Identifying Geriatric Malnutrition in Nursing Practice

The Mini Nutritional Assessment (MNA®)—An Evidence-Based Screening Tool

ABSTRACT

Protein calorie malnutrition (PCM) is common and often undiagnosed in older adults. Left untreated, PCM carries both clinical and financial risks, including decreased quality of life, declining functionality, the inability to live independently, and increased health care costs. The prevalence of PCM in older adults calls for a systematic and standardized approach to nutrition screening that includes the use of a validated screening tool. Recommended by international organizations, the Mini Nutritional Assessment® (MNA) is highly specific and reliable and the most well-validated nutrition screening tool for adults 65 and older. Simple, noninvasive, inexpensive, and easy for nurses and other clinicians to use, the newest MNA-short form (MNA-SF) can quickly and easily identify older adults who are at risk for malnutrition or malnourished. Nurses are key players in successful malnutrition screening in hospitals, long-term care, home care, and community settings. It is strongly recommended that nurses incorporate the newest MNA-SF into all practice settings where older adults receive care.

Older adults are the single largest demographic group at disproportionate risk for inadequate dietary intake and protein calorie malnutrition (PCM). PCM is frequently underdiagnosed and, left untreated, can lead to loss of independence, lower quality of life, increased institutionalization, and death. Nutrition is vital for older adults to successfully maintain functional status, independence, and quality of life, but as they age, many adults face failing health, chronic diseases, or other physiological or psychosocial changes that can lead to undernutrition (Gariballa, 2004).

Effective nutrition screening can identify those older adults who are at risk for PCM and is the first step in maintaining or restoring nutrition status and optimizing independent function. Early identification of undernutrition is critical so intervention can be started promptly when it is needed.

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most effective. This article provides a brief overview of the problem of PCM in older adults and highlights the Mini Nutritional Assessment® (MNA®), a validated tool to detect PCM in adults 65 and older, and the recent changes that make it more user friendly for nurses and others who care for this population. It will discuss opportunities for using the newest version of the MNA in different care settings where nurses are uniquely positioned to identify those older adults with malnutrition or risk for malnutrition so they can receive the intervention needed to optimize quality of life.

WHY SCREEN OLDER ADULTS FOR MALNUTRITION?

Effects of Malnutrition

Aging is associated with physiological and socioeconomic changes that can have a profound effect on nutrition (Table 1). Physiological changes, such as sarcopenia, or loss of muscle mass, and a decline in taste and smell perception with age, are common and may negatively affect meal preparation and food intake. Although older adults are living longer with fewer disabilities, many experience limited activity caused by arthritis and other chronic conditions. Some experience psychosocial changes in finances, transportation, or living arrangements that may lead to social isolation. The combination of age-related physiological and psychosocial change heightens the risk of malnutrition in older adults (Kuczmarski & Weddle, 2005). Compounded by the effects of multiple diseases, age-related changes may make older adults susceptible to undernutrition, which if undiagnosed and left untreated, can progress to malnutrition with its potentially devastating effects.

Without intervention, PCM can result in a downward spiral of increased morbidity and mortality (Mühlethaler, Stuck, Minder, & Frey, 1995). PCM is associated with physical weakness and muscle wasting and frequently leads to falls and fractures. Nearly half of all older patients with hip fractures are malnourished, and severely malnourished patients are more than three times more likely to experience infections (Schneider et al., 2004). Community-dwelling older adults with PCM have decreased functionality in the basic and instrumental activities of daily living (Ödlund Olin, Koochek, Ljungqvist, & Cederholm, 2005) and increased incidence of hip fractures (Salminen, Sääf, Johansson, Ringertz, & Stender, 2006). In the nursing home, PCM is associated with pressure ulcers (Horn et al., 2004), cognitive impairment (Barrett-Connor, Edelstein, Corey-Bloom, & Wiederholt, 1996), and infections (Hudgens, Langkamp-Henken, Stechmiller, Herrlinger-Garcia, & Nieves, 2004). Its presence in hospitalized older patients has been linked to prolonged hospital length of stay (Pichard et al., 2001).
2004), increased in-hospital mortality, and increased complications (e.g., infections, pressure ulcers) (Thomas, Zdrowski, & Wilson, 2002).

