Patient nutrition in hospitalised older patients is often overlooked. This can lead to human rights violations and negative patient outcomes. A multi-faceted and multidisciplinary approach is required to ensure optimal patient assistance and nutrition in hospitalised patients.

The focus of this study was the assistance given to patients at mealtimes. The study was seen as an initial step in raising staff awareness to become ‘food aware’. In addition we aimed to have evidence based systems and processes in place to ensure patients who needed assistance at mealtimes received the appropriate level and type of assistance required.

Background

The measurement of energy and protein intake is important in a patient’s nutritional care plan. Equally the social aspects of the taste, choice and presentation of the food, the mealtime assistance (MTA) and the environment in which the meal is eaten, are also of importance from a patient’s perspective.

Lack of assistance at mealtimes is a recognised problem in many countries, including Australia. There are a number of barriers to ensuring appropriate and timely mealtime assistance. These include nursing leadership, competing nursing priorities at mealtimes, inadequate knowledge by nurses, understaffing, role ambiguity, timing of staff meal breaks, and lack of a multidisciplinary approach.

Aim

To improve mealtime assistance, where needed, to patients on a general medical ward.

Objectives

- Increase staff awareness of the importance of mealtime assistance
- Ensure all patients are assessed for their need for mealtime assistance on admission
- Differentiate patients requiring assistance with setting up and/or eating at mealtime
- Introduce a coloured tray system as a visual cue to the level and type of mealtime assistance needed
- Clarify the roles of various groups in the provision of mealtime assistance
- Ensure families/carers are included and encouraged to assist at mealtimes, if desired, and it is safe to do so
- Provide staff education and training
- Measure improvements associated with new initiatives relating to mealtime assistance

Method
The Joanna Briggs Institute (JBI) model for Evidence-Based Health Care was the basis for transferring the evidence into practice in the study context. Specifically, the 'Evidence Implementation' component, involving a proven strategy of engagement, collaboration, audit, feedback and re-audit.

Phase 1

A review of local practices for mealtime assistance and compliance with evidence-based best practice standards was undertaken in June 2016 on the participating 28-bed general medicine ward. A baseline audit using direct observation of the meal delivery, environment and assistance using a specifically designed audit tool was undertaken at breakfast, lunch and dinner on two non-consecutive days by volunteer observers trained in the use of the audit tool.

Phase 2

Baseline audit results were analysed and disseminated to key stakeholders. A practice development approach, using a specific engagement tool, was adopted to engage key stakeholders in the process of practice change. Potential barriers were identified and patient-focussed solutions were generated as a shared process through focus groups with key stakeholders. Agreed interventions included:

1. All patients to be assessed for level of MTA on admission
2. Protected mealtime periods to be implemented
3. Patients and their environment to be prepared prior to meal delivery
4. Assistants in Nursing (AIN) start time to be changed with re-prioritisation of duties to assist with meals
5. Designation of set times for meal deliveries
6. Introduction of a coloured tray system – Red tray (full assistance) and Green tray (set up assistance)
7. Food Service Officers (FSO) dedicated to ward with agreement to provide set up (green tray) assistance
8. Family inclusion and encouragement at mealtimes
9. FSOs to check with nurses prior to removal of coloured trays
10. Staff education program

Phase 3

A follow-up audit was repeated over 2 non-consecutive days, as per Phase 1. The RHH re-development required the study ward to relocate to a smaller 22-bed ward between the audit phases. No other variations to the topic, the criteria, or characteristics of the study were noted.

Results

Effectiveness of intervention strategies introduced in this project were measured through comparing baseline and follow up audit results.

Demographics

A total of 149 meals were observed by 31 volunteers over 6 mealtimes (breakfast, lunch, dinner) at baseline audit (20th & 23rd June 2016) compared to 125 meals observed by 10 volunteers over 6 mealtimes at follow up audit (8th & 15th June 2017). Meal delivery and assistance to patients in isolation rooms is a known challenge. The combined total number of isolation rooms recorded for each audit period increased by 39% - from 28 to 46 rooms.

