Starving for Collaboration: Addressing Hospital-Based Malnutrition and the Power of Teams

Speakers

Leah Gramlich, MD, Professor of Medicine, Ualberta

Roseann Nasser, MSc, RD, Saskatchewan Health Authority

Moderator: Sue Owen, Impreza Consulting

Synergies in action: The power of collaboration

Starving for Collaboration: Addressing hospital-based Malnutrition and the power of Teams

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Disclosures

Dr. Leah Gramlich:

- Speaker: Abbott, Baxter, Fresenius Kabi, Takeda
- Consultant: Abbott, Baxter, Fresenius Kabi, Takeda

Roseann Nasser

- Co-Chair, Canadian Malnutrition Task Force

Susan Owen

Canadian Malnutrition Task Force (CMTF)

Canadian Malnutrition Task Force | le Groupe de travail canadien sur la malnutrition

Canadian Nutrition Society / Société canadienne de nutrition

About Us…..

We are a group of clinicians, decision makers, and researchers that **advance nutrition care across all health sectors through research, education, advocacy and interdisciplinary collaboration in Canada**

CMTF is the **national voice** for addressing malnutrition across Canada

Canadian Nutrition Society is the official society and governing organization for CMTF

Our Agenda for Today

1. **Share CMTF's knowledge** and experience regarding Malnutrition
2. **Seek your advice -** how can healthcare leaders address Malnutrition?
3. **Invite you to work collaboratively** to address Malnutrition
4. **Raise awareness -** Learn that Malnutrition Care will advance organizational priorities

Agendas at your seats

Time	Approach	Lead
11:00	**Session Welcome** ▪ Sue to welcome audience ▪ Leah, Roseann to introduce selves ▪ Sue to invite audience members to share their personal objectives for the session	Sue
11:05	**Overview of Hospital-based Malnutrition** (increase awareness/understand impact) - Create the "burning platform" - Overview of the urgency/depth of the issue	Leah/ Roseann
11:45	**What's Working?** (Learn from leading practices) - Share success stories – what makes for success?	Leah/ Roseann
12:00	**Looking at Challenges, Ideating on Solutions** - Small group discussion with facilitated take-up - Tables 1-2: How can we create better awareness of malnutrition in healthcare? - Tables 3-4: How can we OVERCOME these barriers? - Tables 5-6: Best advice to Senior Leaders and Government?	Sue
12:25	Closing Remarks & Thank you	Sue

Our Objectives

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1

Create awareness and burning platform for change

Create a coalition of the willing to address Malnutrition by adopting best practices and effecting change

2

Identify what needs to be done

Seek advice from leaders on how to build momentum and enthusiasm

3

Call to action

Identify next steps

Support ‘champions’ to advance Malnutrition care with and through organizational priorities

4

Identify partners

Identify system leaders and influencers with whom CMTF can work

By the end of this session…

- **We hope you will:**
  - Understand the magnitude and impact of Malnutrition within your hospitals and healthcare organizations
  - Appreciate approaches and implementation strategies to tackle Malnutrition
  - Identify your organizational priorities that are linked to Malnutrition: commit and apply nutrition care to address those organizational priorities
  - Become a Malnutrition Champion

Overview of Hospital-Based Malnutrition

Before We Begin..

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Testing your awareness (Pt. 1)

- Does malnutrition exist in Canada?
- Are hip fractures, pressure injuries linked to malnutrition?
- Do acute and chronic diseases cause malnutrition?
- Do medications and treatments contribute to malnutrition?
- Does the health care system contribute to malnutrition?

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Advancing Nutrition Care in Canada /Améliorer les soins nutritionnels au Canada

www.nutritoncareincanada.ca

Canadian Nutrition Society / Société canadienne de nutrition

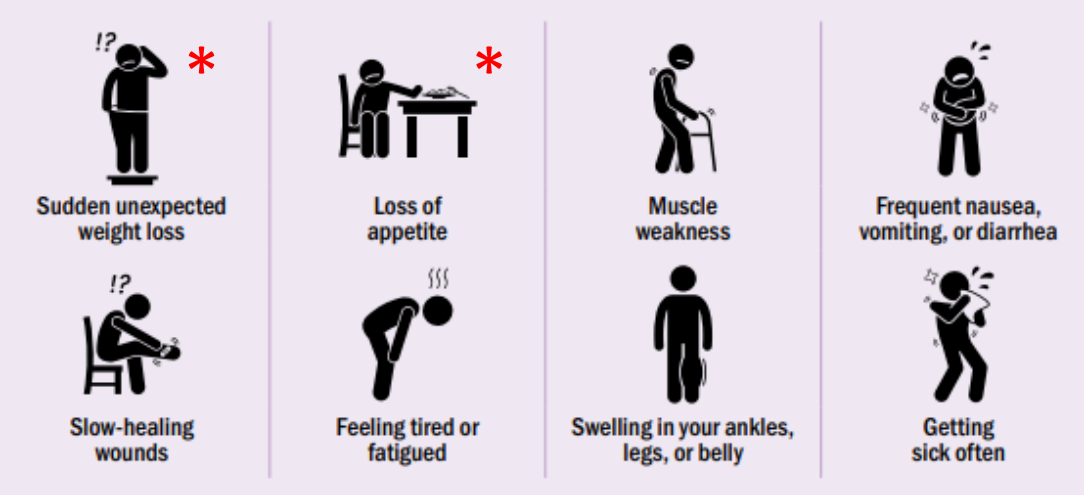
www.cns-scn.ca

The NEED:
Why Malnutrition Matters?

What is Malnutrition?

- Imbalance of nutrients resulting in functional decline.
  - Inadequate intake
  - Impaired nutrient absorption
  - Increased energy expenditure
- It's not always easy to see – but easy to screen* for.
- There are serious consequences for a patients and for health systems.

Warning Signs



Consequences

Source: https://www.nutritioncare.org/uploadedFiles/Documents/Malnutrition/MAW_2021/Consumer-Info-Sheet-Geriatrics-8.5.21.pdf -

What does malnutrition look like?

- Size 10 to Size 2 in short time fram
- Returning not eaten food trays
- Not being able to get up and walk
- Learning to eat again and re-walk
- Developing pressure injuries withir minutes
- It is a loss of **hope**

Testing Your Awareness..Pt.2

- What is the **MAGNITUDE** of malnutrition in Canadian Hospitals?

