What more can community nurses do to manage adult malnutrition

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Malnutrition can be defined as 'a state resulting from lack of intake or uptake of nutrition that leads to altered body composition (decreased fat free mass) and body cell mass, leading to diminished physical and mental function and impaired clinical outcome from disease' (Sobotka, 2012). Left untreated, malnutrition (undernutrition) can cause physical, psychological, functional and clinical changes. Most malnutrition is disease-related (Stratton et al, 2003), but social and mechanical factors can also play a part in its development. Older people are particularly vulnerable to malnutrition, because of a combination of factors including one or more medical conditions, social and physical factors interfering with the ability to eat, and problems with sourcing or preparing food (Morley, 1997; Holdoway et al, 2017).

It is important to remember that screening for malnutrition is only the starting point and that further assessment is vital to identify and reverse the underlying causes and determine the appropriate care plan (Holdoway et al, 2017).

ABSTRACT

This article gives an outline of the key groups at risk of malnutrition in the community and the effects and clinical consequences of not identifying and managing these groups. It outlines the potential health and social costs of not identifying and treating malnutrition in the community and advises how malnutrition arises in these 'at-risk' groups. As 93% of those affected by malnutrition are living in our communities, advice is given on how community nurses can play a pivotal role in identifying malnutrition by initiating conversations about dietary intake with patients and integrating screening and nutritional care into pathways of care.

KEY WORDS

◆ Malnutrition ◆ Screening ◆ Multi-morbidity ◆ Oral nutrition support

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It is surprising that, given the importance that many of us place on food in everyday life, we continue to fail to identify and treat malnutrition. Malnutrition and its consequences not only place demands on the individual and their carers, but place extra demands on nurses, GPs and other members of the healthcare team, who have to deal with consequential effects on their patients' health and wellbeing, including weakness, pressure ulcers, depression and deterioration in health.

Which of your patients may be at risk?

Malnutrition is a serious public health problem, affecting more than 3 million people in the UK (Elia and Russell, 2009), with the vast majority of these living in the community. It affects patients in all care settings, all disease categories and individuals of all ages (Elia, 2015). *Table 1* lists the types of patients who are particularly at risk of developing malnutrition and for whom extra vigilance in screening and spotting the signs of malnutrition is necessary.

With an ageing population (Office for National Statistics, 2018) and an increasing number of individuals with multi-morbidities (factors that increase the risk of malnutrition), the prevalence of malnutrition is likely to rise unless the screening, treatment and prevention of this debilitating condition are dramatically improved.

Impact of not tackling malnutrition in at-risk groups

Patients with malnutrition have a deficit of vitamins, protein, minerals and energy, which will have an adverse effect on the body. Complications associated with malnutrition include poor wound healing, skin breakdown and increased risk of sepsis and hospital-acquired infections, such as chest and urinary tract infections (Anderson, 2017).

Poor nutritional status and malnutrition in older adults and other groups at risk of malnutrition are

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important areas of concern. Being malnourished and experiencing unintentional weight loss will contribute to a progressive decline in health, reduced physical and cognitive functional status, premature institutionalisation, increased use of health and social care services, increased mortality and reduced quality of life (Evans, 2005).

The effects and clinical consequences of malnutrition are wide ranging and are summarised in *Table 2*.

How does a person become malnourished?

Malnutrition may arise as a result of a chronic health issue that has resulted in years of slow deterioration and often goes undetected until that person is in crisis, that is, admitted to hospital with exacerbation of their condition (Taylor, 2014).

Eating and drinking can be a challenge in a wide range of medical conditions, during acute illness including that associated with chronic diseases and pre and post-operatively (*Table 1*). Factors interfering with food intake are particularly relevant among older adults due to physical challenges in this group, such as the ability to use cutlery, chew, swallow or even see food and drink. In addition, everyday routines and activities that drive habits, such as meal times, can be adversely affected with the ageing process. In disease and ageing, appetite and taste may decline, so food and drink taste different and can be less palatable and less pleasurable. Along with a diminishing appetite, satiety arises earlier, all of which are further reasons why food may be consumed in smaller amounts (Evans, 2005).