Prevalence
Numerous studies have shown that PCM occurs frequently in the older population. Reported prevalence varies: 5% to 20% in community-dwelling older adults, 23% to 85% in nursing home residents, and 32% to 50% in hospitalized geriatric patients (Bauer, Kaiser, & Sieber, 2009; Thomas, 2002). The exact prevalence is unknown due, in part, to a lack of standardized diagnostic criteria and assessment methods. Currently, no gold standard exists to define PCM. Furthermore, the lack of routine and consistent screening for nutrition risk for older adults in settings outside of hospitals and nursing homes—where it is required by the Joint Commission and the Centers for Medicare & Medicaid Services (CMS), respectively—hinders more widespread identification of PCM. However, by any estimate, PCM is common among older adults, and it is underrecognized, underestimated, and undertreated (Elia, Zelli-pour, & Stratton, 2005), even in those settings where screening is required.

According to the Alliance for Aging Research (2007), an estimated 3.7 million older Americans are malnourished. Recent data from a large international pooled dataset shows that the overall prevalence of malnutrition was 23% among older adults (Kaiser et al., 2010). In addition, more than 46% were at risk for malnutrition, so nearly two thirds of older adults were either malnourished or at risk for malnutrition. Prevalence for malnutrition or risk for malnutrition was highest in older adults in rehabilitation facilities (91%), followed by those in hospitals (86%), nursing homes (67%), and living in the community (38%) (Kaiser et al., 2010).

### WHAT IS THE MNA?

The MNA is a nutrition screening tool that was specifically designed and validated to quickly identify PCM in adults 65 and older. Origin-}

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**TABLE 1**

<table>
<thead>
<tr>
<th>Aging-Related Change</th>
<th>Effect on Nutrition*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensory impairment</td>
<td>Reduced appetite</td>
</tr>
<tr>
<td>Decreased sense of taste</td>
<td>Reduced appetite</td>
</tr>
<tr>
<td>Loss of vision and hearing</td>
<td>Decreased ability to purchase and prepare food</td>
</tr>
<tr>
<td>Oral health/dental problems</td>
<td>Difficulty chewing, inflammation, poor-quality diet</td>
</tr>
<tr>
<td>Change in energy needs</td>
<td>Diet lacking in essential nutrients</td>
</tr>
<tr>
<td>Decreased physical activity</td>
<td>Progressive depletion of lean body mass and loss of appetite</td>
</tr>
<tr>
<td>Muscle loss (sarcopenia)</td>
<td>Decreased functional ability; help needed with activities of daily living</td>
</tr>
<tr>
<td>Isolation/depression</td>
<td>Decreased appetite</td>
</tr>
<tr>
<td>Financial constraints</td>
<td>Limited access to food; poor-quality diet</td>
</tr>
</tbody>
</table>

* Represents cumulative effect toward progressive undernutrition.

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*n Note. Adapted from original table on the Mini Nutritional Assessment® website (http://www.mna-elderly.com). Used with permission from Nestlé Nutrition Institute.

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nally developed in the 1990s, it has evolved over time via three steps:

- The original version MNA (hereafter designated as the full MNA, or version 1) with 18 questions in the 1990s.
- The MNA two-step process, which incorporated a short screening form (henceforth called the MNA-SF, or version 2) within the 18-question full MNA, in 2001.
- The revised MNA-short form, a stand-alone screen with the same six MNA-SF questions plus an option when body mass index (BMI) is unavailable, in 2009 (hereafter referred to as the newest MNA-SF, or version 3).

The original full MNA was an 18-item questionnaire developed by practicing geriatricians in the United States and Europe and scientists with the Nestlé Research Center to provide a simple, reliable way to assess nutritional status of adults 65 and older (Guigoz, Vellas, & Garry, 1994). Using a 30-point system, the full MNA classified clients as normally nourished, at risk for malnutrition, or malnourished. It became a vital component of the comprehensive geriatric assessment along with the Mini-Mental State Examination (MMSE), the Geriatric Depression Scale, and the Katz Basic Activities of Daily Living Scale and was well validated in the hospital, community, and long-term care setting (Vellas et al., 1999).

The MNA two-step process (version 2) evolved as a way to save time in the screening process. Rubenstein et al. (2001) derived a short-form version from the full MNA composed of the six questions from the full MNA with the strongest correlation to the full MNA score. The MNA-SF classified clients as either normally nourished or at risk for malnutrition and eliminated the need to complete the full MNA when a person was normally nourished. If the score on the MNA-SF indicated being at risk for malnutrition, the remaining 12 questions of the full MNA were completed to classify malnutrition. After the
introduction of the MNA-SF in 2001, the full MNA became a two-step process, and references to the MNA in research literature and clinical practice were understood to refer to the two-step MNA process (version 2).