Incidence in Hospital

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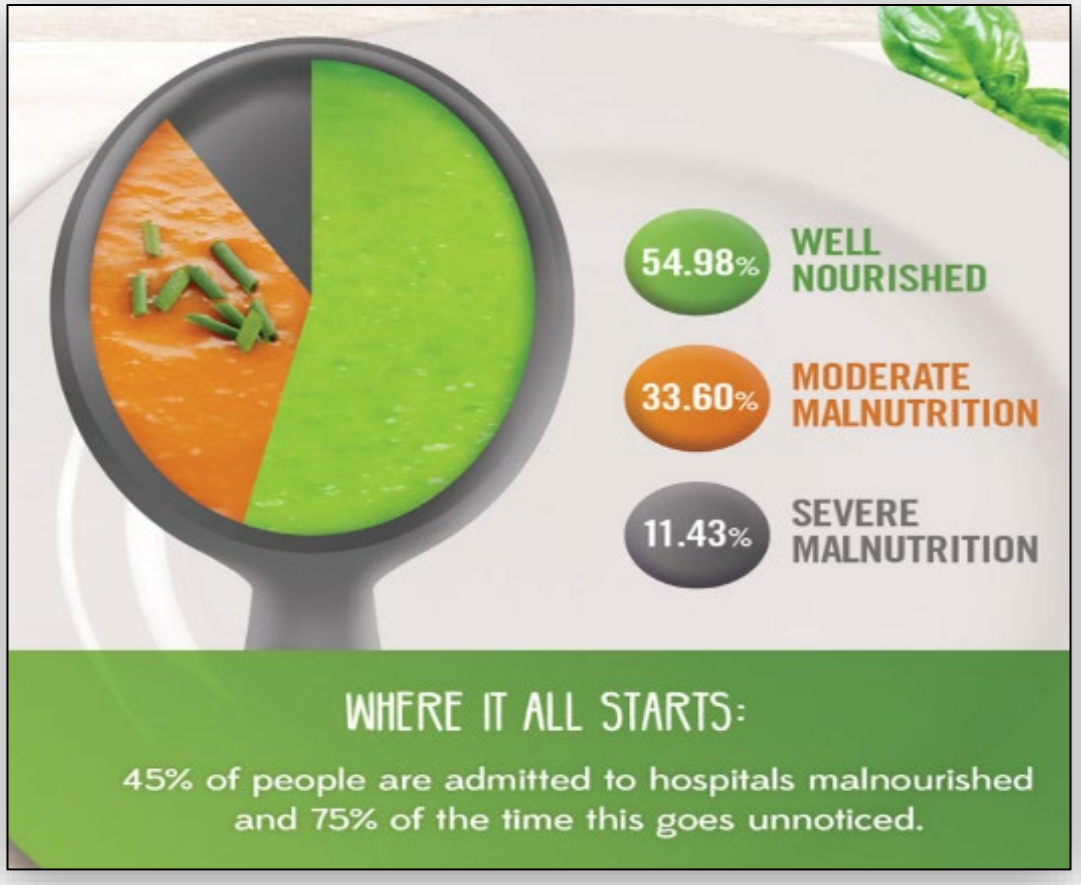
On admission to hospital:

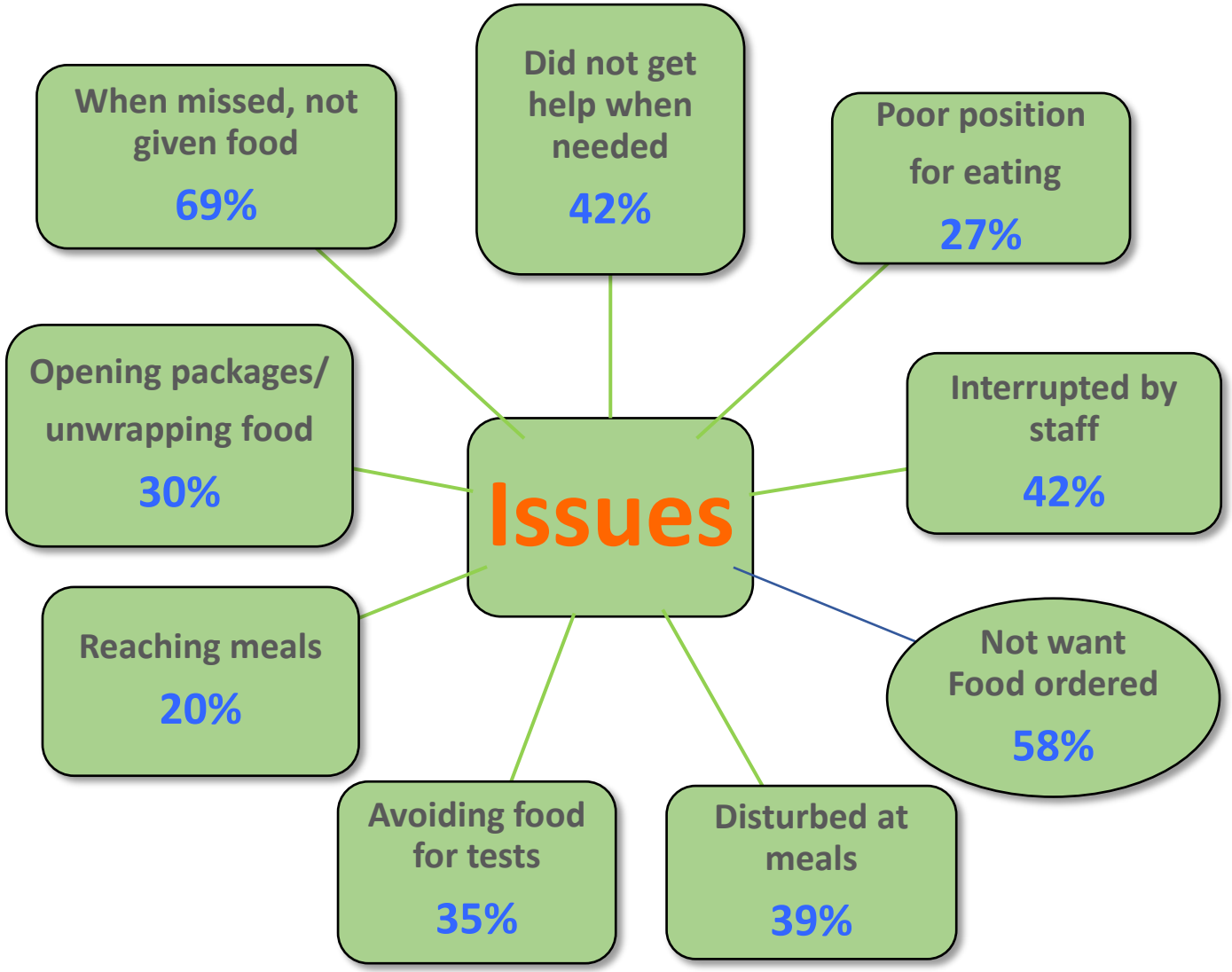
Up to 1 in 2 adult patients
admitted to hospital is malnourished

Up to 1 in 3 pediatric patients
admitted to a tertiary hospital is malnourished



Allard et al JPEN 2016; Belanger et al J Pediatric 2019; Carter et al Can J Diet Pract Res 2019

In Hospital Food Intake Barriers



Keller et al., JHND 2015

Poor food intake is a reality

Allard et al., 2016; Belanger 2019; Ramage-Morin et al Stats Canada Health Reports 2013

Testing Your Awareness..Pt.3

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- What is the **IMPACT** of malnutrition in **YOUR** organization?

