

A Best Practice Implementation Project of Nutrition Care in Hip Fracture Patients



By: Brenda Williams, RD; Mentors: Drs. Angela M. Cheung & Maryam S. Hamidi

TAHSNp Innovation Fellowship Program, University Health Network

Introduction

Malnutrition is a serious yet avoidable emergency in Canadian hospitals¹.

- A study by the Canadian Malnutrition Taskforce has shown that 45% of individuals are malnourished on admission to hospital¹
- Studies show that 33% of hip fracture patients are malnourished prior to injury², and this number can increase up to 50% once they are admitted to hospital³
- Malnutrition is associated with; delayed wound healing, muscle weakness and falls, prolonged length of hospital stay, and in turn, increased healthcare costs⁴

Nutrition screening has been identified as an initial strategy to treat malnutrition and promote early nutrition intervention⁵.

Objectives

Within the six months of the Fellowship program I set out to:

- ➤ Increase awareness of malnutrition in Canadian hospitals in all nursing staff on the orthopaedic unit at the Toronto Western Hospital, UHN
- Implement a nutrition screening process for 100% of hip fracture patients admitted to the orthopaedic unit at the Toronto Western Hospital, UHN
- ➤ Improve nutrition care for patients with malnutrition or at risk of malnutrition



- Knowledge increase
- Teamwork

Intermediate Outcomes

- Increase number of nutrition screening/nutrition intervention
- Increase number of registered dietitian referrals

Long-term Outcomes

- Minimize nutrition related complications
- Improve patient care

Implementation

- Education was provided to staff on causes and prevalence of malnutrition in an acute care environment
- 7 education sessions took place over at two month period
- 64 staff and students attended the sessions; professions are broken down in table 1
- Content covered included:
 - ✓ Prevalence of malnutrition in Canadian hospitals •
 - ✓ Causes of malnutrition
 - ✓ Consequences of malnutrition
 - ✓ Strategies to help address malnutrition in an acute care setting

- The Canadian Nutrition Screening Tool (CNST) was introduced to all nursing staff by February 29th, 2016 using one-on-one impromptu huddles
- Staff were instructed to use the CNST to screen for malnutrition in all hip fracture patients admitted to the unit
- Patients who screened 'at risk' for malnutrition indicate need for a registered dietitian referral
- Chart audits were conducted to monitor:
 - ✓ If screening was complete
 - ✓ When screening was complete
 - ✓ If an individual was considered 'at risk' for malnutrition whether an registered dietitian consult was requested

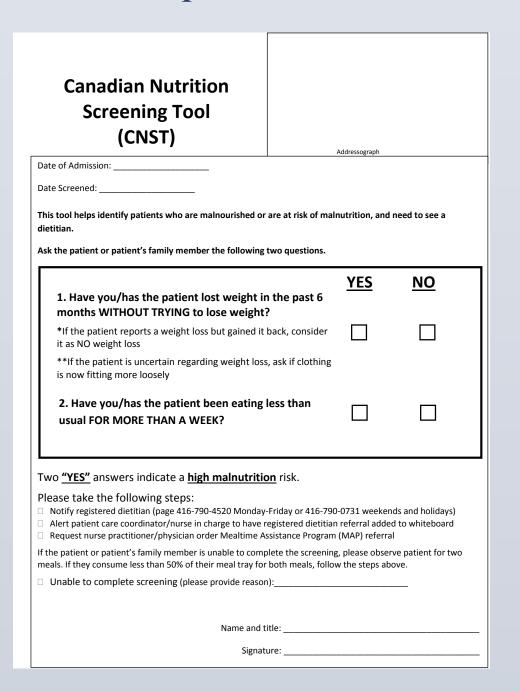
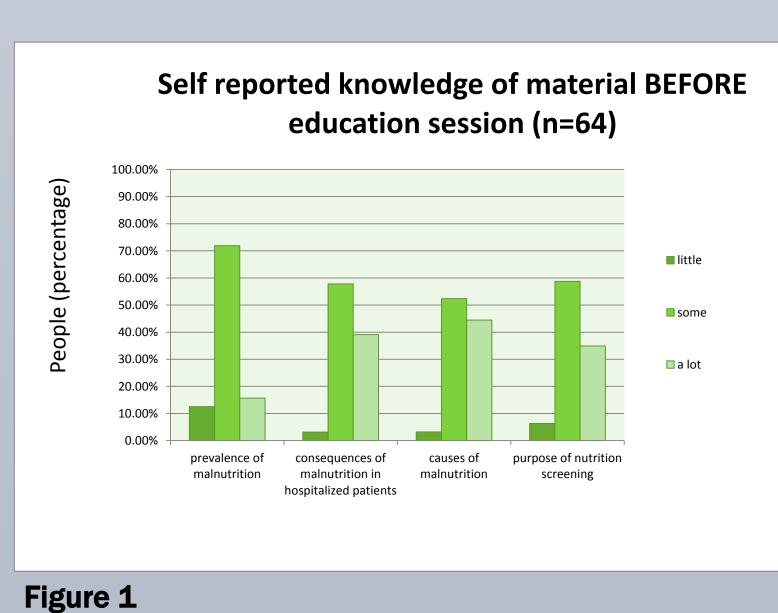
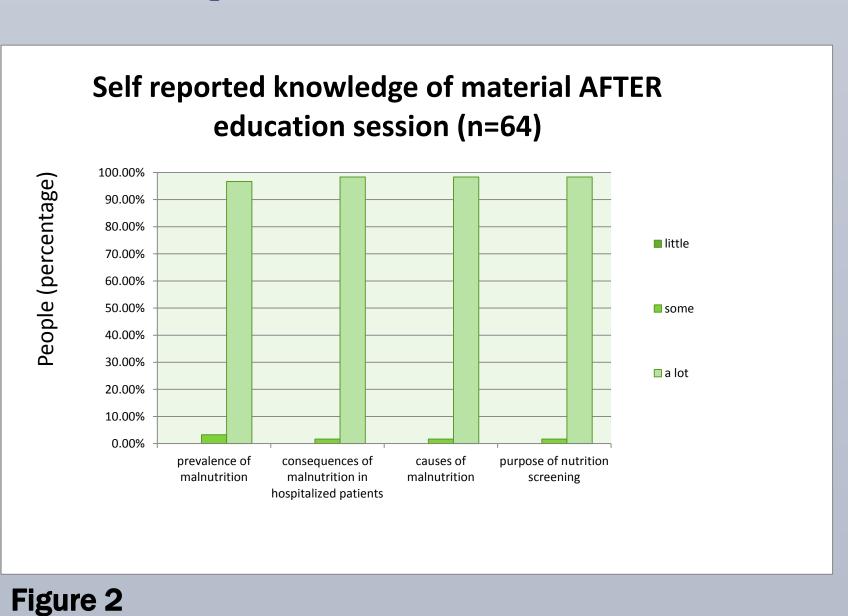


