

Nutritional screening in home-based nursing care can be improved

In order to meet the challenges associated with undernutrition in elderly patients who receive home-based nursing care, it is necessary to screen for nutritional status.

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ABSTRACT

Background: Half of the elderly patients receiving home-based nursing care are undernourished or are in danger of this. National professional guidelines and *Kosthandboka* (nutrition manual) provide advice on how healthcare services can prevent and treat undernutrition. Screening for nutritional status must be performed regularly for all patients. Without good screening routines, it may be difficult to detect undernutrition. Inspection shows that the screening process varies among municipalities, despite the fact that the nurse has a clear responsibility to screen for nutritional status.

Objective: To elicit good solutions that simplify and systemise the assessment of nutritional status.

Results: Many elderly patients present a complex clinical picture that complicates the assessment of nutritional status. Short visits to patients make it difficult to prioritise screening for nutritional status. Moreover, the large selection of screening tools available makes it challenging to choose the best suited. The short form of the Mini Nutritional Assessment (MNA-SF) is evaluated as being best. The MNA is based on weight and height measurement (BMI). Standing on a set of scales may be a challenge for some elderly patients. Moreover, a changing body posture or being bedridden may make height measurements uncertain. In the MNA-SF, measurement of calf circumference can replace BMI.

Managers are well positioned to put screening on the agenda as part of interdisciplinary nutritional efforts. Nurses want to have more nutritional expertise and a clearer allocation of responsibility. A variety of studies call for more knowledge about screening tools and a better standard of documentation of nutritional data in electronic patient records (EPR). Therefore, expertise is of key importance in strengthening and quality assuring nutritional efforts.

Conclusion: Screening for nutritional status can make it easier to detect nutritional problems before undernutrition arises. A good solution is to screen for nutritional status using the Mini Nutritional Assessment short form (MNA-SF). The nutrition manual provides useful tips.

Half of the elderly patients receiving home-based nursing care are undernourished or are in danger of becoming so, usually because of illness (1–6). National professional guidelines and the nutrition manual give advice on how the health and care services can prevent and treat undernutrition. By screening for nutritional status when the need for home-based nursing care arises, and subsequently at regular intervals, the nurse can detect nutritional problems at an earlier stage (7, 8).

In the absence of good routines, unintended weight loss can be difficult to detect, with undernutrition as the result (1, 3). Symptoms of undernutrition may be confused with the symptoms of cognitive impairment or dementia, or may mask other illnesses that necessitate treatment (9).

Using targeted nutritional interventions as part of good screening routines will make it easier to prevent patients from becoming undernourished and underweight. Screening forms the basis of future assessment and implementation of nutritional interventions to prevent the occurrence of undernutrition (7, 8).

The nurse has clear responsibility for screening for nutritional status (7). Despite explicit national guidelines, the Norwegian Board of Health Supervision reports inadequate follow-up of nutrition in several municipalities (10).

Therefore, we wonder why there is such a variation in practice. In this article, we discuss the challenges associated with screening for nutritional status in home-based nursing care. The objective is to shed light on good solutions that simplify and systemise the assessment of nutritional status.

Inadequate screening

There is no lack of evidence about the extent of undernutrition among elderly people in the healthcare services and about the considerable lack of knowledge, resources and staff with nutritional expertise (5, 11, 12). Many municipalities have routines for systematic screening for nutritional status (10). For example, nutritional follow-up of cognitively impaired elderly people living at home has proved to be fruitful (13).



«What explanation can there be for nurses failing to screen for nutritional status?»

In other municipalities, no such standardised practice exists. The Norwegian Board of Health Supervision also finds municipalities with written routines that call for the use of screening tools, but where no such practice has been established (10).

What explanation can there be for nurses failing to screen for nutritional status? Home visits are shorter and less frequent than in an institution. Sometimes there is no opportunity to ask about or observe food intake, to measure weight or screen for nutritional status in the time allocated. In cases where screening is difficult and the patient is unable to answer, the patient may become undernourished and underweight before the nurse has a chance to react.


Unable to change practice

Earlier screening can prevent such developments if there are targeted nutritional interventions. In one study, nurses talk about the lack of weight measurement scales. They describe patients who do not want to be weighed or to talk about their own diet. The familiarity of the nurses in the study with the content of the national professional guidelines varies. Many of them are not familiar with terms such as nutritional status, nutritional plans and undernutrition.

Instead, the nurses talk about what the patient has eaten, and how to facilitate intake of food and meals. They have thoughts about deficiencies and about what is needed but they are unable to change their practice. The nurses expect managers to choose a screening tool and put nutritional screening on the agenda (14). In this respect, managers have a key responsibility for improving screening routines.