Malnutrition is Costly

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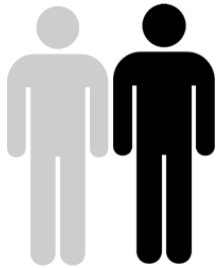
Hospital consequences



Up to **1 OUT OF 2** Canadians admitted to hospital is malnourished[1]

3 days longer stay in hospital[2]

$2K Average additional cost/patient[2]

x8 more likely to die[3]

x2 more likely to be readmitted[4]

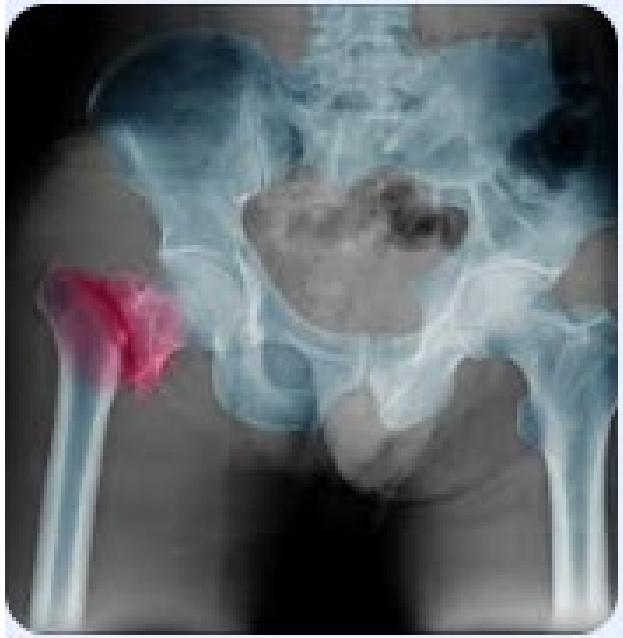
$2 billion/year is the estimated cost of malnutrition

1. Allard JP et al JPEN 2015; 2. Curtis LJ et al. Clin Nutr 2016; 3. Fleder S et al. Nutrition 2015; 4. Lim SL et al. Clin Nutr 2012

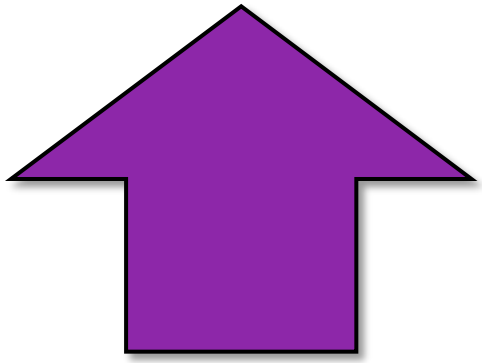
How else does malnutrition affect the healthcare system?

- Impact of Malnutrition on Quality & Safety is **SIGNIFICANT**
- Malnutrition is a **risk factor** for hip fractures and falls
- Patients with malnutrition are **8x more likely to fall** compared to those not malnourished
- Patients (**over 50 years of age**) admitted to the ER with hip fractures who are malnourished
  - ↑ LOS, ↑re-hospitalization ↑ resource and treatment costs ↑ mortality

Franz et al. 2023

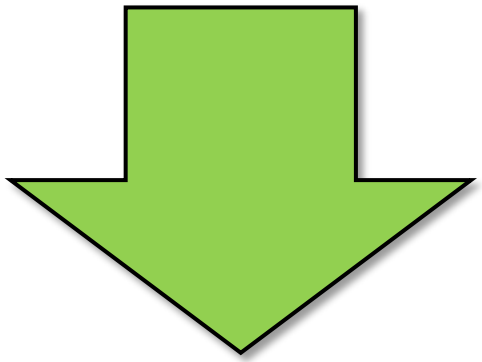


Malnutrition Negatively Affects Patients' Safety and Hospital Performance Indicators



-Risk of infection and pressure ulcers[1]

-Institution resource utilization and costs



- Patient flow[2] and hospital access

- Patient satisfaction[3]

. 1. Lim SL et al. Clin Nutr 2012. 2. Keller H et al J Hum Nutr Diet. 2013. 3. Keller HH et al. J Hum Nutr Diet. 2015

THE SOLUTION
Malnutrition can be treated

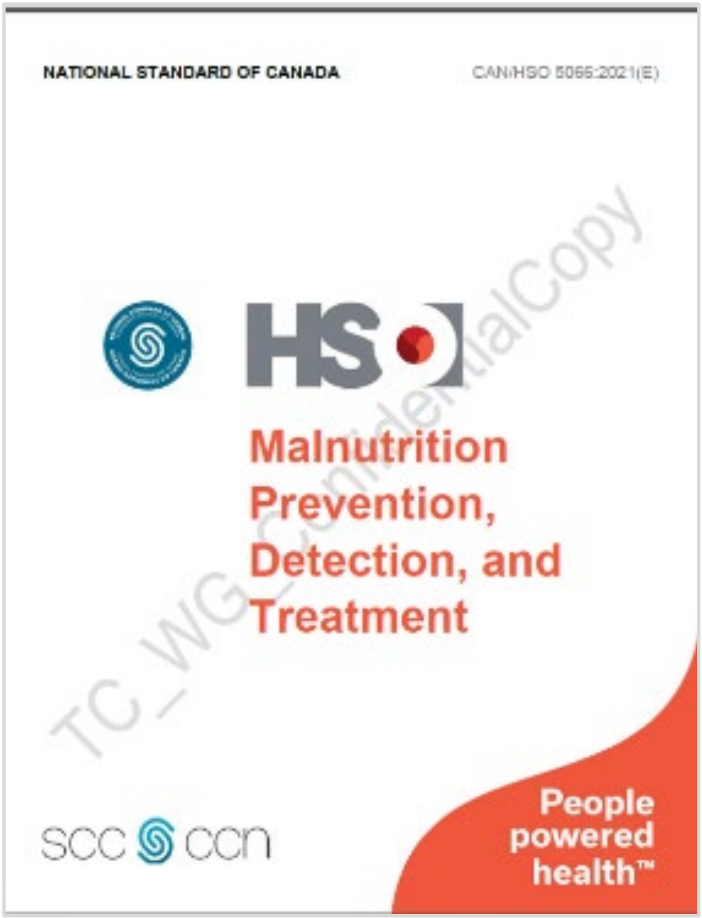
What works?