Considerable work has been carried out in recent years to raise awareness of the issue of malnutrition in the community and put in place pathways of care, education and training to tackle this condition. There undoubtedly remains much to be done in targeting training and resources to increase the awareness in 'at-risk' groups (see *Table 1*). Those at risk, or who are already malnourished, must be proactively identified, and the appropriate actions must be taken to address and reverse, where possible, the multifactorial issues that contribute to nutritional risk and malnutrition.

Table 1. Groups at risk of malnutrition

Group	Examples
Those with chronic conditions (consider acute episodes) (Stratton, 2003; Elia and Russell, 2009)	• Chronic obstructive pulmonary disease (COPD) • Cancer • Gastrointestinal disease • Renal or liver disease • Inflammatory conditions such as rheumatoid arthritis, inflammatory bowel disease
Progressive neurological disease (Elia and Russell, 2009)	• Dementia • Parkinson's disease • Motor neurone disease (MND)
Acute illness (Elia and Russell, 2008)	Where adequate food is not being consumed for more than 5 days (more commonly seen in a hospital than a community setting)
Debility (Stratton, 2003)	• Frailty • Immobility • Old age • Depression • Recent discharge from hospital
Social issues (Elia and Russell, 2009)	• Poor support • Housebound • Difficulty obtaining or preparing food • Homelessness • Alcoholics/substance abuse • Learning disabilities
Rehabilitation	• After stroke (Elia and Russell, 2009) • Injury (Stratton, 2003) • Cancer treatment (Stratton, 2003) • Any patient who has received intensive care (Wischmeyer, 2017)
Palliative/end-of-life care (Preedy, 2011; Shaw, 2011)	COPD, heart failure, living with cancer and its consequences (tailor and adjust advice according to phase of illness, particularly in last few weeks of life)

Barriers

The National Institute for Health and Care Excellence (NICE) has issued clear guidance on screening, dietary recommendations and care of people at risk of malnutrition, both in the community and acute setting (NICE, 2006). However, there is evidence that this is still not being carried out routinely in many areas (Russell and Elia, 2015).

There remains a common misconception that nutritional deficiencies, unintentional weight loss and frailty are an inevitable consequence of ageing and disease. Fortunately, this myth is now being challenged. The recent All-Party Parliamentary Group report 'Hidden Hunger and Malnutrition in the Elderly' (All Party Parliamentary Group on Hunger, 2018) emphasised the need to screen patients in all levels of care if the growing burden that malnutrition is placing on the NHS and social care is to be addressed and subsequently reduced.

How might community nurses help?

In a report by the Patients Association, it was stated that many patients and their carers wanted more information about eating and drinking—particularly in those with chronic health conditions (Patients Association, 2015).

Ensuring that patients are screened on first contact to assess their malnutrition risk and putting a clear care plan in place that takes account of their nutritional needs

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Table 2. Effects and clinical consequences of malnutrition

Impaired immune response	Decrease in ability to fight infection meaning the patient is likely to visit the GP more
Reduced muscle strength and fatigue	• Inactivity leads to a reduction in the ability to work, shop and self-care • Poor muscle tone and dehydration may result in falls • Poor respiratory muscle function increases the risk of developing chest infections
Inactivity	If the patient becomes so immobile that they have difficulty in getting out of the bed or chair, they will be at risk of developing pressure ulcers, and venous thrombosis
Impaired temperature regulation	Increased risk of hypothermia
Delayed wound healing	If a person is not eating enough to maintain adequate levels of nutrients including zinc, Vitamin C and protein, wounds will take longer to heal, they will be more prone to infection and are at an increased risk of dehiscence
Impaired ability to regulate periods	Affects reproductive function in women
Impaired foetal and infant development	Malnutrition in pregnancy predisposes the foetus to common chronic diseases in adulthood, such as cardiovascular disease, stroke and diabetes
Growth failure	Stunting, delayed sexual development, reduced muscle mass and strength
Impaired psycho–social function	Even when not disease related, malnutrition causes apathy, self-neglect, depression and deterioration in social interactions causing the individual to become increasingly socially isolated
Adapted from Best and Evans, 2014	