Seek clarification of the doctor's role

When a nurse discovers that a patient is in danger of becoming undernourished, the doctor must follow up by making a diagnosis and assessing nutritional interventions. The doctor is responsible for medical treatment and the nurse is responsible for screening for and assessing nutritional status. The nurse must prepare a nutrition plan and evaluate the intervention in conjunction with the doctor (7, 8). The nurses in the study seek clarification of the doctor's role in nutritional efforts (14).



«The doctor is responsible for medical treatment and the nurse is responsible for screening for and assessing nutritional status.»

This may indicate that many patients present a complex clinical picture that makes assessment of nutritional status more difficult. When the clinical picture is complex, nutritional problems can be interpreted as something other than undernutrition (9). It may not be easy to detect gradual weight loss until the patient's clothes become too loose. A simple solution is to measure the weight of the patient regularly.

It is essential that the nurse observes the patient's general condition on each home visit and assesses relevant interventions. Since the clinical picture may be complex, nurses need a professional community where they can discuss their assessments. Is there sufficient leeway for such discussions?

The nurse holds the key to collaboration

Nurses are responsible for consulting others with the relevant professional background in order to discuss their professional assessments (8). Thus, the key to collaboration lies with the nurse. For some of the nurses in the study, it was unclear who had responsibility for what (14). As a result, it was difficult to take the initiative in interdisciplinary collaborations.

There are many different actors working in the field of nutrition in the healthcare services. The establishment of interdisciplinary resource groups consisting of, for example, a cook, care worker, nurse and doctor can strengthen collaboration (8). In order to ensure quality and continuity in nutritional efforts, it is crucial that everyone in the healthcare services knows who is responsible for what. When there is no allocation of responsibility, it is difficult to put in place good routines and a professionally sound collaboration. This concerns more than doctors' failure to diagnose undernutrition (15), or nurses omitting to assess nutritional status.

According to the Norwegian Board of Health Supervision, written documentation on the distribution of responsibility for nutritional efforts is lacking in several municipalities (10). National professional guidelines set out requirements for closer collaboration and a clearer distribution of responsibility (7, 8). Managers are in a key position to put screening on the agenda as part of interdisciplinary nutritional efforts.

Many screening tools

The Board finds that there is a variation in the extent to which municipalities screen for nutritional status (10). Lack of knowledge may be an explanation when nutritional problems are not detected at a sufficiently early stage (2, 11, 14). Can lack of knowledge about screening tools also be a reason? The many screening tools differ as regards nutrition-related factors and the recommended target group. Does this make it difficult to choose the most suitable tool?

The *Ernæringsjournal* (nutrition record chart) and the Mini Nutritional Assessment (MNA) are most often used in home-based nursing care and in projects under the auspices of the Centre for Development of Institutional and Home Care Services (16). National professional guidelines recommend the MNA and the Malnutrition Universal Screening Tool (MUST) in the primary health service, supported by well-designed, non-randomised studies.

Other screening tools such as the nutrition record chart, screening for nutritional risk (NRS 2002) and the Subjective Global Assessment of Nutritional Status (SGA) are good alternatives, but the recommendations are not backed up by research studies (7).

Effective screening tools

Since the recommendations of the Norwegian Directorate of Health regarding the two screening tools carry different professional weight, it is interesting to examine the grounds for the recommendations more closely. It is crucial that the nutritional variables in the screening tool take diet, body measurement and bodily functions into account (17). Both of the tools do so.


Moreover, they are both evaluated as being valid and reliable tools for nutritional screening but on different grounds (7). The nutrition record chart is used in Norway and only exists in Norwegian (2). The MNA is validated for use in different languages, including the Norwegian version (18, 19). The nutrition record chart has been developed in a joint student project between several Norwegian nursing colleges.

Nursing students assessed the qualities of the screening tool in use, and this forms the basis of the evaluation of validity (20, 21). The MNA has been validated over a number of years in many different countries in projects with elderly patients living mainly in institutions (22–26). The MNA-SF has been evaluated as the best alternative when compared with other international tools (22, 27).

The screening procedure is faster and reveals nutritional risk just as well as the full version (22–24). Choosing a tool that is efficient when the time allotted to each patient is short is a relevant factor.

What should be done?

What should be done to ensure that the screening tool is used? Health personnel must understand that body measurement is an important supplement to clinical assessment. Weight development is, for example, an early marker of unsatisfactory nutrition (17). Both the nutrition record chart and the MNA are based on body mass index (BMI), which is the ratio of height to weight (7, 8). BMI is controversial when screening for nutrition in elderly people (17, 18).



«Health personnel must understand that body measurement is an important supplement to clinical assessment.»