However, the need to complete the full 18 questions on the two-step MNA (version 2) when the client was determined to be at risk for malnutrition continued to limit use in clinical practice. Therefore, the MNA-SF was validated as a stand-alone tool in 2009. The revalidation study reaffirmed that the six questions of the MNA-SF correlated highly with the full MNA. Furthermore, the study established three cut-off points for nutritional status that allowed the newest MNA-SF to be used alone to classify clients as malnourished versus at risk for malnutrition versus normally nourished without having to complete the full MNA (Kaiser et al., 2009). This revision shortened screening time to less than 5 minutes. The new form also included an option to substitute calf circumference when BMI is not available, allowing individuals who cannot be weighed or measured to be screened. Since the validation of the newest MNA-SF as a stand-alone screening tool in 2009, references to the MNA-SF in research literature and clinical practice refer to the free-standing, 6-item screening tool (version 3).

Due to its ease of use and validation as a stand-alone tool, the newest MNA-SF is the preferred form of the MNA for clinical use today. However, the two-step MNA (version 2) continues to be used in some research settings; when all 18 questions of the MNA are completed, the MNA is then referred to as the full MNA.

WHAT ARE THE STRENGTHS OF THE NEWEST MNA-SF?
Validity

A major strength of the MNA in all forms is its strong validity (Bauer, Kaiser, Anthony, Guigoz, & Sieber, 2008). In contrast, most nutrition screening tools used in clinical practice have not been validated (Chima, Dietz-Seher, & Kushner-Benson, 2008). Validated tools actually measure what they claim to measure in a specific population; thus, clinicians are more likely to correctly identify clients who truly need help, avoid missing those who need intervention, and begin intervention earlier when the potential for recovery is greater. Validated tools decrease the likelihood that valuable resources will be wasted on those who do not need intervention. They facilitate decision making based on the best available, valid, and relevant evidence.

Quality of Earlier Versions of the MNA

The newest MNA-SF was validated against earlier versions of the MNA, so a brief discussion of the quality of the earlier versions is warranted. The original full MNA was validated in studies with large representative samples of older adults using two principal criteria: comprehensive nutritional assessment—using a battery of anthropometric, dietary, and biochemical indices—and clinical status of nutritional status as determined by two trained physicians. Clinical status was considered the gold standard to determine malnutrition. The full MNA correlated strongly with both the nutrition assessment parameters and clinical status. Even when laboratory tests were excluded, sensitivity and specificity of the full MNA were excellent, as shown in Table 2 (Guigoz et al., 1994; Vellas et al., 1999).

Further validation studies among frail and healthy older adults found that the full MNA agreed with physicians’ ratings of clinical status nearly 90% of the time. The thresholds of the full MNA were established by crosstabulation of the MNA score and se-

<table>
<thead>
<tr>
<th>Version</th>
<th>Sensitivity</th>
<th>Specificity</th>
<th>Positive Predictive Value</th>
<th>Diagnostic Accuracy</th>
<th>Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Original full MNA (version 1)</td>
<td>96%</td>
<td>98%</td>
<td>97%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MNA-short form (version 2)</td>
<td>97.9%</td>
<td>100%</td>
<td>99%</td>
<td>98.7%</td>
<td></td>
</tr>
<tr>
<td>Newest MNA-SF (version 3)</td>
<td>89%</td>
<td>82%</td>
<td>Youden Index = 0.70</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*a Vellas et al. (1999); b Bleda, Bolíbar, Parés, and Salvà (2002); c Rubenstein, Harker, Salvà, Guigoz, and Vellas (2001); d Kaiser et al. (2009).
Figure 1. Newest Mini Nutritional Assessment®-short form (2009 version), reprinted with permission from Nestlé Nutrition Institute.
rum albumin (Guigoz et al., 1994), which is highly prognostic for morbidity and mortality in older adults (Ferguson et al., 1993). Using validated cut-off points of ≥24 for normal nutrition, between 17 and 23.5 for at risk for malnutrition, and <17 for malnutrition, the full MNA correctly classified between 70% and 75% of all healthy and frail participants as normal or malnourished, respectively. The remaining 25% to 30% were identified as at risk for malnutrition and required further assessment (Vellas et al., 2000).