and gives them access to support from a dietitian where needed can make a difference to tackling the issue of under-nutrition in the community.

If a patient is at risk of malnutrition, then oral nutritional support is often the first-line treatment. Oral nutritional support can include some or all of the following:

- Food fortification—enriching food with added ingredients to increase the calorie and/or protein content e.g. adding cheese or ground nuts to soups, pasta dishes, curries; adding extra butter, margarine or ghee to vegetables; whisking milk powder into milk for use with cereal or in desserts such as custard
- Encouraging different eating patterns, for example, eating little but often
- Modified texture, for example, using thickeners—designed for those who have difficulty swallowing and/or chewing. Further information can be found at https://tinyurl.com/y5mcj95y or at https://iddsi.org/
- Adjusting food choice—avoiding filling up on low calorie foods and making room for the high protein and energy, for example, starchy foods at meal times; swapping ‘diet’ foods, for example, sugar free, fat-free yogurts, for those containing fats and sugars; replacing skimmed or semi-skimmed milk with whole milk
- Oral nutritional supplements—there are a wide range of oral nutritional supplement styles (milk, juice, yogurt, savoury), formats (liquid, powder, pudding, pre-thickened), types (high protein, fibre containing, low volume), energy densities (1–2.4 kcal/ml) and flavours available to suit a wide range of needs and preferences. Further information can be found at https://tinyurl.com/y5mcj95y.

While the goal may be to optimise intake, this may not be achievable through food and modified diet alone, particularly in those whose appetite is affected and in those whose illness has an inflammatory component, for example, cancer, rheumatoid arthritis and infection. It is, however, important to remember that food is more than just the nutrients it provides: food is associated with pleasure, can bring us together for company, can break up the day and provide structure and companionship. It is used in most cultures to celebrate happy occasions. Food consumption should, therefore, continue to be encouraged where possible, with appropriate nutritional support (oral nutritional supplements/tube feeding) where clinically indicated.

Individuals responsible for providing dietary advice and information should keep in mind that the advice should be practical and acceptable to the individual and carer. Evaluating what the patient is able to eat and drink, what is preventing them from doing so and whether that can be reversed or managed should all form part of the holistic assessment.

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What resources are available to help?

In order to facilitate measures to address the issue of malnutrition in the community in the UK, an expert multi-disciplinary panel came together in 2012 to produce a practical guide to assist community healthcare professionals in identifying and managing malnutrition, an updated version of which is now available (Holdoway et al, 2017). The panel has involved and liaised closely with stakeholders and representatives from key organisations involved in the care of patients in the community who are at risk of developing malnutrition to ensure that the document is relevant to professionals working in all care settings in the community. Unique to the update is the involvement of patient representatives, who assisted in developing the content of the patient and carer resources produced.

As before, the guide 'Managing Adult Malnutrition in the Community' has been developed by a multi-profession team of expert practitioners and is endorsed by key organisations, including the Royal College of Nursing, the National Nurses Nutrition Group and the British Dietetic Association (Holdoway et al, 2017). The document is based on clinical experience and evidence alongside accepted best practice, and it includes an updated pathway to assist in the appropriate use of oral nutritional supplements. Health professionals taking over the care of patients who have had a recent stay in hospital, supporting individuals with chronic conditions and those caring for older adults should find it particularly useful.

