Background, Problem and Aim Statement:

Malnutrition is highly prevalent among inpatients in Canadian hospitals, with up to 45% patients on medical and surgical wards found to be malnourished based on subjective global assessment (SGA) criteria. Unfortunately, less than 23% of patients found to be malnourished go on to receive a registered dietician (RD) consult. Recently, the Canadian Malnutrition Task Force (CMTF) developed the Canadian Nutrition Screening Tool (CNST) specifically to screen for patients at risk of malnutrition on admission to hospitals. As malnutrition has been associated with many clinical outcomes of increased length of stay, morbidity and mortality, early identification and intervention is critical.

Problem Statements:
• Currently there is no standardized method of identifying patients on medicine units who may be at risk of malnutrition. This results in a significant proportion of at-risk patients not being identified or have a significant delay in referral to a RD.

Aim Statements:
1. By 30 September 2018, to have the CNST completed on 100% of inpatients admitted to the general internal medicine (GIM) units (SD2, SD3, SD4)
2. By 30 September 2018, to have the cycle time from patient admission until registered dietician (RD) assessment to be reduced by 11 days (from 14 days to 1 day).
3. By 30 September 2018, to have more than 80% of RD consults be “appropriate”

Process Assessment:
Current state process mapping was conducted by two members of the project team. A current state map was created to identify potential areas of improvement.
• Patients currently admitted to the GIM units do not regularly receive nutrition screening
• Unless otherwise identified, patients do not receive standardized RD assessment until day 14 of their admission, where an automatic RD consult is prompted

Benchmarking was conducted at St. Mary’s Hospital in Camrose, Alberta where admission questionnaires include the CNST to be completed by patient/nurse/family

Collaborations & Communication Strategies:
• Project team included two internal medicine residents, a RD, a quality improvement consultant, and a medical student
• The team met regularly to discuss implementation strategies.
• The RD connected with unit clerks on GIM units to receive buy-in for placement of CNST stickers.
• The residents and RD informed and educated the medical team on GIM units regarding the project and use of the CNST.
• An information poster was created and posted on all three units.

Improvement Selection:

<table>
<thead>
<tr>
<th>Steps/Phases</th>
<th>Interventions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline</td>
<td>- No screening tool for nutrition; CNST not present</td>
</tr>
<tr>
<td></td>
<td>Appropriate RD Consults: 82.3% (n = 17)</td>
</tr>
<tr>
<td></td>
<td>RD Cycle Time (Days from admission to assessment) Average: 9.86</td>
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</tbody>
</table>

Phase I (PDSA 1)
11 July 2018 – 31 July 2018
- Implement original label on first progress note
- Process measure: CNST compliance
- Appropriate RD consults
- Outcome measure: RD cycle time

<table>
<thead>
<tr>
<th>CANADIAN NUTRITION SCREENING TOOL</th>
<th>Date:</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have you lost weight in the past 6 months?</td>
<td></td>
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<tr>
<td>Is your weight less than 30 kg?</td>
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<tr>
<td>Have you been eating less than usual FOR MORE THAN A WEEK?</td>
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<td></td>
<td>Two “YES” answers indicate nutrition risk – RD consultation</td>
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</table>

| Appropriate RD Consults: 100% (n = 19) |
| RD Cycle Time (Days from admission to assessment) Average = 3.94 |

Phase II (PDSA 2)
1 August –
- Implement new label on first progress note
- Process measure: CNST compliance
- Appropriate RD consults
- Outcome measure: RD cycle time

| Appropriate RD Consults: 100% (n = 4) |
| RD Cycle Time (Days from admission to assessment) Average = 2.76 |

Reinforce Ownership, Measurement & Continuous Improvement:
PDSA #3:
To increase CNST completion rates, we will plan to expand the use of the CNST to nursing teams as part of patients initial nursing care packages.
To maintain the screening of patients, we have confirmed the CNST will be included in the upcoming EHR ConnectCare.

Lessons learned:
1. The CNST effectively reduces cycle time to appropriate RD consults for patients who are identified as malnourished
2. Utilizing the CNST results in no increase in inappropriate RD consults
3. A major barrier of this project was change management. Further strategies to increase completion rates should be investigated including:
   - Effectively educating the constantly-rotating medical staff on the use of the CNST
   - Incorporating other members of the health-care team to increase completion rates

Why this Quality Improvement matters
To Patients
Less time spent in hospitals and more time at home
To Albertans
Reduced strain to the system and improvement of care
To the healthcare system
Reduced healthcare expenditure