Developed in collaboration with the Wound Care Champions, Wound Care Specialists, Enterostomal Nurses, and South West Regional Wound Care Program (SWRWCP) members from Long Term Care Homes, Hospitals, and South West Community Care Access Centre contracted Community Nursing Agencies in the South West Local Health Integration Network.	
Title	**Procedure: Mini Nutritional Assessment (MNA®) Tool**
Background	• People who are malnourished tend to have longer hospital stays, greater complications, and greater risk of morbidity and mortality[3] • Identifying person who are malnourished or at risk for malnourishment can allow health care providers the opportunity to implement interventions earlier to improve nutrition and outcomes • 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 classifies people as 'malnourished', 'at risk of malnutrition', and 'well nourished'[1] • In 2001, the MNA® short form (MNA-SF®) was created and further revised in 2009, consisting of only six questions with the same classification categories. The option of using calf circumference to assess nutrition when body mass index (BMI) information is not available, was also added[2] • Studies have shown high levels of association and agreement between the MNA-SF and the MNA® full form[2] • 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 **Copyright Restrictions** The MNA-SF® is protected by copyright laws and MNA® is also a registered trademark of Société des Produits Nestlé S.A. The MNA-SF® must be downloaded in it's the original form. You are not entitled to modify at all the external appearance of the form nor the order of the questions. In addition, all references and logos may not be altered in any way nor removed. In case of a doubt concerning your planned use of the MNA-SF®; please **click here** to contact developers directly. The MNA-SF® may be incorporated into the electronic health record provided users comply with all copyright and trademark requirements. Please contact **info@mna-elderly.com** for more information. **NOTE: The SWRWCP obtained permission to use the MNA-SF® and its user guide on its website.** **Additional Notes** 1 The MNA-SF® is available as a free I-Phone and I-Pad application in

<table>
<tr><td></td><td>English and French (see: https://itunes.apple.com/us/app/mna/id389361779?mt=8)
2 The MNA-SF® is available in 30 languages on the following site: http://www.mna-elderly.com/mna_forms.html
3 The MNA-SF® video demonstrates step-by-step directions for using the MNA-SF® 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</td></tr>
<tr><td>Indications</td><td>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 admitted with or presenting with a wound.</td></tr>
<tr><td>Procedure</td><td>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 admitted or presenting with a wound.

Assessment
1 Determine the need to perform the MNA-SF® based on the person's diagnoses and history
2 Thoroughly review the person's available medical records and add appropriate information to the MNA-SF® regarding the following:
a. Appetite and food intake
b. Most recent body weight and height and any record of weight loss
c. Mobility status
d. Any documentation of acute illness and/or stress
e. Diagnosis/documentation of cognitive/psychological illnesses/problems
f. Body mass index (BMI). If the BMI is unavailable, it can be calculated by using the following formula: BMI = weight (kg)/height (m^2) NOTE: as per Health Canada, the following are recognized BMI categories:
<table>
<tr><th>Classification</th><th>BMI</th></tr>
<tr><td>Underweight</td><td><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>>=40.0</td></tr>
</table>
Planning
1 Expected outcomes:
a. Information from the person's chart, the person and/or their substitute decision maker (SDM)/power of attorney for personal care (POA C) and your assessment will allow for completion of the MNA-SF®
b. The information obtained in the MNA-SF® will allow for:</td></tr>
</table>

	i. The identification of any factors affecting the person's nutritional status ii. Classification of the person's nutritional state c. Registered nursing staff, in collaboration with other involved health care disciplines and the person with the wound or their SDM/POA C (if applicable), will be able to use the assessment information to initiate/modify and implement an interdisciplinary, person-centered plan of care which contains clear directions to staff and others who are providing the person with direct care 2 Prepare any required equipment and supplies, i.e. measuring tape, weigh scale, etc. 3 Explain the procedure and purpose of the assessment to the person and/or their SDM/POA C and obtain verbal or implied consent **Implementation** 1 Provide for privacy 2 Wash your hands 3 Following the order of the MNA-SF®, ask the person and/or their SDM/POA C questions to elicit responses to the identified items. Specific instructions: a. Before beginning the assessment ensure that the person's name and gender and the date of the assessment are documented in the assigned areas b. Weight/height: i. Input the person's weight (Lbs.). **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** ii. Measure the person's height, without shoes on. **NOTE: If the person cannot stand, obtain a 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®" found on this site or at: http://www.mna-elderly.com/forms/mna_guide_english_sf.pdf)** iii. If not previously done, determine the person's BMI: BMI = weight (kg)/height (m^2) iv. If you are unable to get a weight from the person for any reason, determine the person's calf circumference (cm). To do this, 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

c. Ask questions/confirm information retrieved from the person's medical records re any decrease in food intake, weight loss over the past three months, mobility, and dementia or depression. Score the individual screening questions by choosing the most appropriate responses
d. Total the individual screening question scores to determine the person's total MNA-SF® score (max 14 points):
    i. 12-14 points = normal nutritional status
    ii. 8-11 points = at risk for malnutrition
    iii. 0-7 points = malnourished

4 Clean reusable equipment/surfaces touched during the procedure with warm soapy water or antimicrobial wipes and dry thoroughly to prevent cross contamination, returning any reusable equipment to the appropriate places
5 Wash your hands
6 Discuss your findings and the implications of the findings with the person and/or their SDM/POA C
7 Share the results of your assessment with the interdisciplinary members of the person's wound care team
8 Complete documentation as required, i.e.:
    a. Document the persons anthropometric data and MNA-SF® score on the designated forms according to your organization's policy
    b. Store the completed MNA-SF® in the person's medical chart for future reference
    c. Complete/update and implement an appropriate, person-centered, interdisciplinary plan of care, as per your organization's policy, based on the person's MNA-SF® score and your holistic assessment

Evaluation

1 Unexpected outcomes:
    a. You are unable to obtain enough information from the person's chart, the person or their SDM/POA C, and from your assessment to properly complete the MNA-SF®
    b. Registered nursing staff, in collaboration with other involved health care disciplines and the person with the wound or their SDM/POA C, are unable to use the assessment information to develop/modify and implement an appropriate, person-centered, interdisciplinary plan of care
    c. The MNA-SF® is not completed according to this procedure

	and/or appropriate interventions are not put into place 2 Interventions (**NOTE: see MNA-SF® Recommendations for Interventions at http://www.mna-elderly.com/interventions.html)** : 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 3 Re-assess the person's nutritional status using the MNA-SF® quarterly and when there is a significant change in the person's health status
References	1 Guigoz Y, Vellas B, Garry PJ. Mini Nutritional Assessment®: A practical assessment tool for grading the nutritional state of elderly patients. Facts Res Gerontol. 1994;4(suppl 2): 15-59. 2 Garcia-Meseguer MJ, Serrano-Urrea R. Validation of the revised mini nutritional assessment short-forms in nursing homes in Spain. The Journal of Nutrition, Health & Aging. 2013;17(1):26-29. 3 Kagansky N, Berner Y, Koren-Morag N, et al. Poor nutritional habits are predictors of poor outcomes in very old hospitalized patients. Am J Clin Nutr. 2005;82:784-791).
Related Tools (NOTE: these tools and their instructions can be found on the SWRWCP's website: swrwoundcareprogram.ca)	• Mini Nutritional Assessment (MNA®) Tool • The Guide to Completing the Mini Nutritional Assessment - Short Form (MNA-SF®)