

Background

Feeding is a fundamental life skill that plays a significant role in a person’s culture, identity, and overall well-being (Calvalcanti et al., 2020). Individuals with acute or chronic medical conditions may struggle with self-feeding, which can result in reduced oral intake, increased aspiration risk, and decreased self-efficacy (Shune, 2020). Occupational and speech therapists can address these deficits through assessment and intervention, which can include the use of adaptive equipment, positioning, and dietary modifications (Boop et al., 2017; Chen et al., 2022; Rogus-Pulia & Hind, 2015; Paul & D’Amico, 2013). Currently, standardized utensils are provided on meal trays regardless of a patient’s functional abilities, highlighting a need for more individualized solutions to improve independence with self-feeding. This quality improvement initiative seeks to promote self-feeding and patient independence during mealtimes with adaptive equipment.

Methods

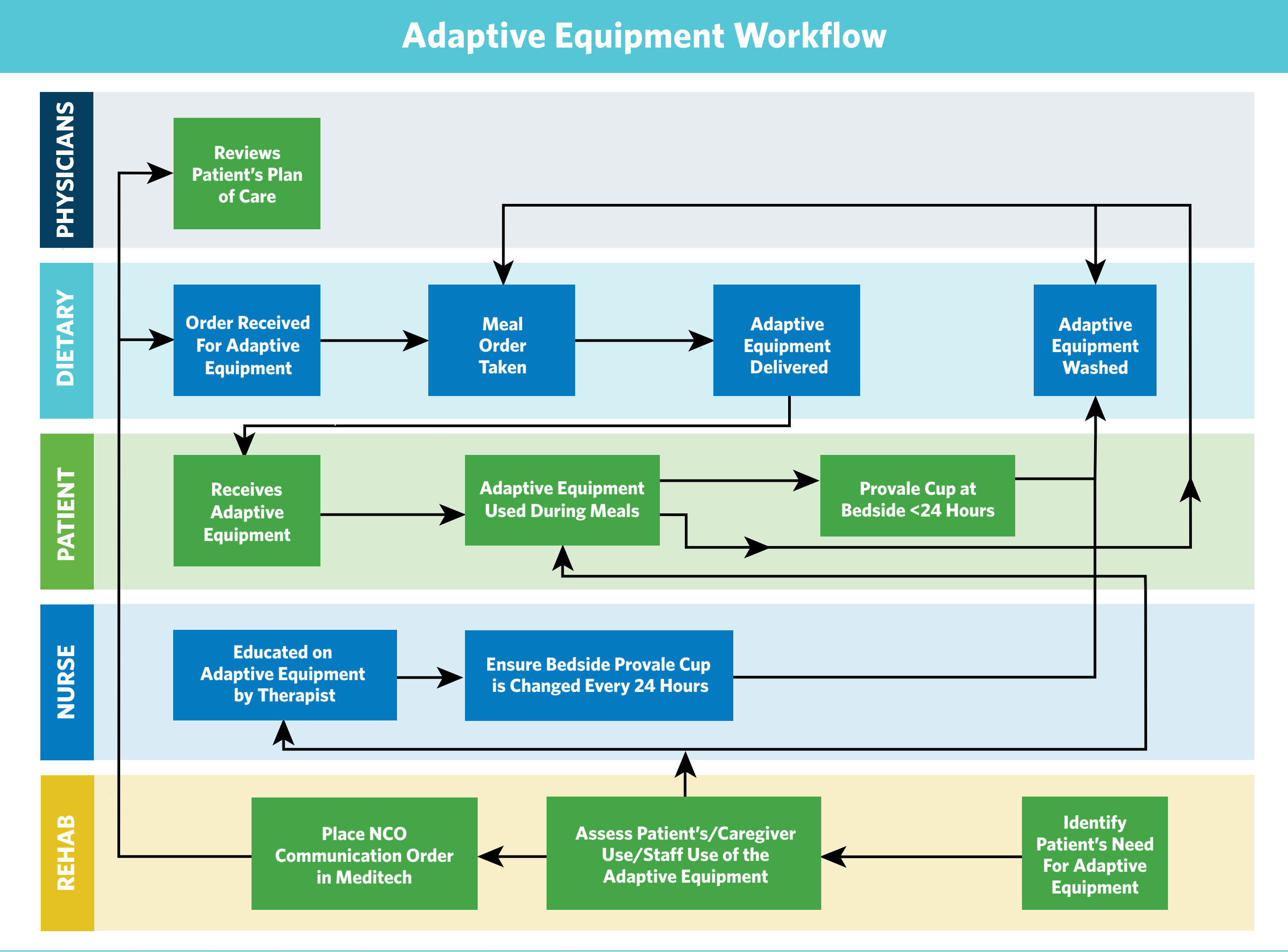
Beginning in January 2023, the previous management of Rehabilitation Services and Nutritional Services initiated a project to promote independence with feeding and to promote a therapeutic environment for patients during mealtime. This project resumed in November 2023 in collaboration with Nutritional Services, Materials Management, Infection Control, Occupational Therapy, and Speech Therapy departments to seek interdisciplinary feedback on how to move this project forward. Specific adaptive equipment items were selected and ordered for patient care to be placed on patients’ meal trays using the electronic medical record system (see Figure 1). Infection Control and Materials Management were consulted to ensure the equipment’s suitability for cleaning and infection prevention standards and best practices for ordering and stocking. To identify the responsibilities and involvement of key players involved in this process, a workflow was developed to guide the implementation, ordering, and training processes (see Figure 2). The workflow outlines the following:

