

Introduction

- 45% of patients admitted to a medical or surgical ward in Canadian hospitals are malnourished.¹
- Malnutrition has been shown to increase mortality, length of stay, and risk of readmission, affecting patient flow and health care costs.^{1,2}
- The Integrated Nutrition Pathway for Acute Care (INPAC) is an evidence-informed, consensus based algorithm designed to promote the detection, treatment and monitoring of malnutrition.
- The More-2-Eat (M2E) project is the implementation of INPAC in 5 hospitals across Canada.

Aim

To optimize nutrition care in hospitals, and thus performance of the healthcare system by ensuring that malnutrition and poor food intake are prevented, detected and treated, hence promoting the recovery, function and quality of life of patients, with particular attention on the needs of frail elderly.



Phases of More-2-Eat

Developmental Phase

May-Dec 2015

Purpose:

To focus on building readiness by: creating clinical education materials; training key site staff; equipping the site implementation team; collecting baseline data to identify the problem

Measures:

Site survey
Dietitian workload
INPAC Audit (~600 patients)
KAP staff survey (~150)
Focus groups/staff or management interviews (~10 groups/ 100 staff)
Direct Patient Assessment (n=200)
CNST
SGA
M-MIT
MAT
Patient Demographic and Health Information
Tracking food and Mealtime Assistance for Patients
Thirty Day Post Discharge Follow-up

Testing & Implementation Phase

Dec 2015 - Dec 2016

Purpose:

To focus on mentoring site teams in their plan-do-study-act cycles to test and implement the INPAC; monitor change processes; collect data to determine change in care processes and patient reported outcomes

Measures:

Scorecard
Dietitian workload
INPAC Audit Form (~3600)
Direct Patient Assessment (n=1200)
CNST
SGA
M-MIT
MAT
Patient Demographic and Health Information
Tracking food and Mealtime Assistance for Patients
Thirty Day Post Discharge Follow-up Contact (at 4-5 months and 11-12 months)

Sustainability Phase

Jan - April 2017

Purpose:

To focus on continuation of INPAC components with minimal supports; finalize INPAC Implementation Toolkit

Measures:

Site survey
INPAC Audit Form
KAP staff survey (n=150)
Focus groups/staff or management interview (~10 groups/ 100 staff)



Summary of the More-2-Eat Project

- M2E is designed to **test and implement** all aspects of the INPAC in five diverse hospitals in four provinces of Canada.
- M2E utilises the Knowledge-to-Action process, Plan-Do-Study-Act (PDSA) cycles, and an overarching **Model for Improvement and Quality Implementation Framework**.
- Staff will be **educated** regarding malnutrition (prevalence, barriers, cost etc.), the INPAC, and tips for implementation.
- Patient education materials** will be created regarding the importance of treating 'food as medicine'.
- Data collection is qualitative and quantitative at the **site, unit, staff, and patient levels**, including audits of INPAC components as well as patient reported outcomes (e.g. food intake).
- The primary outcome of M2E is the **INPAC implementation toolkit**.



Measures

Site survey - describes numbers and roles of staff specific to nutrition care on the unit, as well as procedures (e.g. meal delivery system) that could influence food provision and mealtime experiences, resource costs (e.g. ONS costs, human resources), etc.

Scorecard – completed at each site implementation meeting to track PDSA topics and other implementation activities.

Dietitian workload - includes referrals to the RD, and their time for assessment, treatment and monitoring.

INPAC Audit Form - to track progress towards fidelity with the INPAC algorithm.

CNST - Canadian Nutrition Screening Tool – a 2 question screening tool which assesses risk of malnutrition.

SGA - Subjective Global Assessment - an assessment tool to determine if the patient is classified as *well nourished* (A), *moderately or suspected of being malnourished* (B) or *severely malnourished* (C).

M-MIT - My Meal Intake Tool - assesses intake of fluids and food provided at a single meal as well as reasons for poor consumption.

MAT - Mealtime Audit Tool – determines barriers to food intake and patient perceptions of a single meal.

Patient Demographic and Health Information - Quality of Life, Nagi Disability scale, 5 metre walk, hand grip strength, nutrition care

Tracking food and Mealtime Assistance for Patients - Mealtime resources used by selected patients are tracked on a single day. This will include volunteer, family and staff time needed to assist with feeding, set up for the meal etc. for this specific patient.

Thirty Day Post Discharge Follow-up Contact – Follow-up questions regarding a variety of measures (SF-12, QOL, Nagi Disability scale, community resources accessed etc.)

Knowledge, Attitudes and Practice (KAP) survey – a reliable survey administered to hospital staff regarding malnutrition in their hospital.

Focus groups/staff or management interview – conducted to determine barriers to INPAC implementation and sustainability.

KEY MESSAGE

Changing hospital nutrition care requires an interdisciplinary, complex intervention. More-2-Eat will identify and test the processes required for the implementation of a nutrition care improvement, how it is sustained and the resource implications required for scaling up.

References

1. Allard JP, Keller H, Jeejeebhoy KN, Laporte M, Duerksen DR, Gramlich L, et al. Malnutrition at hospital admission: contributors and effect on length of stay: A prospective cohort study from the Canadian Malnutrition Task Force. *J Parenter Enteral Nutr.* 2015;Epub ahead of print. 2. Russell CA, Eisa M. Nutrition screening surveys in hospitals in the UK, 2007-2011. *BAPEN.* 2014. 3. Keller H, McCullough J, Davidson B, Vesnaver E, Laporte M, Gramlich L, et al. The Integrated Nutrition Pathway for Acute Care (INPAC): Building consensus with a modified Delphi. *Nutrition Journal.* 2015;Unpublished. 4. Graham ID, Logan J, Harrison MB, Straus SE, Tetroe J, Caswell W, et al. Lost in knowledge translation: time for a map? *J Contin Educ Health Prof.* 2006;26(1):13-24. 5. Grimshaw JM, Eccles MP, Lavis JN, Hill SJ, Squires JE. Knowledge translation of research findings. *Implement Sci.* 2012;3(17):50. 6. Laur C, McCullough J, Davidson B, Keller H. Becoming Food Aware in Hospitals: A narrative review to advance the culture of nutrition care in hospitals. *Healthcare.* 2015. Unpublished. 7. Taylor ML, McNicholas C, Nikolay C, Bara A, Bell D, Reed JE. Systematic review of the application of the plan-do-study-act method to improve quality in healthcare. *BMJ Qual Saf.* 2014;23(4):290-8. 8. Canadian Patient Safety Institute. Improvement Frameworks: Getting Started Kit. 2011; Available at: <http://www.saferhealthcarenow.ca/EN/interventions/Pages/default.aspx>