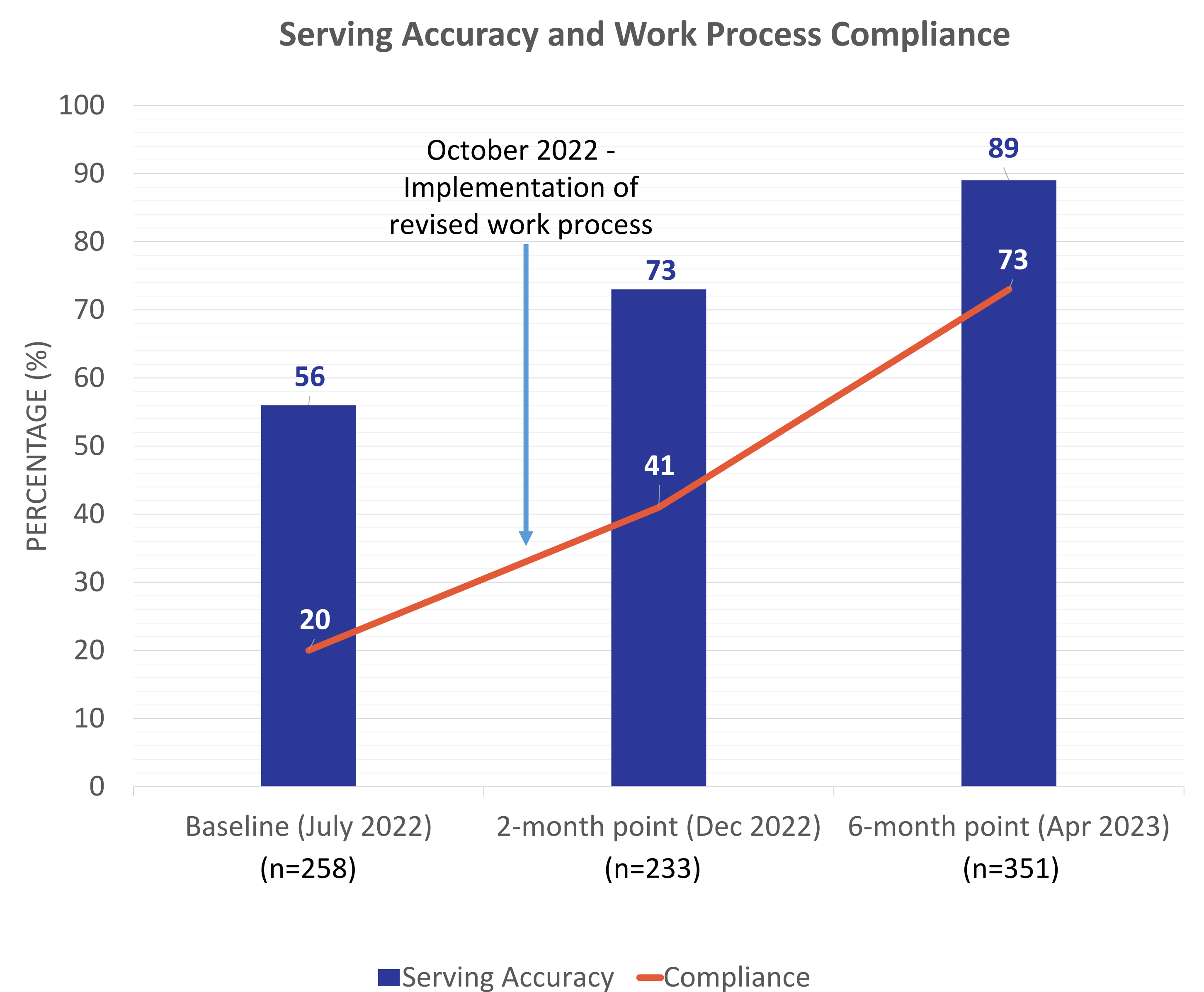
Discussion with nursing managers from respective wards was conducted to brainstorm interventions that are appropriate to the ward's needs. (Table 1)

The availability of the alternate work process using hardcopy eMOS serving list was made available in October 2022. Nursing training and work process reinforcement were also conducted on all wards with training materials developed as part of the nursing staff training curriculum. Subsequent audits were conducted at 2-month and 6-month point post intervention in December 2022 and April 2023 respectively.

RESULTS

The afternoon tea serving accuracy was noted to have improved from 56% to 73% during the 2-month follow up audit, and further improved to 89% on the subsequent 6-month audit. 2 months after implementation of the revised work process, work process compliance improved from 20% to 41%, and further improved to 73% in the 6-month follow-up audit.

Figure 2: The 6 Months Follow Up Audit on Serving Accuracy and Work Process Compliance



After 6 months of intervention,

- **Afternoon tea serving accuracy improved by 59% from baseline.**
- **Work process compliance improved two-fold.**

Improved serving accuracy lead to increased work efficiency and consequently better patient experience.

CONCLUSION

The provision of appropriate afternoon tea according to patients' prescribed diet texture and therapeutic diet adds to patient safety. Nursing staff serve all meals including afternoon tea to patients, however high workload and attrition rate can pose a challenge in consistently maintaining optimal knowledge and awareness in new staff which may affect the accuracy in the serving task. Work efficiency is significantly reduced when errors occur, as extra time will be needed to account for appropriate afternoon tea replacements. This delays the entire serving process and the patient experience is also negatively impacted. To improve this, rework was required. Work process standardization was adapted to meet the ward's needs. The processes of serving afternoon tea within the hospital was standardized whilst accounting for variance in staffs' tech-literacy, by the use of either a hardcopy eMOS serving list or electronic eMOS serving list via E-tablet. The system has been adopted as part of a standardized hospital work process for afternoon tea serving and is monitored bi-monthly.

To ensure sustainability, the work process must continue to be augmented with regular training and reinforcement. By adhering to standardized ward processes, the accuracy and efficiency of afternoon tea service is improved, which adds value to the patient experience.

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