## Title

### Procedure: Mini Nutritional Assessment (MNA) Tool Screening

### Background
- The MNA full form was developed in 1994 as a screening tool for the rapid assessment of malnutrition and risk for malnutrition in the elderly (those aged 65 years and older). This valid/reliable tool consists of 18 questions and classified people as ‘malnourished’, ‘at risk of malnutrition’, and ‘well nourished’.
- In 2001, the MNA short form (MNA-SF) was created, consisting of six questions, classifying persons as either ‘well nourished’ or ‘possibility of malnutrition’.
- A revision of the MNA-SF in 2009 changed the classifications of the previous short form, to be ‘malnourished’, ‘at risk of malnutrition’, and ‘well nourished’. In addition, the tool added the option of using calf circumference to assess nutrition when body mass index (BMI) information is not available.
- Studies have shown high levels of association and agreement between the MNA-SF and the MNA full form.
- Persons who are malnourished tend to have longer hospital stays, greater complications, and greater risk of morbidity and mortality.
- Identifying person who are malnourished or at risk for malnourishment can allow health care providers to implement interventions earlier to improve nutrition and outcomes.
- The modified MNA-SF takes no special training to use and less than four minutes to complete.
- The tool should be used in hospital, community, and long term care settings at regular intervals to detect malnutrition or risk of it, i.e. at admission, quarterly, and when the person’s general health status changes.

### Indications
This procedure is intended to be used by front line registered health care providers, to assist with their assessment and management of individuals 65 year of age or older presenting with wounds/skin ulcers.

### Procedure
**NOTE:** The use of the Mini Nutritional Assessment (MNA) Tool is but one part of the holistic assessment of individuals 65 years of age or older presenting with or at risk for a wound/skin ulcer.

#### Assessment
1. Determine the need to perform the MNA-SF based on the person’s diagnoses and history.
2. Assess the person for usual body weight, noting changes over the last three months.
**Planning**

1. **Expected outcomes:**
   a. The person denies any decrease in food intake, weight loss, acute psychological stress and disease in the past three months, and has a normal BMI or calf circumference
   b. The person does not suffer from depression or dementia and is able to mobilize independently
   c. Assessment, history, and MNA-SF results are consistent with adequate nutritional status

2. **Prepare equipment and supplies**

3. **Explain** to the person the purpose for nutritional assessment (or their power of attorney for personal care should the person not be able to consent) and obtain verbal or implied consent

4. **Perform** the nutritional assessment in a quiet, undistracting environment

5. **Wash your hands**

**Implementation**

1. **Provide privacy**

2. **Obtain** a health history as it pertains to the person’s nutrition and complete the MNA-SF:
   a. Document on the form the person’s name, gender, age, weight (kg), height (cm) and the date of assessment [**NOTE:** it is best to take a weight and height at the time of the assessment – use the same scale/technique in all future assessments for greatest accuracy. Ensure the scale is calibrated and have the person remove heavy shoes/clothing. Measure height without shoes on. If the person cannot stand, measure height by measuring demi-span, arm span, or knee height (for information on alternative height measurements and the measurement of BMIs in amputees, see “The Guide to Completing the Mini Nutritional Assessment - Short Form (MNA SF)” found on this site or at: http://www.mna-elderly.com/forms/mna_guide_english_sf.pdf]
   b. Pose questions to the person (or their power of attorney for personal care) to elicit responses to the six screening questions
   c. Choose the number that corresponds with the person’s response and insert that score into the box at the right side of the question
   d. To determine the person’s BMI: \( \text{BMI} = \frac{\text{weight (kg)}}{\text{height (m)}^2} \)
      
      **NOTE:** as per Health Canada, the following are BMI categories:
### Classification of BMI

<table>
<thead>
<tr>
<th>Classification</th>
<th>BMI</th>
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<tbody>
<tr>
<td>Underweight</td>
<td>&lt;18.5</td>
</tr>
<tr>
<td>Normal Weight</td>
<td>18.5 - 24.9</td>
</tr>
<tr>
<td>Overweight</td>
<td>25.0 - 29.9</td>
</tr>
<tr>
<td>Obese (Class I)</td>
<td>30.0 - 34.9</td>
</tr>
<tr>
<td>Obese (Class II)</td>
<td>35.0 - 39.9</td>
</tr>
<tr>
<td>Obese (Class III)</td>
<td>&gt;=40.0</td>
</tr>
</tbody>
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e. To determine the person’s calf circumference in centimeters, measure the widest part of the calf with the person standing or sitting. **NOTE: the tape must be at a right angle to the calf for accurate measurement.** To measure the calf circumference of a bedbound person, with the person supine, have the person bend their knee at 90 degrees and measure the widest part of the calf.

f. Total the individual screening question scores to determine the person’s total screening score (max 14 points):
   i. 12-14 points = normal nutritional status
   ii. 8-11 points = at risk for malnutrition
   iii. 0-7 points = malnourished

3. Clean reusable equipment/surfaces touched during the procedure with warm soapy water or antimicrobial wipes and dry thoroughly to prevent cross contamination.

4. Wash your hands.

5. Complete documentation as required, i.e.:
   a. Document the person’s anthropometric data and MNA-SF score.
   b. Determine and chart the person’s nutritional status based on their MNA-SF score.

### Evaluation

1. Review history and MNA-SF findings. Note areas of concern.
2. Compare the person’s weight and height with ideal and usual weight.
3. Review anthropometric data against normal measurements and report any unusual findings to the family physician or primary care nurse practitioner.
   a. “Normal nutritional status” - rescreen quarterly and when there is a significant change in health.
   b. “At Risk of Malnutrition” with no weight loss - monitor weight closely and rescreen quarterly and when there is a significant change in health.
   c. “At Risk of Malnutrition” with weight loss – refer to a registered dietician for further in-depth nutritional assessment and consideration of nutritional supplementation.
and diet enhancement

d. “Malnourished” refer to a registered dietician for further in-depth nutritional assessment and consideration of nutritional supplementation and diet enhancement

5 Unexpected outcomes:

a. The person reports a decrease in food intake, weight loss, acute psychological stress and disease in the past three months, and has an abnormal BMI or calf circumference
b. The person suffers from depression or dementia and is unable to mobilize independently
c. Assessment, history, and MNA-SF results are consistent with inadequate nutritional status
d. The MNA-SF is not completed according to this Procedure +/or appropriate interventions are not put into place

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Additional Notes

- The MNA-SF is available as a free I-Phone and I-Pad application in English and French (see: https://itunes.apple.com/us/app/mna/id389361779?mt=8)
- The MNA-SF is available in 30 languages on the following site: http://www.mna-elderly.com/mna_forms.html
- The MNA video demonstrates step-by-step directions for using the MNA® in clinical practice to identify malnutrition in the elderly. The video includes alternate ways to measure height using demi-span, arm span, or knee height and how to measure calf circumference for patients when height and weight are not available. This video can be found at: http://www.mna-elderly.com/user_guide.html

| References | 3 | Kagansky N, Berner Y, Koren-Morag N, et al. Poor nutritional habits are predictors of poor outcomes in very old hospitalized patients. Am |
**Related Tools**

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<thead>
<tr>
<th>NOTE: these tools and their instructions can be found on the SWRWCP’s website: swrwoundcareprogram.ca</th>
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<tr>
<td>• The Guide to Completing the Mini Nutritional Assessment - Short Form (MNA SF)</td>
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