Recognizing malnutrition in the data.

Using data to identify, treat, and prevent malnutrition

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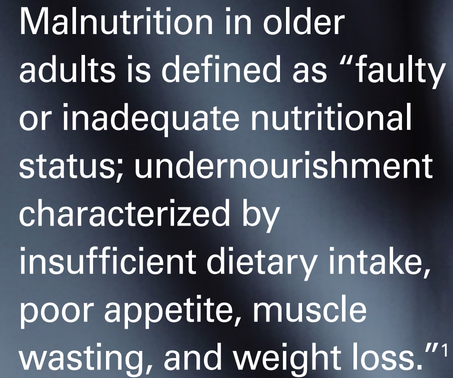
Malnutrition is a major health concern for seniors, especially since the onset of the COVID-19 pandemic. Having easy access to data that indicates the nutritional status of older adults allows care providers to take quick and appropriate action to combat it.

Learn more about using data to recognize and manage malnutrition.

The challenge



Malnutrition in older adults is defined as “faulty or inadequate nutritional status; undernourishment characterized by insufficient dietary intake, poor appetite, muscle wasting, and weight loss.”[1]

It is a challenge for caretakers because it can:

- Be difficult to recognize
- Be a precursor for frailty and health decline
- Have significant impacts on morbidity, mortality, and quality of life.[2]

1. Chen, Schilling, & Lyder, 2001
2. Chen et al., 2001

Identifying the risk factors

There are several ways to gather data on a resident's nutrition status, beginning with the point of admission and extending beyond that. Long-term care admission documents often include multiple assessments which capture nutrition information directly or indirectly. Here is how data from four different assessments can identify risk factors.

1 Face sheet

The face sheet includes vital data that can help you identify nutritional risks for each resident. This document includes information dietary, economic, psychosocial, and psychological factors that can all affect the risk of malnutrition.

Demographic data on the face sheet includes age and personal information such as marital status, race, and religion. Each factor can provide important clues about potential malnutrition:

- Age: Older adults may already have lost lean body mass due to age, disease process, or declining activity levels.
- Marital status: Older adults who eat alone may lose their enjoyment and interest in food.
- Race and religion: This information can shine light on personal eating habits and the potential for dietary restrictions or culturally-based diet practices.

The face sheet includes a list of ICD-10 diagnoses and allergies, as well as insights into any existing disease process, food allergies, or intolerances. Taken together, all the data on a face sheet can provide significant insight into the risks of malnutrition for a specific resident.

2 Malnutrition screening tool

MatrixCare offers a pre-built malnutrition screening tool (MST) to quickly identify residents who are at risk of, or already experiencing, malnutrition. The two-question tool covers weight loss and appetite, and can be completed by any health professional, including nursing staff, when a resident is admitted to a facility. Research, including Aspen guidelines, supports use of the tool to indicate which residents need an immediate referral to a registered dietitian for further assessment.

3 Vitals page

Before COVID-19, astute caregivers were often able to observe residents during meals in common dining areas and help those who weren't eating enough—or at all. Now, in place of direct observations, the vitals page offers layers of information on resident nutrition.

Food consumption data on the vitals page is expressed in percentages. Resident weight, height, and BMI are included here, and bowel and urine output are documented. All of this information can be aggregated to help evaluate a resident's nutritional status, and provide insights into key questions such as:

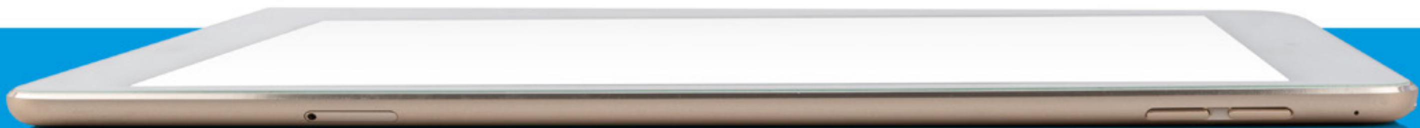
- If a resident is consistently below 25% in food consumption, would it be true that weight loss will follow?
- If a resident only eats 25% of their food, what essential macronutrients and vitamins are not being consumed?
- If a resident is having fewer bowel movements and less urine output, is that a result of poor food and fluid intake?

When data from the vitals page shows a potential malnutrition risk, it's time to look more deeply so staff can take appropriate actions to help prevent, stop, or reverse malnutrition.