The guide includes:

- An overview of malnutrition, including its clinical consequences, cost implications, details on the prevalence across healthcare settings and information on key patient groups at risk
- Information on the identification and management of malnutrition, according to risk category using 'MUST' (Elia, 2003)
- Guidance on optimising nutritional intake, including dietary advice and the appropriate use of oral nutritional supplements
- A practical pathway on the appropriate use of oral nutritional supplements in the management of malnutrition.

A number of updated supporting documents are also available, as described below:

- Three leaflets for patients and carers (copies can be downloaded from https://tinyurl.com/y65o3d5h)
  - *Nutrition Drinks* (known as oral nutritional supplements)—red leaflet for those at high risk of malnutrition. This leaflet outlines to patients why they have been prescribed oral nutritional supplements and offers them general advice on getting the most from their supplements
  - *Your Guide to Making the Most of Your Food*—yellow leaflet for those at medium risk of malnutrition and those at high risk along with the red leaflet. This leaflet provides some simple ideas for patients on how they can get the most nutrition from the food they are eating
  - *Eating Well*—green leaflet for those at low risk of malnutrition. This leaflet gives patients advice on how to eat well and keep as healthy as possible
  - *Managing Malnutrition with Oral Nutritional Supplements (ONS)—advice for healthcare professionals*—This is an two-sided A4 printable leaflet that gives health professionals an overview of malnutrition and provides a quick guide to the different types of oral nutritional supplements available and patient suitability, as well as the styles, flavours and formats available. A copy can be downloaded from https://tinyurl.com/y5ktvqus.

The document 'Managing Adult Malnutrition in the Community' and supporting materials are available for free to health professionals, patients and carers via the **www.malnutritionpathway.co.uk** website.

Counting the cost

Working together, learning from others and ensuring that at-risk patients are screened regularly and are offered appropriate nutritional care will not only improve the lives of at-risk groups and older adults in the community and care homes, but also reduce the costs of health and social care by preventing hospital admissions and reducing escalation to greater care needs, falls, infections and pressure ulcers (Elia, 2015; Holdoway et al, 2017; Stratton et al, 2018).

Community nurses are encouraged to build conversations about appetite, dietary intake and hydration into everyday patient contact, review the malnutrition pathway materials and identify ways to integrate nutritional screening and nutritional care into pathways of care, particularly when dealing with those at high risk. The cost of not treating patients in relation to overall quality of life and the financial burden of their greater healthcare needs that result from malnutrition continue to far outweigh the costs of identifying and treating them: it is estimated that the cost of healthcare for a malnourished patient is £5763 per annum (compared to £1715 for a non-malnourished patient) and that social care costs for these individuals are £1645 (compared with £440 for a non-malnourished patient) (Elia, 2015).

Conclusion

Community nurses often provide first-line care for vulnerable groups and are, therefore, ideally placed to play a pivotal role in ensuring that the best nutritional care is provided in the community. Working closely with other community healthcare professionals, community nurses can make a difference in ensuring that nutritional screening and care pathways and resources to base advice on, are in place. **BJCN**

Conflicts of interest: none

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KEY POINTS

- Over 3 million people in the UK are malnourished or at risk of malnutrition
- In order to tackle malnutrition in an increasingly ageing population, screening, treatment and prevention need to be improved
- Nutritional deficiencies, unintentional weight loss and frailty are not inevitable consequences of ageing and disease
- The effects and clinical consequences of malnutrition are wide ranging and place demands on the individual and their carers as well as on nurses, GPs and other members of the healthcare team
- Dietary advice and oral nutritional support are important first-line treatments for patients at risk of malnutrition.

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CPD REFLECTIVE QUESTIONS

- Are you screening older patients and those most at risk for malnutrition using a validated screening tool?
- Has nutrition been integrated into your care pathways?
- Do you have care plans for staff to follow for those who are malnourished or are at risk of malnutrition?
- Do members of your team need further training on identifying and managing malnutrition?

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