- **Change in thinking:** Food is Medicine, not a budget item
- **Systematic screening and early diagnosis** for malnutrition
  - (like systematic screening for fall risk and pressure injuries)
- **Standardized language**
- **Embedding tools** and processes into multidisciplinary team-work

National Standard

Malnutrition Prevention, Detection and Treatment Standard (CAN/HSO 5066:2021)

- A National Standard of Canada, recognized by the Standards Council of Canada (SCC)
- Provides acute care organizations with the best practices to address malnutrition in adults and children
- Created in collaboration with CMTF
- Available through each hospital's accreditation team



https://healthstandards.org/standard/malnutrition-prevention-detection-and-treatment

Integrated Nutrition Pathway for Acute Care

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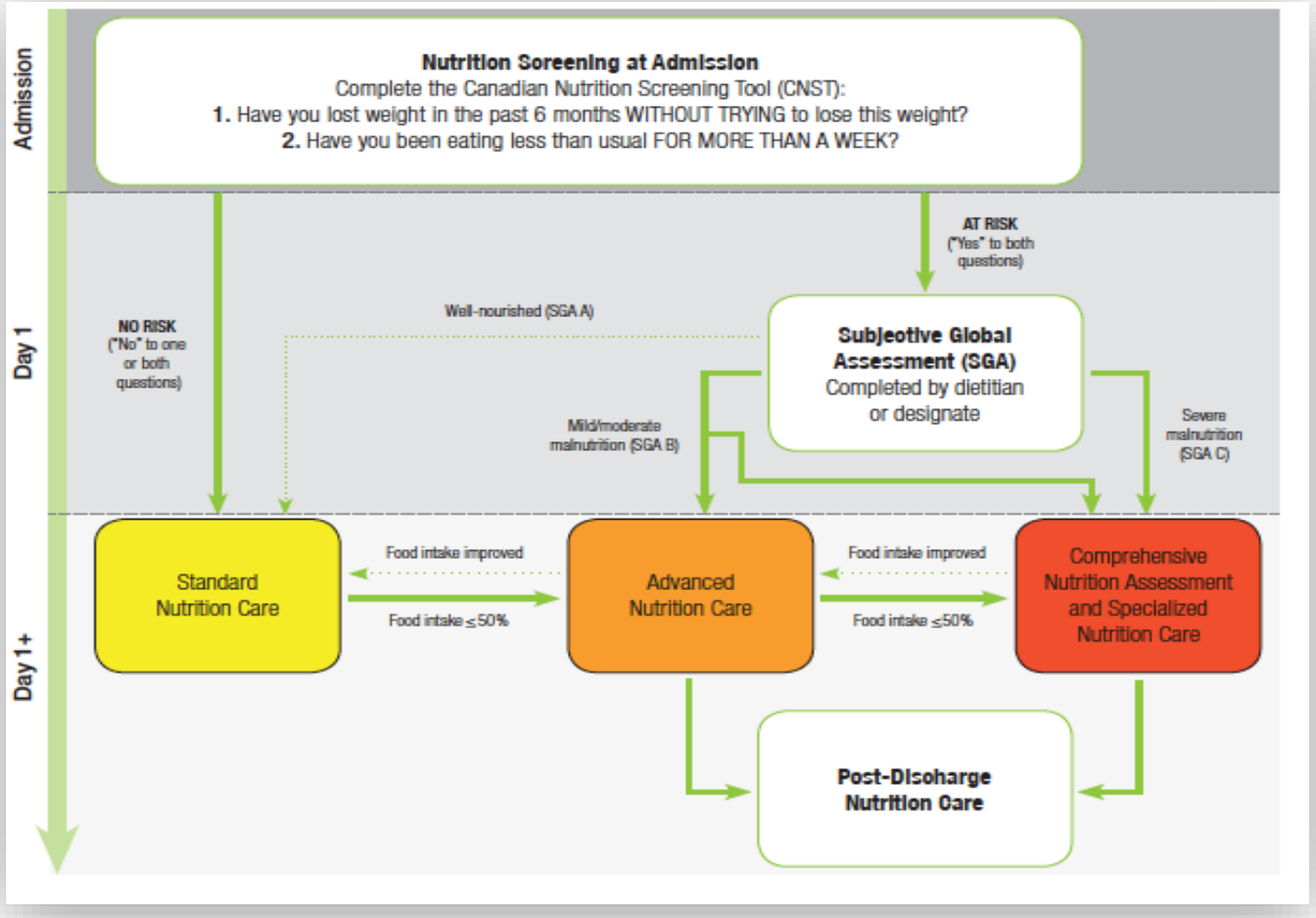
An evidence-based algorithm for the detection, treatment and monitoring of malnutrition amongst acute care medical and surgical patients



P-INPAC, Pediatric Integrated Nutrition Pathway for Acute Care also exists
https://nutritioncareincanada.ca/resources-and-tools/hospital-care-inpac/inpac

Keller et al., 2015; Keller et al., 2018

Optimal Nutrition Care

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Food is Medicine

- food is available
- open packages. clear bedside table
- family bring preferred foods
- ensure food is appropriate
- consult dietitian if consuming less than 50 per cent of foods

Practices that should occur for malnourished or at-risk patients:

- identify barriers to food intake
- address barriers
- nutrient dense liberalized diet, preferred foods, snacks between meals and high energy/protein shakes/drinks and snacks

Practices for patients with severe malnutrition:

- identify and manage barriers to food intake
- identify and manage eating behaviours to support food intake
- individualized treatment and monitoring

Treatment

Multiple studies have shown that nutrition interventions in hospital can make a difference in outcomes