4 The significance of observation information

Reviewing observation information is a great place to explore why a resident may be at risk for malnutrition. Observation data can help clinicians gather information about diet, food, eating, and nutrition. There are various observations that can be helpful:

- Admission observation: This may include oral status including presence of dentures; vision, hearing, and mental status; and a head-to-toe assessment.
- PHQ9: This provides an acuity score for assessing depression. Loss of appetite and lack of motivation to eat are often associated with depression.
- Brief interview for mental status: This interview provides acuity scores needed to understand whether the resident realizes the impact of poor nutrition on their health. It can also play a key role in improving their nutrition.
- Social service admission: This data can reveal psychosocial and economic aspects of a resident's life that may provide insights into how food was purchased and prepared, and about the social aspect of eating for the resident.
- Malnutrition screening tool: Nutrition screening is typically completed within 24 hours of admission and can immediately identify an at-risk resident.
- Nutrition observation/assessment: A complete nutrition assessment by a registered dietitian can clearly identify indications for a malnutrition diagnosis.



Administrative considerations

Nurses on the front-line have an important role recognizing the factors that place residents at risk for malnutrition. However, an interdisciplinary approach between nursing and dietary professionals not only supports identification of malnutrition risks, but also helps you capture the information needed for an appropriate diagnosis.

Although the Patient Driven Payment Model (PDPM) supports malnutrition identification, it does not provide precise information on how to capture the diagnosis. Nursing and dietary staff need tools that allow them to accurately document their findings upon admission and during recurring assessments. A validated screening tool is the first step.

Timing considerations

Under PDPM, providers need to identify criteria and submit supporting documentation to capture a malnutrition diagnosis. A validated, timely malnutrition screening tool and a referral to a registered dietitian for an assessment can result in significantly improved reimbursements.

When capturing a malnutrition diagnosis under PDPM, time is of the essence. If malnutrition is not identified on the five-day MDS, there may not be another opportunity to submit that diagnosis for 100 days. The non-therapy ancillary (NTA) payment component includes nutrition and also offers the opportunity to prove the value of your registered dietitian.

Nutrition interventions

Once a malnourished resident is identified, immediate recommendations and care plan interventions can help improve—and resolve—the condition. Some interventions that support proper treatment for malnourishment include:

- Honoring resident preferences
- Providing additional meal portions
- Offering appropriate snacks
- Oral supplementation with routine monitoring and evaluation

Having a food and nutrition software solution to manage those interventions and monitor resident progress is key.

How MealTracker can help

MatrixCare's MealTracker solution provides individual resident profile details to better manage a malnourished resident's needs. Interventions can be implemented that can:

- Improve intake at meals
- Honor preferences and meal timing
- Add snacks to increase and improve caloric intake

In addition, MealTracker can help identify and manage weight loss with its weight alert flag while also monitoring malnutrition factors such as resident BMI. The solution's malnutrition risk alert also notifies providers when a resident is at risk.

Additional MatrixCare EHR tools include:

- ADLs and CMS' functional abilities provide insights into the mechanics of a resident's ability to eat and swallow food.
- Orders help identify medications that reduce appetite or change the taste of food.
- Pain assessment can identify signs of chronic pain or inflammation, which can reduce appetite and food intake.
- Activity level information, including bed rest orders associated with loss of lean muscle mass and poor appetite, is highlighted.

Being able to better manage a critical diagnosis like malnutrition can improve reimbursement under PDPM, while improving overall interdisciplinary care. MatrixCare's MealTracker can help your nurses, dietitians, nutritionists, clinicians, and dietary managers recognize malnutrition in your data so you can better manage the needs of malnourished residents.

Amy Wootton, *RDN, has over 20 years of experience in nutrition leadership for seniors, as well as experience in acute care, food service management, nutrition informatics, and wellness education. Amy joined MatrixCare over 4 years ago working closely with both the clinical product line as well as dietary software solution MealTracker. Her success in introducing integrations and feature enhancements to development team to incorporate nutrition standards of practice has been paramount for the profession of dietetics.*

Amy is an active member of the Academy of Nutrition and Dietetics, was appointed Chair on the Interoperability and Standards Committee, founding leader on the Nutrition Informatics DPG, and contributed to the Academy's Nutrition Care Process Toolkit Workgroup. Amy is a dedicated leader and is passionate about the success of nutrition interventions as an electronic solution to healthcare crisis.

Connie French, *RN, BSN is a Senior Process Consultant for MatrixCare. Connie graduated with honors from Northeastern State University with a degree in nursing. She has worked for over eight years assisting clients to create the best clinical workflows when adopting and implementing MatrixCare.*

Connie has held Director of Nursing positions in long-term care and understands the challenges clients face in today's complex industry. She comes with over 39 years of nursing experience primarily in leadership, education and quality assurance roles.

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