As shown in Table 2, the original full MNA demonstrated good levels of reliability, according to internal consistency and test-retest reproducibility, in clinical evaluations when two nurses independently administered the full MNA on two separate occasions (Bleda, Bolibar, Parés, & Salvà, 2002).

Validity of the MNA-SF (Version 2)

The MNA-SF is composed of six questions from the full MNA, selected based on their correlation with the full MNA score by Pearson correlation ($r = 0.95$), diagnostic accuracy, minimal examination time, and completeness. The sensitivity, specificity, and diagnostic accuracy of the MNA-SF compared favorably to the full MNA in classifying older adults as normally nourished or at risk for malnutrition (Table 2). With a cut-off score of >11 for normal nutrition, the MNA-SF correlated strongly with the total score on the full MNA ($r = 0.945$) (Rubenstein et al., 2001). However, a score on the MNA-SF (version 2) indicating a person is at risk requires the client to complete all 18 questions of the full MNA; therefore, reliability is assumed.

Since the original validation of the full MNA and MNA-SF (version 2), the tool has been used in studies of more than 35,000 older participants in different settings (e.g., community, hospital, home care, outpatient, long-term care) around the world. Summaries of the sensitivity and specificity obtained using the MNA (versions 1 and 2) in various studies can be found elsewhere (Guigoz, 2006).

Validity of the Newest MNA-SF

The newest MNA-SF (Figure 1) was validated against the two-step MNA (version 2) using data from 2,032 study participants from 12

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Figure 2. Algorithm of recommended interventions based on score for newest Mini Nutritional Assessment®-short form, reprinted with permission from Nestlé Nutrition Institute.
large international studies conducted since 2000. To determine the optimal 6-item short form, researchers evaluated all possible combinations of six items from the full MNA. Scores for each version were compared with the corresponding scores for the full MNA from the combined dataset. Details of this analysis are summarized in Table 2 and also reported in Kaiser et al. (2009) and reconfirm that the MNA-SF (version 2) had good overall diagnostic accuracy. Thus, researchers retained the same questions for the newest MNA-SF.

The revalidation study also evaluated the effect of substituting an alternate anthropometric measurement for clients who could not be weighed or measured, such as those who were inmobile or bed bound. Calf circumference was selected because it correlates with sarcopenia and BMI and was found to have the highest ranking for sensitivity in subsequent tests. Detailed analyses indicating good diagnostic accuracy are reported elsewhere (Kaiser et al., 2009).

The newest MNA-SF has clearly defined thresholds that distinguish adequate nutrition status versus malnutrition versus risk for malnutrition. The upper cut-off point (11) was set for optimal sensitivity and the lower cut-off point (8) for optimal specificity. When compared to the classifications of nutritional status by the full MNA, the newest MNA-SF performed well with high percentages of correct classifications of nutrition status and no complete misclassifications when using either BMI or calf circumference, thus confirming the thresholds for the newest MNA-SF are valid (Kaiser et al., 2009).

The revalidation study confirmed the newest MNA-SF is a valid and sensitive nutrition screening tool for malnutrition in older adults and, with the addition of the new cut-off points, it compares well with the full MNA in identifying older patients in a variety of settings who are well nourished, at risk for malnutrition, or malnourished. Although the newest MNA-SF lacks the more extensive history of psychometric testing of the earlier versions of the MNA due to its recent validation, it compared favorably with results from the large database of studies using the full MNA since 2001 (Kaiser et al., 2009).

Population and Setting Specific

The full MNA and the short forms were specifically designed for older adults and, unlike other nutrition screening tools, each version has been validated for adults 65 and older in all settings including the community, long-term care, and acute care (Sieber, 2006). Together, they have been studied more than any other malnutrition screening tool for older adults (Bauer et al., 2008).

Accurate with Acceptable Measurement of Malnutrition

The cut-off point for BMI to define malnutrition is a key determinant of the reported prevalence of malnutrition. All versions of the MNA define the cut-off point for risk of malnutrition as a BMI of less than 22 kg/m², which identifies clinical malnutrition in older adults with acceptable sensitivity and specificity (Ranhoff, Gjøen, & Mowé, 2005). Lower BMI cut-off points for malnutrition are reflective of the general population and are not applicable to the geriatric population (Flicker et al., 2010). The geriatric-specific cut-off point may account for the higher reported prevalence of malnutrition seen with each version of the MNA compared with other screening tools, which is consistent with the higher prevalence of nutrition issues seen in the geriatric versus general adult population.