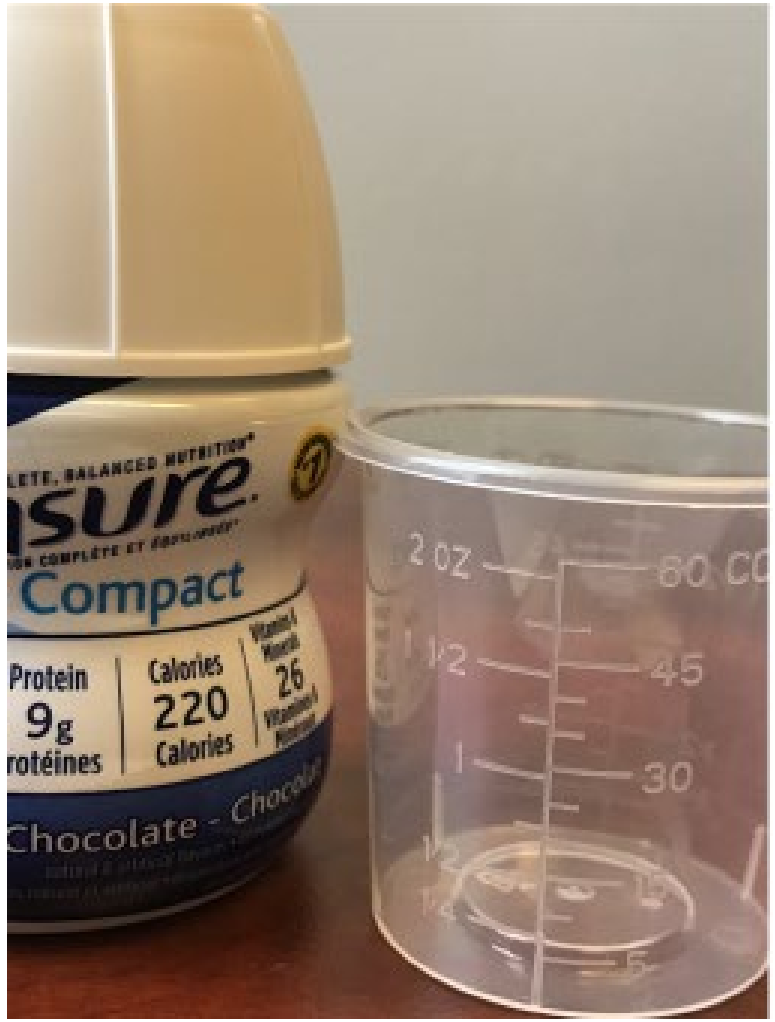
Interventions

- Targeted protein and calorie goals
- High quality meals and diet modification
- Address barriers to intake/ protected mealtimes
- Flexible mealtimes/ room service
- Oral nutrition supplements
- Enteral/ parenteral nutrition
- Early feeding

- EFFORT Trial 2019
- Kaegi-Braun 2021
- NOURISH study 2019
- Gomez 2019
- KANEKO 2021 to name a few…..

Deutz et al. Clin. Nutr. 2016; Kaegl-Braun et al. JAMA 2021; Schuetz P et al. Lancet 2019; Gomez et al JAMA Network Open 2019; KANEKO et al Am J Cardiol 2021

Treatment: PPO 590



What do you know about PPO 590?

- **Standard Treatment**
- 60 mL PO QID 0800h, 1200h, 1600h, 2200h
- 60 mL PO TID 0800h, 1400h, 2200h
- **Double Treatment**
- **(<25% of meals)**
- 120 mL PO QID 0800h, 1200h, 1600h, 2200h

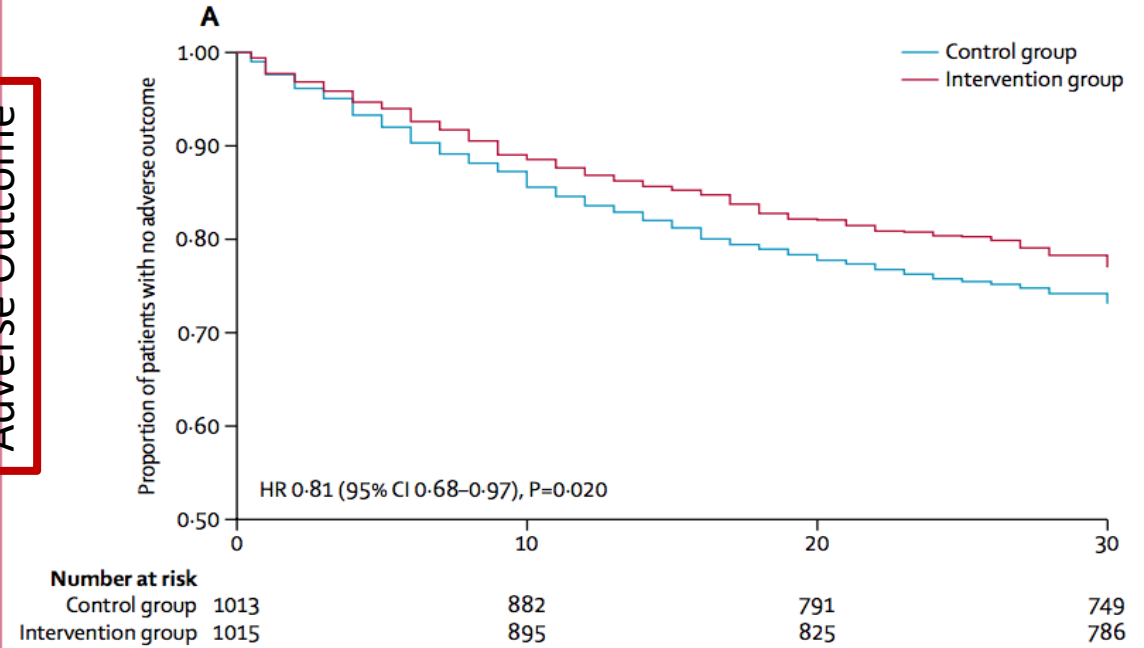
Effort Scheutz Lancet 2019

- 23% patients in the intervention group vs 27% in the control group **experienced an adverse clinical outcome** (adjusted OR: 0·79 [95% CI 0·64–0·97], p=0·02373

- **7% of patients died in the intervention group** compared with 10% patients in the control group adjusted OR 0·65 [0·47–0·91], p=0·011).

- **There was no difference in the proportion of patients who experienced side-effects** from nutritional support between the intervention and the control group (162 [16%] vs 145 [14%], adjusted OR 1·16 [0·90–1·51], p=0·26).