Dietary requests
Combined audit data show 38% (118/314) of menu orders were for a ‘regular’ diet code compared to 62% (196/314) for one or more ‘special’ diet codes. These data highlight the dynamic and complex challenge in getting the right meal and the right level of assistance, to the right patient, at the right time, three times per day in combination with relentless patient flow demands.

**Mealtime assistance**

Baseline audit data showed a difference of 72% (n=19) between patients assessed as needing MTA compared to patients actually provided with MTA. Follow up audit data show a reduction in this gap to 12% (n=4). There was little difference in the overall level of actual MTA provided but results reflect an increase in the number of patients being assessed for MTA and a significant improvement in the organisation, structure, efficiency and timing of the MTA provided.

**Time to mealtime assistance**

Differences in baseline and follow up audit data between meal delivery and time to assistance were significant. The average delay at baseline audit was 13.4 min (range 0-70 min) compared to the average delay at follow up audit of 3.6 sec (range 0-2 min). This improvement was attributed mainly to changes in role and responsibilities of FSOs and AINs.

**Mealtime interruptions**

There was a significant reduction in the number of mealtime interruptions recorded between audits. This was mainly attributed to the introduction of a protected mealtime period. Baseline audit showed 38% (56/149) of patients had 84 interruptions compared to 22% (28/125) of patients with 31 interruptions during the follow up audit. Overall this represents a 63% reduction in the total number of interruptions observed.

**What nurses had to say**

‘We love it…we think it’s a great idea!’ Nurse-in-charge, Evening Shift, 8th June 2017. Nurses also commented on the following:

- Improved patient satisfaction
- Inter professional teamwork enhanced
- Increased efficiency
- Coloured tray system effective
- Improvement in meal delivery to isolation rooms
- Set times for meal delivery critical

**What food services had to say**

‘…got on ward, all nurses at each room, all tables cleared, and patients sitting up ready for lunch…quick delivery…’ FSO, 25th May 2017. In addition FSOs commented on:

- Meal delivery and assistance to patients in isolation now a priority
- Tray collection from isolation rooms remains problematic
- FSO ‘set up’ assistance for green trays successful
- Preparation of patients & environment pre-meal delivery critical
- AIN/RN & FSO combined meal delivery process critical

**Conclusion**
The MTA project is a successful patient-centred initiative. The original aims of the project for staff to become more ‘food aware’, and for systems and processes to be in place to ensure patients get the right meal, at the right time, with the right assistance were achieved. The collaborative, inclusive and solution focused approach used to engage key stakeholders was successful. Significant improvements to the MTA process are attributed to improved collaboration, communication and cooperation between nursing and food services; clearly defined roles & responsibilities; increased patient assessment for level of MTA; preparation of patients & environment pre-meal delivery; and the introduction of a coloured tray system and protected mealt ime period. These interventions have resulted in mealtimes changing from chaos to calm, with increased patient and staff satisfaction, provision of MTA in seconds, and a decrease in the number of interruptions. Patients’ nutrition and their ability to enjoy and anticipate mealtimes has been enhanced. The success of the project is considered to be replicable and sustainable hospital-wide.

Title:
Mealtime Assistance: A Best Practice Implementation Project

Keywords:
evidence based practice, implementation science and patient nutrition

References:

Abstract Summary:
Mealtime assistance is a problem in many countries. This best practice implementation project was successful in turning mealtimes from chaos to calm and resulted in staff becoming ‘food aware’. Systems and processes were developed to ensure patients received the right meal, at the right time, with the right assistance.

Content Outline:
This presentation has been submitted to the evidence based practice component of the program. It outlines a successful knowledge implementation process including the crucial, but often overlooked, process of building engagement and collaboration. The project came about due to consumer advisory group concerns about the lack of mealtime assistance available to vulnerable elderly patients in a tertiary referral hospital. These patients can quickly become dehydrated and malnourished and this can be easily overlooked in a busy acute care setting.

The presentation will detail the methodology and methods used to successfully engage staff to adapt evidence from the literature and observations of ward practices at mealtimes to develop and implement local solutions to improve overall mealtime assistance rates and reduce waiting times for assistance.

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