Practical Strengths of the Newest MNA-SF

In today’s health care environment, screening tests have to be quick and easy to use to be routinely incorporated into busy practice settings. The newest MNA-SF is quick and easy for nurses to complete as part of the admission process in health care institutions. Because it requires no special training, it also works well in many other settings, where nurses, dietitians, case managers, technicians, and other staff may complete the screen in less than 5 minutes.

The newest MNA-SF is widely available for all practice settings at no cost. Because the inclusion of biochemical data did not strengthen the validity of the full MNA in the initial studies (Guigoz et al., 1994), no version requires any invasive laboratory tests. This design makes it easy to incorporate the newest MNA-SF into community and ambulatory care settings, such as assisted living facilities and adult day care programs, where costly biochemical testing may be unavailable and potentially derail planned screening programs.
LIMITATIONS OF THE NEWEST MNA-SF

Because the MNA was specifically developed for use in adults 65 and older, no version of the MNA is a universal screen for all ages and disease states. Non-nursing staff may be unfamiliar with measuring calf circumference and require instruction in accurately completing this measurement. Completing the newest MNA-SF may be challenging in cognitively impaired patients who cannot provide reliable answers to the subjective questions; however, if a caregiver can provide accurate input and all questions on the form are answered, it is considered the best tool to use for geriatric patients. In addition, it was not designed for individuals receiving enteral tube feedings; these high-risk patients require full nutrition assessment and follow up by a registered dietitian.

The validation of the newest MNA-SF in 2009 did not include an evaluation of reliability due to the nature of data acquisition, which consisted of a compilation of preexisting datasets and precluded an analysis of reliability. Although the reliability of the MNA-SF is excellent when used as a component of the full MNA, reliability testing of the newest MNA-SF in the future is recommended since the efficiency of a tool depends on its reliability when used by different observers.

ROLE OF NURSES IN GERIATRIC NUTRITION SCREENING

Nurses are key players in implementing a systematic and standardized approach to nutrition screening, as they are frequently responsible for the initial screening assessment. They perform most of the nutrition screening done in hospitals (Chima et al., 2008). Nutrition screening for malnutrition should be an essential component of every comprehensive geriatric assessment (Morley, 2004).

Nutrition screening should occur in any setting where older adults receive services or care, including hospitals, long-term care settings, assisted living facilities, adult day care programs, federal senior nutrition programs, home health, medical homes, and physician offices (Kamp, Wellman, & Russell, 2010). However, mandatory nutrition screening currently occurs only in long-term care and hospital settings. The need for more widespread screening in other settings creates opportunities for nurses to serve as strong advocates for the establishment of validated screening and referral systems. In the hospital setting, the newest MNA-SF is particularly well suited for nutrition screening on specialized geriatric or Alzheimer’s disease units. Malnutrition is extremely common in long-term and sub-acute care settings and contributes to longer lengths of stay and more frequent readmissions to acute care (Thomas et al., 2002). Malnutrition screening using the newest MNA-SF in these settings not only leads to quicker identification of at-risk older adults but can provide objective data to support a diagnosis of malnutrition on the Minimum Data Set 3.0-approved active diagnoses list under the CMS’ new comprehensive assessment plan for long-term care. More widespread use of a validated malnutrition screening tool would seemingly be welcomed in the growing areas of assisted living and adult day care, where high value is placed on maintaining residents’ functional status to prevent transfer to more costly and restrictive nursing home care. Currently, those industries—unlike long-term and sub-acute care—are largely unregulated and lack mandated nutrition screening (Langkamp-Henken, 2006). In home health, malnutrition screening provides objective data for the Outcome and Assessment Information Set and is easily incorporated into home visits to identify older clients with nutritional deficits, risk of malnutrition, or failure to thrive, who may benefit from intervention.

In the community, nurses can work with dietitians and others to ensure that community-based, in-home, and center-based services include malnutrition screening to identify those older adults at risk of developing undernutrition. Once identified, they should be referred to nutrition services provided under federal and state initiatives designed to help high-risk older adults stay in their homes and avoid unnecessary institutional care (Sahyoun, 2011). In physician offices and patient-centered medical home settings, nurses can use a validated malnutrition screen to quickly identify at-risk patients and coordinate needed interventions.