Adverse Outcome



Survival

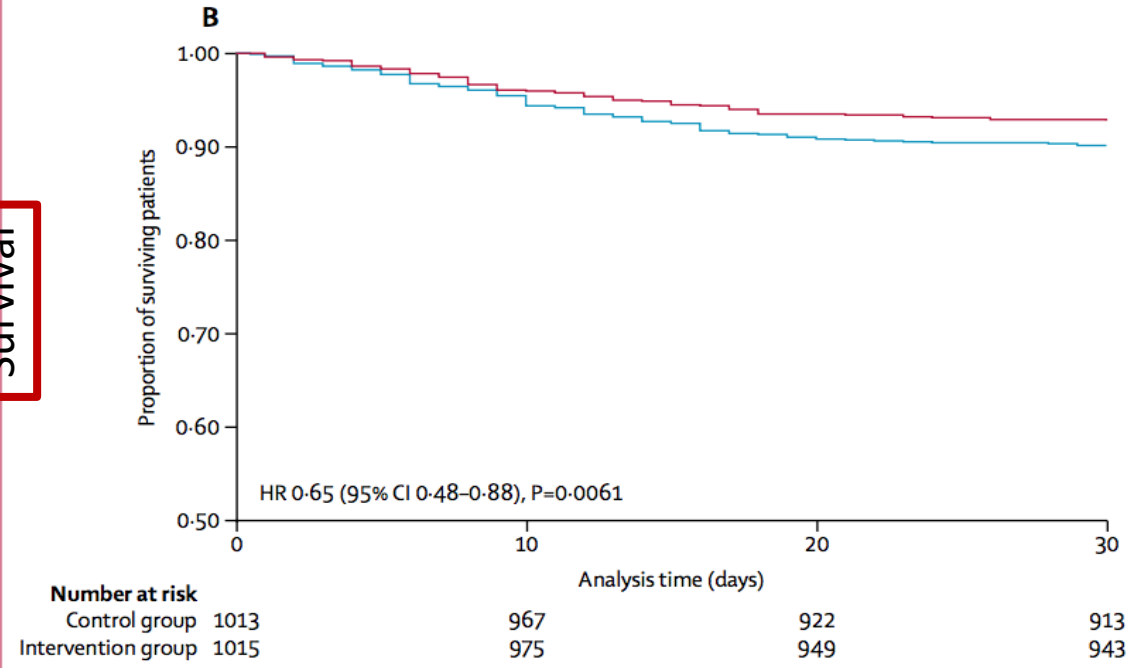


Figure 4: **Kaplan-Meier estimates of the cumulative incidence of the primary endpoint and all-cause mortality**

Cost savings

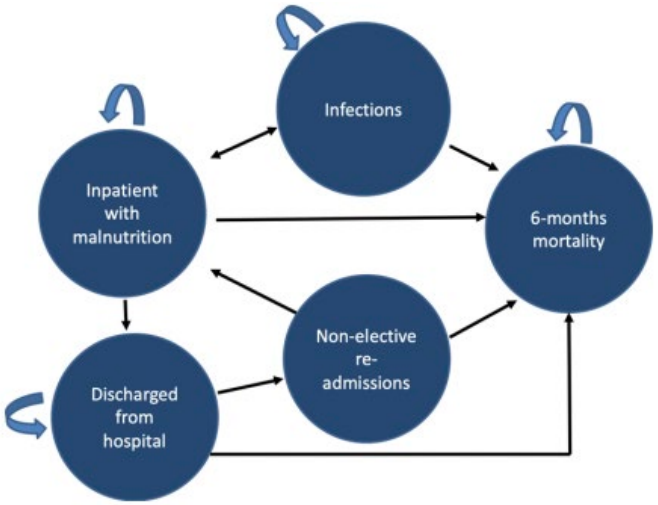


Figure 1 Health states within the Markov model. Designations of health states were based on findings in the meta-analysis report by Gomes *et al*.[4]

Table 2 Base-case results

	Life days		Utilities, QALD		Cost, US$	
Patient state	Nutritional support	No nutritional support	Nutritional support	No nutritional support	Nutritional support	No nutritional support
Hospitalised, malnourished	11.49	12.00	0.022	0.023	63 227	66 045
Non-elective readmission	0.14	0.17	0.000	0.000	193	237
In-hospital with Infection	0.52	0.60	0.001	0.001	4554	5374
Discharged from hospital	162	159	0.342	0.333	37 597	36 863
Death	7.74	10.27				
Total (sum of health states above)	174.26	171.73	0.365	0.358	105 608	108 520

QALDs, Quality-Adjusted Life Days.

Conclusions:

In-hospital nutritional support is a cost-effective way to reduce risk for readmissions, lower the frequency of hospital-associated infections, and improve survival rates

2021 BMJ open Philipp Schuetz ,1,2 Suela Sulo ,3 Stefan Walzer,4,5,6 Lutz Vollmer,4 Cory Brunton,3 Nina Kaegi-Braun,1 Zeno Stanga,7 Beat Mueller,1 Filomena Gomes1,

‘More-2-Eat’ Study (phase 1)

What INPAC components were implemented?

In 5 diverse hospitals across 4 provinces

in **all** hospitals

- Nutrition screening at admission (with CNST)
- Using SGA to triage patients
- MedPass used for SGA B & C

in **most** hospitals

- Food intake monitoring and following up low intake
- Volunteers available during mealtimes to remove barriers to food intake and encourage intake

in **some** hospitals

- Weights taken on admission
- Regular weekly weights
- More food available for patients on the unit
- Discharge planning

Funding: Canadian Frailty Network (2015-2017)

Keller et al. BMC Nutr 2017

Screening on Admission

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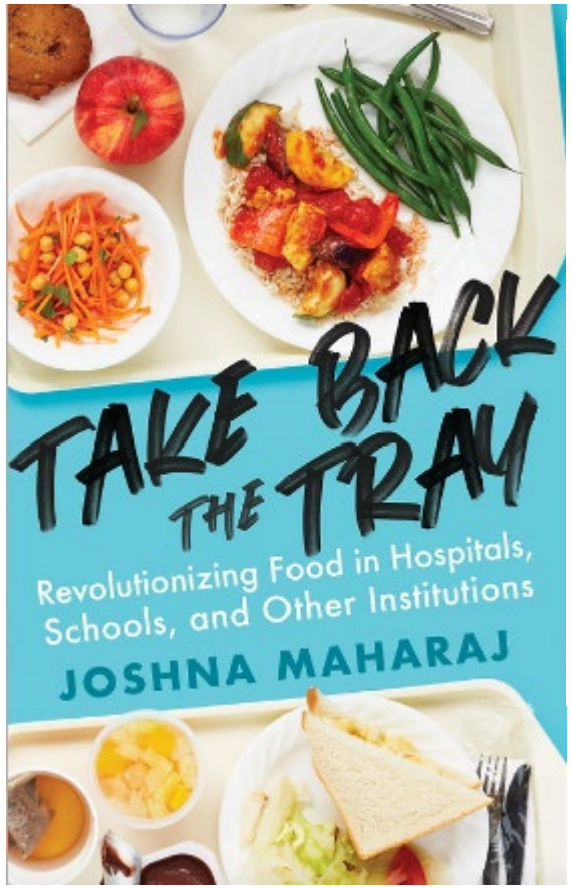
QUESTIONS	YES	NO	PATIENT'S RESPONSE AND INTERVIEWER'S COMMENTS
Malnutrition Screening Two 'YES' answers, consult dietitian. Date:		✓	Have you lost weight in the past 6 months without trying to lose this weight? ☐ YES ☑ NO (If a patient reports a weight loss but gained it back, consider it as 'NO' weight loss). Have you been eating less than usual for more than a week? ☐ YES ☑ NO

What's Working?