- The occupational and/or speech therapist, according to the assessed needs of the patient, place an order through Nutritional Communication Order systems that will then be updated to CBORD® (www.cbord.com), a technology solution used for food and nutrition services, after skilled intervention. The therapist will be responsible for ensuring adherence to the use of the adaptive equipment by the patient, caregiver, and nursing staff before ordering.
- Once the order is submitted, the dietary clerks will add the items to the meal ticket. Nutritional Services will include the adaptive equipment on the patient’s meal tray for every meal.
- The meal tray will be delivered to the patient’s room and once completed will be returned to the kitchen for cleaning.
- A Provale cup will be placed at the bedside for water intake and is to be replaced every 24 hours per Infection Control guidelines.
- The use of visual aids in the patient’s room will be provided to highlight the adaptive equipment left at the bedside (see Figure 1).

Figure 1



Figure 2



Note. Abbreviation: Nutritional Communication Order (NCO)

Patients’ satisfaction with the adaptive feeding equipment will be assessed via seven questions which have been added to the Press Ganey® iRound rounding tool (see Table 1). The rehabilitation team will round on patients who have received the adaptive equipment, on the day they are scheduled for discharge, identified through the daily discharge log. Data will be compiled and evaluated by the project lead and used to provide updates to the organization, including the Rehabilitation Services team and the Salinas Valley Health Foundation, and to modify elements of the initiative as indicated . Funding for the acquisition of the adaptive feeding equipment was approved in September 2024 through the Partners in Excellence grant offered by the Salinas Valley Health Foundation. The project will go live on February 3, 2025.

Table 1

Press Ganey iRound Rounding Survey Questions	
Survey Question	Response Options
1. Are you satisfied with using the feeding adaptive equipment?	Yes/No
2. Is it easy to use the feeding adaptive equipment?	Yes/No
3. Has the feeding adaptive equipment affected your overall experience during mealtimes?	Yes/No
4. Has the feeding adaptive equipment helped you feel more independent during meals?	Yes/No
5. Does the feeding adaptive equipment meet your needs for eating and drinking?	Yes/No
6. What changes or improvements, if any, would you suggest for the feeding adaptive equipment?	Free text
7. Rounding Comments:	Free text

Results

The expected outcome of this project is an improvement in patients’ perceptions about self-feeding and their self-perceived independence. A limitation was that we did not collect data prior to implementation of the adaptive feeding equipment, which limits our ability to assess a change in patients’ perceptions. In addition, the rounding questions were developed internally and have therefore not been validated for measuring patients’ perceptions. We will begin collecting data in February 2025 and continue data collection for 24 months, ending in February 2027. Monthly updates will be provided to the Rehabilitation Services team and the Salinas Valley Health Foundation.

Conclusions

This project demonstrates the potential for adaptive equipment to enhance self-feeding patient satisfaction, self-perceived independence, and improved patient outcomes. Over the next year, the collaborative workflow will be trialed to refine the process. The ultimate goal is to enhance patient independence and satisfaction with self-feeding, leading to sustained improvements in mealtime experiences. The goal is to ultimately improve patient independence and satisfaction with mealtime experiences.

References

Boop, C., Smith, J., & Kannenberg, K. (2017). The practice of occupational therapy in feeding, eating, and swallowing. *American Journal of Occupational Therapy*, 71, 1-13.

Cavalcanti, A., Amaral, M. F., Silva e Dutra, F. C. M., Santos, A. V. F., Licursi, L. A., & Silveira, Z. C. (2020). Adaptive eating device: Performance and satisfaction of a person with Parkinson's Disease. *Canadian Journal of Occupational Therapy*, 87(3), 211-220.

Chen, B. J., Suolang, D., Frost, N., & Faigle, R. (2022). Practice patterns and attitudes among speech-language pathologists treating stroke patients with dysphagia: A nationwide survey. *Dysphagia*, 37(6), 1715-1722.

Rogus-Pulia, N., & Hind, J. (2015). Patient-centered dysphagia therapy-The critical impact of self-efficacy. *Perspectives on Swallowing and Swallowing Disorders*, 24(4), 146-154.

Shune S. E. (2020). An altered eating experience: Attitudes toward feeding assistance among younger and older adults. *Rehabilitation Nursing*, 45(2), 97-105.