Geriatric nutrition screening should be repeated at regular intervals, depending on the setting; yearly screen-
ings are appropriate in community-dwelling older adults, while those receiving home care should be screened every 3 months. Nursing home residents should be screened on admission, have their weight checked monthly, and receive special attention if oral intake changes significantly. Older hospitalized patients should be screened on admission and at regular intervals during a prolonged stay (Bauer et al., 2009).

**NEXT STEPS AFTER MALNUTRITION SCREENING**

Although the newest MNA-SF has been shown to identify older adults who are at risk for malnutrition or are malnourished, the tool does not clearly distinguish between the types and causes of malnutrition, which may include simple starvation (calorie deprivation), sarcopenia (a decline in muscle mass and strength during normal aging), or cachexia (excessive weight loss over time due to chronic inflammatory disease) (Rolland, Abellan van Kan, Gillette-Guyonnet, & Vellas, 2011). When the newest MNA-SF score is less than 12, it is important to refer the older adult to a registered dietitian or other qualified nutrition professional to conduct a comprehensive nutritional assessment that includes an in-depth analysis of food- and nutrition-related history; anthropometric measurements; client history; nutrition-focused physical findings; and biochemical data, medical tests, and procedures. Although the screening tool focuses on relevant problems that affect older adults’ nutrition status, such as dementia, depression, acute disease, and mobility problems, it is not a substitute for an individualized nutritional assessment that systematically addresses the types and causes of malnutrition, defines the nutrition problem, and provides the basis for planned intervention. Since malnutrition and weight loss in older adults is often multifactorial, interventions should target each cause and be individualized (Bauer et al., 2009). After all, it is the intervention that improves outcomes, not the screening process.

In settings with limited access to the services of a registered dietitian, such as many assisted living facilities, nurses may be called on to implement nutrition interventions for malnourished or at-risk older adults in the interim. Based on the client’s score on the newest MNA-SF, Figure 2 provides suggestions for interventions and follow up until a more detailed nutritional assessment can be completed. Recommendations for oral nutrition supplementation (ONS) are based on the latest systematic review of 34 trials with 3,021 older adults, which showed that ONS of 400 to 600 kcal per day provided a clear benefit in older adults at risk for malnutrition. The same study found a 26% decreased mortality risk in malnourished older adults who receive ONS compared with those who receive no supplementation (Milne, Potter, Vivanti, & Avenell, 2009). Other options include diet enhancement, food fortification, and feeding assistance.

Studies using earlier versions of the MNA showed that scores improved or were maintained following nutrition intervention, suggesting the tool can also be used to monitor response to intervention. A study of older hospitalized patients who were at risk for undernutrition, based on initial scores on the MNA (version 2), showed that body weight was maintained and MNA scores improved after 2 months of ONS (Gazzotti et al., 2003). Use of the newest MNA-SF as a follow-up tool requires further study.

**SUMMARY**

Malnutrition is common and often undiagnosed in older adults. If left untreated, malnutrition carries both clinical and financial risks, including decreased quality of life, functional decline, inability to live independently, and increased health care costs. Many times, malnutrition is reversible, and the cornerstone of managing malnutrition is screening and early detection to create a prevention and treatment plan. Validated tools are essential to evidence-based practice and promote the most effective use of limited resources. The newest MNA-SF fulfills many criteria for an ideal screening tool for older adults and is consistent with earlier versions of the MNA, which are recommended by professional organizations (Kondrup, Allison, Elia, Vellas, & Plauth, 2003). It provides a simple, noninvasive, inexpensive, easy-to-use nutrition screening tool that is highly specific and well validated and can quickly and easily identify older adults who are malnourished or at risk for malnutrition. It is time for nurses and other clinicians to incorporate the newest MNA-SF into their practice and encourage its use at their facilities.

**REFERENCES**


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Ms. Skates discloses that she is a consultant to Nestlé Health Sciences, and Ms. Anthony discloses that she is an employee of Nestlé Health Sciences. This project was supported by a grant from Nestlé Nutrition to Ms. Skates for writing the manuscript.

All versions of the Mini Nutritional Assessment® (MNA) were developed by the Nestlé Research Center, in collaboration with hospital clinicians, and are the property of Nestlé S.A. The newest MNA-SF and accompanying user guide, along with other practical resources, can be downloaded free of charge from the http://www.mna-elderly.com.

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