Table 1: Staff Attendance at Education Sessions

Results

- 94% of nursing staff received education on malnutrition in Canadian hospitals
- Results from a 5-question post-education session survey show a minimum of a 30% increase in self reported knowledge change in the topics outlined in figures 1 & 2
- 75% of education session attendees agreed with the statement, "We are all responsible for identifying and treating malnutrition on our unit."
- By March 15th, 2016, 100% of hip fracture patients admitted to the orthopaedic unit at the Toronto Western Hospital, UHN were screened for malnutrition within 72 hours of hospital admission





Project Impact

- Timely screening for malnutrition on admission to hospital will:
 - 1. Facilitate prompt identification of those patients requiring nutrition intervention by a registered dietitian
 - 2. Help to improve patient care by minimizing nutrition related complications

Sustainability

- Sustainability will be achieved by:
 - ➤ Ongoing chart audits to ensure nutrition screening is taking pace & registered dietitian referrals are made when warranted
 - ➤ Inclusion of the purpose & process of nutrition screening in the Orthopaedic Nursing Resource Manual which is given to all new nursing staff
 - ➤ Annual education sessions on the topic of malnutrition

References

- 1. Allard, J.P., Keller H., Jeejeebhoy, K.N., et. al. (2015). Malnutrition at hospital admission-contributors and effect on length of stay: a prospective cohort study from the Canadian Malnutrition Task Force. *Journal of Parenteral and Enteral Nutrition*, 20(10), 1-11.
- 2. Eneroth, M., Olsson, U.B., Thorngren, K.G. (2005). Insufficient fluid and energy intake in hospitalized patients with hip fracture. A prospective randomized study of 80 patients. *Clinical Nutrition, 24, 297-303.*
- 3. Bell, J.J., Bauer, J.D., Capra, S., et al. (2014). Concurrent and predictive evaluation of malnutrition diagnostic measures in hip fracture inpatients: a diagnostic accuracy study. *European Journal of Clinical Nutrition*, 68(3), 358-362.
- 4. Rahman, A., Wu, T., Bricknell, R., et al. (2015). Malnutrition in Canadian Hospitalized Patients: malnutrition risk in hospitalized patients in a tertiary care center using the malnutrition universal screening tool. *Nutrition in Clinical Practice*, 30(5), 709-713.
- 5. Kruizenga, H.M., Van Tulder, M.W., Seidell, J.C., et al. (2005). Effectiveness and cost-effectiveness of early screening and treatment of malnourished patients. *American Journal of Clinical Nutrition, 82, 1082-1090.*

Acknowledgements

- Collaborative Academic Practice (CAP)
- Canadian Malnutrition Task Force
- Charlene Reynolds, PT
- Debra MacGarvie, RD

For more information on this project contact
Brenda.Williams@uhn.ca