What can be done?



The Current

Hospital food has a bad reputation. A chef reimagined it — with a focus on healing

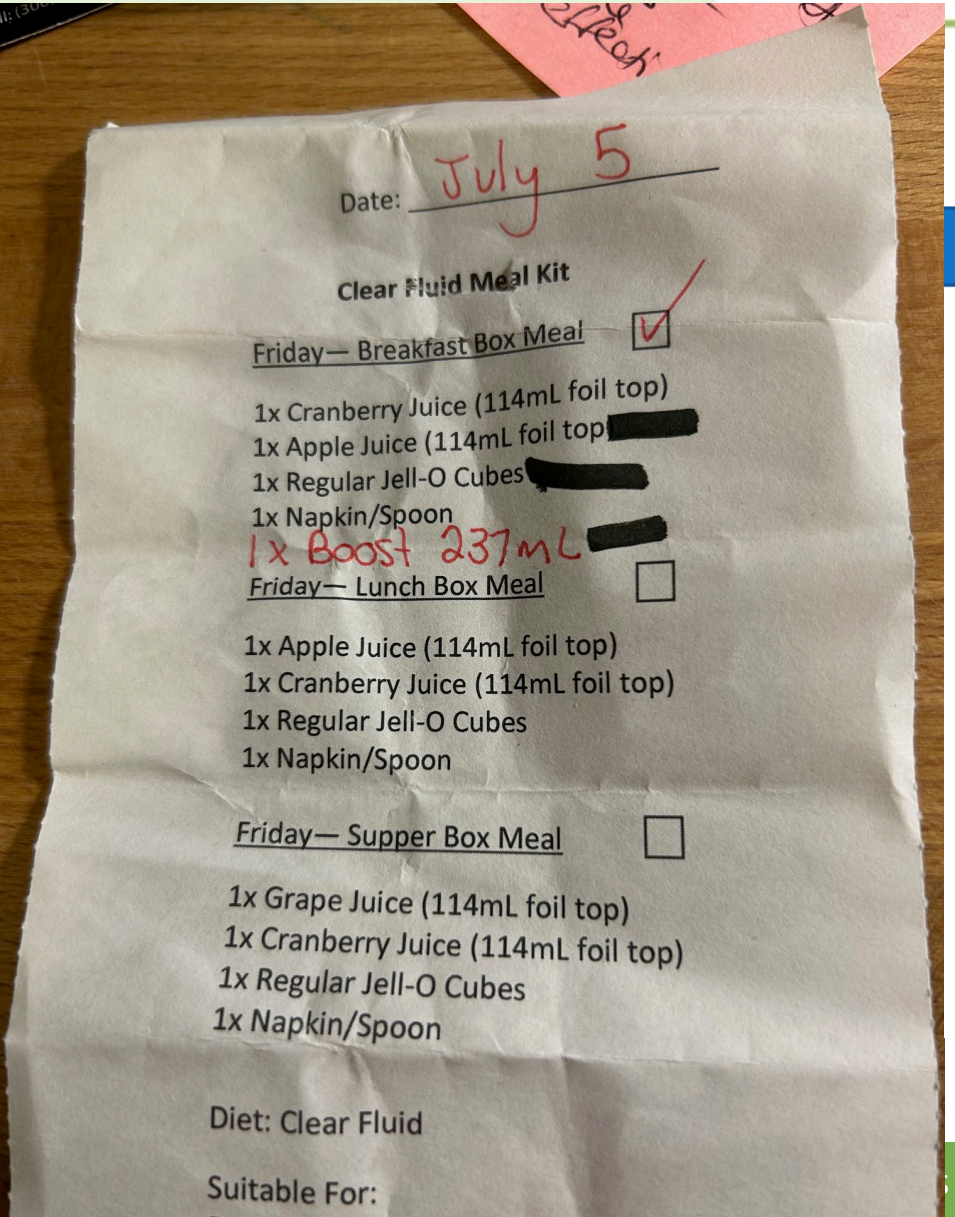
Vancouver hospital pilot project introduced more than 20 new meals aimed at getting patients to eat

CBC Radio · Posted: May 17, 2024 2:57 PM CST | Last Updated: May 17

This Korean gochujang bowl is one of more than 20 meals created by celebrity chef Ned Bell for Vancouver General Hospital's Planetary Health Menu Pilot Project. Project co-lead Dr. Annie Lalande says that patients reacted positively to the dishes. (Leila Kwok/Vancouver Coastal Health)

- Culturally appropriate food
- Vancouver Hospital +++
- Nourish Cohort

Tray Ticket



Date: July 5

Clear Fluid Meal Kit

Friday— Breakfast Box Meal ☑

1x Cranberry Juice (114mL foil top)
1x Apple Juice (114mL foil top)
1x Regular Jell-O Cubes
1x Napkin/Spoon
1x Boost 237mL

Friday— Lunch Box Meal ☐

1x Apple Juice (114mL foil top)
1x Cranberry Juice (114mL foil top)
1x Regular Jell-O Cubes
1x Napkin/Spoon

Friday— Supper Box Meal ☐

1x Grape Juice (114mL foil top)
1x Cranberry Juice (114mL foil top)
1x Regular Jell-O Cubes
1x Napkin/Spoon

Diet: Clear Fluid

Suitable For:

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Enhanced Recovery After Surgery (ERAS)

