# Instructions for the Integrated Nutrition Pathway for Acute Care (INPAC)

The INPAC is an evidence-based algorithm for the detection, treatment and monitoring of malnutrition amongst acute care medical and surgical patients. Consensus from leading Canadian experts, clinicians and other stakeholders resulted in the algorithm. This pathway should not be applied to conditions other than malnutrition.

This pathway is focused on the nutrition care of hospitalized patients. This algorithm is a **minimum** standard and if a hospital or unit provides care above this minimum, they are encouraged to continue their high quality practice. INPAC recommends key disciplines taking the lead with specific care activities, but this does not mean that other disciplines cannot take on these roles as well.

This is an 'integrated' pathway as it requires the involvement of the **whole** healthcare team, as well as the patient and their family in supporting nutrition care in and post hospitalization. It is recommended that each hospital establish an interdisciplinary team and champions to promote a change of culture required to implement the INPAC.

## NUTRITION SCREENING AT ADMISSION

**Admitting nurse completes the Canadian Nutrition Screening Tool (CNST):**
**1.** Have you lost weight in the past 6 months WITHOUT TRYING to lose this weight?
**2.** Have you been eating less than usual FOR MORE THAN A WEEK?

- The Canadian Nutrition Screening Tool (CNST) is recommended as it is valid, reliable, and quick and easy to use in practice.
- Nursing is often the first discipline to complete their assessment of a patient and these two screening questions can be easily embedded into their current assessment tools.
- Others who interact with the patient within a few hours of admission (e.g. physician, diet technician) could also complete the nutrition screening.
- Page 2 of INPAC includes some situations where screening is not feasible (e.g. patient cannot answer questions) or where risk factors are present that would require additional steps in the pathway to be completed to determine if the patient requires a comprehensive assessment by a dietitian (e.g. patient requires nutrition support, transfer from intensive care etc.). In these instances, patients would be treated as 'at risk' and follow that particular path on INPAC. Once patients enter the algorithm (INPAC) for care, the patient does not need to be re-screened after a week since they will be monitored by their food intake. Their food intake will denote which part of the pathway they will follow.

**Patients NOT AT nutrition risk:**
**Level A Standard Nutrition Care path**

**Level A: Standard Nutrition Care**

- This is a minimum Standard Nutrition Care provided to **ALL** patients.
- This Standard Nutrition Care promotes food intake and monitoring of the patient so that challenges to food consumption can be identified readily and treated.
- Page 2 of INPAC lists a variety of practices to support food intake.
- Current hospital best practices or protocols are to be used to identify barriers to food intake (e.g. aids needed to help with eating, difficulty self-feeding, swallowing assessment for dysphagia).
- Patient care teams are encouraged to collaborate to identify and address barriers and to optimize intake for all patients e.g. minimizing interruptions during mealtime.
- Monitoring is essential to ensure that adequate food intake occurs and iatrogenic malnutrition does not develop.
- Frequent monitoring of food intake is essential.
- To support frequent monitoring of food intake, CMTF has created a simple self-administered meal intake assessment tool. It is recommended that this be completed twice per week for a single meal.
- Health care aides, porters, dietary aides and other personnel involved with the meal in any way can support this monitoring if the patient or family is unable to complete the form.
- Nursing monitoring tools, the nutritionDay® food intake form or other brief tools can also be used to monitor food intake.
- Food intake less than 50% of the meal was shown in the Nutrition Care in Canadian Hospitals study conducted by the CMTF to predict and extend length of stay, even in well-nourished patients. Thus, food intake of < 50% at a single meal warrants moving a patient up to Level B: Advanced Nutrition Care procedures.
- It is also recommended that the patient's body weight be taken at least once a week.
- Patients who are NPO or on clear fluids (continuously or intermittently) for > 3 days should be assessed using subjective global assessment (SGA) to determine their nutritional status.

## Patients AT Nutrition Risk: Diagnose with Subjective Global Assessment

**Subjective Global Assessment (SGA)**

- Patients identified to be at nutrition risk require a diagnosis to confirm malnutrition. If malnutrition is confirmed, they should receive Advanced or Specialized nutrition care. SGA is recommended for making a diagnosis and triaging further nutrition care.
- Dietitians or other trained professionals can conduct SGA.
- SGA is to be completed within 24 hours of being screened 'at risk'. If the patient is admitted and screened at risk over the weekend, Level B Advanced Nutrition Care procedures can be instituted with an SGA completed at the earliest opportunity to confirm malnutrition.
- If the patient is not diagnosed with malnutrition (e.g. SGA A), the Level A: Standard Nutrition Care path is followed.
- If the patient is mildly or moderately malnourished (SGA B) they require Level B: Advanced Nutrition Care.
- If the patient is severely malnourished (SGA C) they require Level C: Specialized Nutrition Care.

## When a patient requires Level B: Advanced Nutrition Care

**Level B: Advanced Nutrition Care**

- Advanced Nutrition Care procedures should be implemented at the next meal for these patients. The objective of this care is to provide more nutrient dense food to patients at meals and between meals to optimize oral intake.
- A variety of activities can be undertaken to improve intake. For example, higher energy and protein food offerings can be provided at and between meals, small amounts of oral nutritional supplements (e.g. 60 mL) can be provided at each medication round to ensure that more calories and protein are consumed.
- Level A: Standard Nutrition Care procedures are still provided to these patients.
- Assess barriers to food intake. Additional barriers to food intake may need to be investigated, such as determining if the patient is getting their food preferences.
- Monitoring of food intake should be more frequent than for Level A: Standard Nutrition Care patients and it is recommended to be at minimum one meal per day.
- If overall food intake (meals, snacks, supplements) is <50% of what is provided for three days consecutively, a dietitian referral is made to deliver Level C: Specialized Nutrition Care.

## When a patient requires Level C: Specialized Nutrition Care

**Level C: Specialized Nutrition Care**

- A comprehensive dietitian assessment is the basis for Level C: Specialized Nutrition Care. This should occur within 24 hours of completion of the SGA.
- A comprehensive assessment may include additional physical examination, anthropometry, dietary, clinical and biochemical markers specific to the condition and patient population, as well as evaluation of swallowing function and eating capacity when required.
- Additional barriers to food intake may need to be investigated
- Treatment is typically specialized and requires an individualized nutritional care plan. Enteral or parenteral nutrition or other treatments that are not provided as part of Level B: Advanced Nutrition Care are required to meet the nutrition needs of patients.
- Collaboration with the patient/family and health care team to improve intake is essential.
- Monitoring is individualized and may include biochemistry, frequent body weights, and anthropometry/body composition, as well as more detailed records of food and fluid intake.
- A patient can be returned to Level B: Advanced Nutrition Care if their intake is significantly improved and the current diet prescription meets their needs.

## At Discharge: All patients receiving Level B or C Nutrition Care

**Post-Discharge Nutrition Care**

- Patients who are identified to be malnourished (SGA B or C) and who do not fully recover their nutritional status during their admission require ongoing care in the community.
- Provide referral for ongoing nutritional treatment by a dietitian when rehabilitation of nutritional status is on-going.
- Educate the patient and family on key community resources that can support access to food (e.g. meal programs).
- Educate the patient and family on key aspects of their nutrition care plan to support continued recovery in the community.
- Provide details for patients and primary caregivers and other practitioners involved in post-discharge care about the patient's nutritional status (e.g. SGA rating, body weight) and treatment provided during hospitalization as well as recommendations for continuing this care.

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