It can be difficult to measure height correctly when the vertebral column is compressed, or when the patient has a stooped body posture or is bedridden. If the patient is unable to stand on the scales, it is difficult to use body measurement. Without the weight measurement, it is impossible to calculate BMI. What can the nurse do in such cases to screen for nutritional status?

In the MNA-SF, a measurement of the calf circumference can replace BMI when height or weight measurements are lacking (22). A tape measure can therefore simplify the screening. If only the height measurement is lacking, the nurse can estimate height by using forearm length, knee height or demi arm span in both the nutrition record chart and the MNA. Our impression is that many nurses are not familiar with these alternatives, even though the nutrition manual recommends them as appropriate solutions (8).

Student project led to quality enhancement

Many of the Centre for Development of Institutional and Home Care Services' projects have had the aim of using screening tools in nutritional efforts (16). This was the objective of a student project in which nursing students on practice placements in the home-based nursing services screened for the nutritional status of elderly patients. Screening and instruction in the field of practice provided the students with valuable knowledge and experience. It also provided the field of practice with a golden opportunity for quality improvement (28).

In one of the municipalities the project resulted in the appointment of nutrition contact persons in the home-based care services. A course on nutrition was also arranged for primary health service personnel with a clinical dietician from the specialist health service. Skills enhancement and collaboration between the Centre and nursing colleges can thus contribute to better quality in nutritional efforts in home-based nursing services.

Dieticians in the primary health service

In addition to the interventions mentioned above, expertise is of vital importance in strengthening and quality assuring nutritional efforts in home-based nursing care. The Directorate of Health therefore wishes to incorporate dieticians into the primary health service (29). Clinical dieticians in the specialist health service have qualifications in nutritional therapy.

Dieticians have formal qualifications in nutrition and want to have a clear mandate in interdisciplinary nutritional efforts in the primary health service (8). Greater knowledge of nutrition will strengthen the prerequisites for evidence-based practice. It would be easier for the nurses to provide the patient with evidence-based nutritional advice and interventions, and they would be able to consult someone other than doctors about issues related to nutritional assessment or screening for nutritional status.

About time to react?

In order to prevent undernutrition, we need to change our screening routines. It is a well-known fact that changing routines on the basis of national guidelines can be a challenge (30). How can we deal with challenges that seem impossible to solve? We need knowledge, determination and resources in order to implement quality improvements.



«It is a well-known fact that changing routines on the basis of national guidelines can be a challenge. »

Management has a specific responsibility for seeking nutritional assessments and ensuring good documentation routines. For example, management must pave the way for training in the use of screening tools. Good knowledge of screening tools will make it easier to introduce new routines.

In addition, management must earmark sufficient time for screening and documentation. Screening for nutritional status need not supplant other work tasks when the MNA-SF only takes a few minutes (14, 22). Undertaking screening without following up with assessment and nutritional interventions, as is the case in a number of municipalities, is pointless (10, 29).

Nutritional data in electronic patient records

At the outset, screening tools are not part of the system for electronic patient records (EPR). Might this partly explain the failure to map nutritional status? A working group in the Directorate of Health concludes that the structure of the EPR in municipalities is not suited to standardising nutritional data. Nutritional data are primarily documented unsystematically in free text, and are not well suited to quality measurement (29).

Our experience is that screening tools are used in paper format independently of electronic patient records (EPR). The working group wants to standardise documentation in the EPR based on nutritional variables from validated screening tools. When the same nutritional variables are incorporated into the Norwegian Information System for the Nursing and Care Sector, this may result in a wider use of nutritional screening.

The working group also focuses on the problem of different electronic documentation systems between municipalities and between the municipalities and the specialist health service as an obstacle to interaction and standardised nutritional routines (29). The EPR is therefore of vital importance in reinforcing the prerequisites for nutritional screening. Many factors must be taken into consideration for nutritional efforts to be completely successful.

Conclusion

We have highlighted some challenges that can explain the lack of nutritional screening in home-based nursing care. When time for each patient is short, nurses may perceive nutritional screening as unnecessary use of time (14). On the other hand, it would be a sensible use of the allocated resources if more patients can be helped at an earlier stage (29).

Making nutritional screening a routine procedure would make it easier to detect nutritional problems before illness and weight loss arise (23). Many are unaccustomed to carrying out prevention work as opposed to treatment (24). High-quality nutritional efforts demand robust routines and good interdisciplinary collaboration in order to meet the challenges posed by undernutrition in elderly patients receiving home-based nursing care. The nutrition manual can be a useful document to use as a starting point (8).

Until the necessary changes have been introduced in the EPR, a good solution may be to use the MNA-SF. In this way, we can improve targeted nutritional screening of more patients receiving home-based nursing care.

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