Surgery SCN

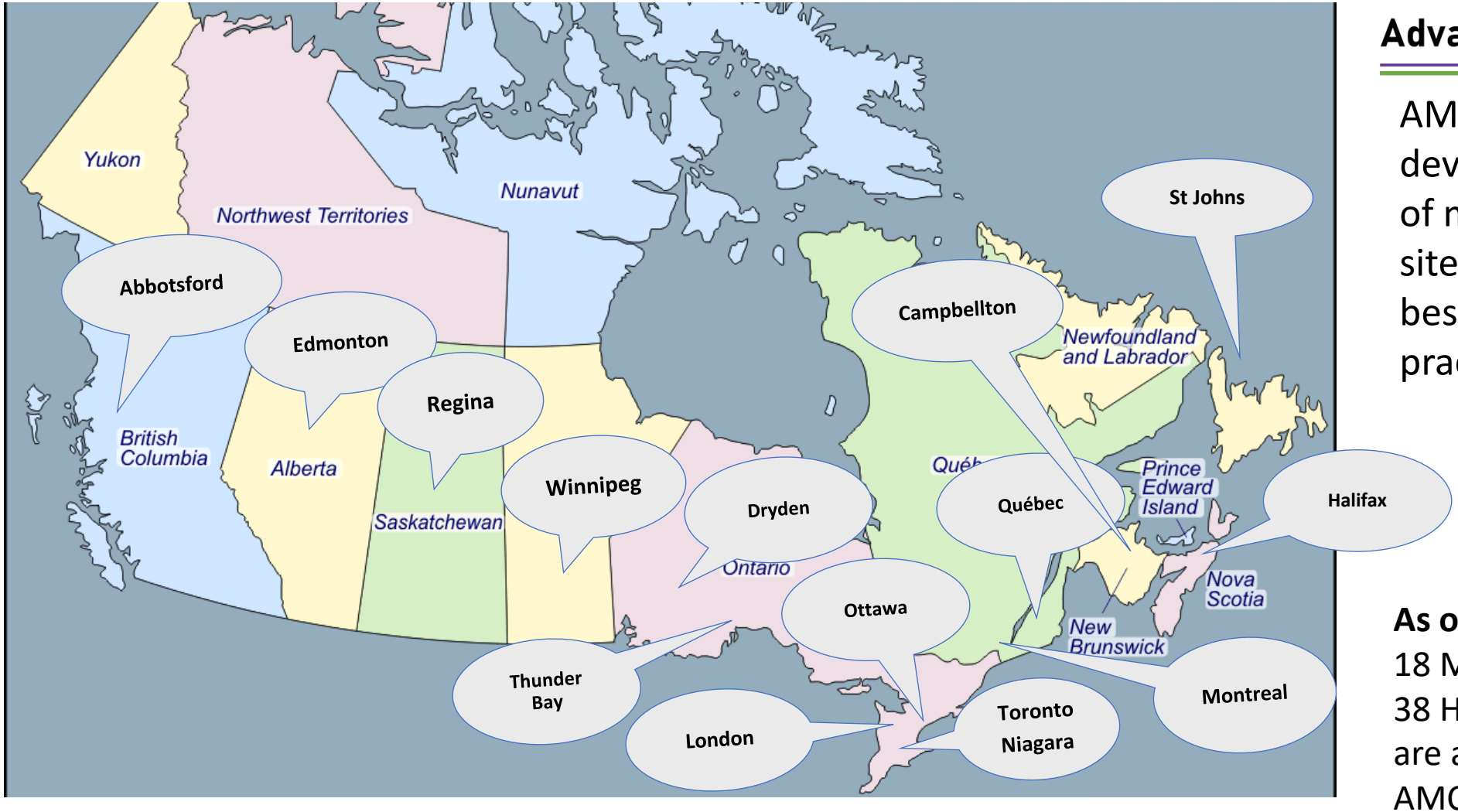
What is ERAS?

Enhanced Recovery After Surgery (ERAS) standardizes care before, during and after surgery. ERAS helps patients get back on their feet quicker while shortening hospital stays and reducing surgical complications. The implementation of ERAS in Alberta is sponsored by the Surgery Strategic Clinical Network (Surgery SCN™).

Each year, more than 280,000 surgeries are performed across Alberta at 55 surgical sites. The Surgery SCN is dedicated to making surgical care in our province efficient and sustainable.

Drawing from best practices and evidence from around the world, ERAS improves patient care related to nutrition, mobility after surgery, fluid management, anesthesia and pain control. ERAS also makes patients part of the team by involving them in preparation for their surgery and post-operative recovery. It aims to help patients stay strong, improve outcomes, reduce complications and create a better patient experience.

Implementation of Best Practices



Advancing Malnutrition Care

AMC is assisting with the development and training of mentors and hospital site champions, to adopt best nutrition care practices

As of Sept 2023
18 Mentors
38 Hospital Champions
are actively participating in AMC

What are *your* key priorities?

- Shorter length of stay?
- Better outcomes?
- Fewer re-admissions?
- Fewer complications?

Discussion

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What most caught your attention or was new for you (so far)?

Looking at Challenges, Ideating on Solutions

Building on Learnings to-Date

- Hosting Health Professionals Round Table on Strategy – November/23 and April/24
- Advice from leaders from across Canada
- **Next Exercise will allow us to listen to and learn from your perspectives, while building on that work**

We asked….

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Canadian Nutrition Society / Société canadienne de nutrition

How can CMTF get the “right information” into the “right hands”?

And we heard…

- Nutrition-based **data** should be **“front and centre”**
- Express data in the context of **“the known.”** *For example*: how does Malnutrition impact LOS or ALC? What are the associated costs?
- Add value by connecting malnutrition to known quality/safety indicators. *For example:* How does Malnutrition impact falls or wound care? What are the associated costs?

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For Today:

- How can we create **BETTER AWARENESS** of malnutrition in healthcare?

We asked….

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What are the barriers to action? Why are leaders not aware of Malnutrition?

And we heard…

- Nutrition-based data **does not often "bubble up" to the corporate reporting/scorecard**
- **Most organizations** do not connect nutrition-based (or Malnutrition-based) data to Length of Stay, ALC, etc.
- Many organizations **outsource food services** – difficult to make changes to contracts

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For Today:

- How can we overcome these **BARRIERS?**

We asked….

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With whom should CMTF connect?

And we heard…

- **Utilize community-based organizations** who serve populations at risk of malnourishment
  - **Community-based organizations** e.g. Faith-based groups and community service agencies
  - **Hospital-based**
    - **Leverage hospital-based quality and risk resources** to formalize risk profiling and screening
    - **Engage with hospital-based** Patient and Family Advisory Councils to connect Malnutrition to the patient experience

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    - **Engage with hospital-based** Patient and Family Advisory Councils to connect Malnutrition to the patient experience

For Today:

What is your best advice when speaking with Government?

Small Groups

- **Tables 1-2:** How can we create **BETTER AWARENESS** of malnutrition in healthcare?
- **Tables 3-4:** How can we **OVERCOME** these barriers?
- **Tables 5-6: BEST ADVICE** when speaking with Government?

Results of Small Group Discussion

Thank you!