The Importance of Appropriately Managing Malnutrition

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Malnutrition is a serious problem, with more than three million people in the UK either malnourished or at risk of malnutrition.[1] Most at risk of malnutrition are those with chronic diseases living in the community and care homes; namely those who have been recently discharged from hospital, people living alone and the elderly. Around 98% of malnutrition exists outside the hospital setting.[2]

Malnutrition in England is currently estimated to cost the public purse £19.6 billion per year.[2] Consequently, improving nutritional care for individuals who are malnourished, or at risk of malnutrition, could have considerable cost-saving implications, including:

- Fewer hospital admissions and readmissions
- Shorter length of stay in hospital
- Fewer healthcare needs in the community, such as GP visits and care at patients' homes.[3]

Managing malnutrition effectively

Good nutrition is important all through life – but never more so than in old age, when a healthy diet is a vital part of any strategy to help older people stay active, disease-free and independent. Ageing can itself have a significant and adverse impact on nutritional status, exacerbating the decline in physiological and psychological functions that occur in later life. Fluid balance alterations can commonly occur in the elderly, leading to a risk of dehydration. Malnutrition (which can be both a cause and effect of ill health) and inadequate dietary and fluid intake in old age is a significant risk, which can result in numerous ailments, such as decreased muscle mass, reduced cognitive function, delayed wound healing, constipation, dizziness and increased risk of falls, increased hospital admissions and readmissions, and increased mortality.[3, 5, 6] Yet all too often malnutrition and dehydration are not recognised, let alone considered as a serious and very common problem. Insufficient access to water, poor support with eating and drinking and the unavailability of oral nutritional supplements (ONS) are unacceptable occurrences that can play a role in the development of malnutrition.[7]

All care givers, whether in care homes or in other parts of the community, should be able to clearly identify signs of malnutrition and dehydration. However, misconceptions still exist, even on the definition of 'malnutrition'; for example, malnutrition and/or dehydration may also be present in some elderly patients that present as overweight or obese. Patients, carers and families should be trained so that they are able to understand the signs of malnutrition, its causes and its potential consequences. Particular care is required for those patients who may need higher levels of support, i.e. elderly patients with dysphagia or living with dementia. The first step should always be to identify individuals who are malnourished, or at risk of malnutrition, using a validated nutritional screening tool, such as the 'Malnutrition Universal Screening Tool' ('MUST').[8] Malnutrition affects about one in 20 individuals in the general population and one in three in care homes,[2] so it is especially important to screen residents of the latter. It is also important that health and care staff, including domiciliary care providers, identify nutritional risk in other settings including individuals' own homes, day centres, extra care and social housing.

What recognised guidance is in place?

Following and implementing recognised guidance provides a suitable strategy for combating malnutrition. Care givers should establish whether a care plan is in place and, if so, that it is actually being followed and acted upon. The provision of healthy, nutritious food should always be the first choice for managing malnutrition. However, it is not always possible for people to eat enough food, or ingest the nutrients they require, to keep their body healthy. Oral nutritional supplements (ONS) can partially, or wholly, replace a normal diet to provide patients with the essential nutrients they need when food alone is not enough to meet their daily nutritional requirements.

The National Institute for Health and Care Excellence (NICE) Quality Standard (QS24),[9] NICE Clinical Guidance (CG32)[10] and the Managing Adult Malnutrition in the Community Pathway[11] all recommend a multidisciplinary approach to the identification of people at risk of malnutrition and provision of timely nutrition support – whatever that may be, from advice on eating well and food fortification to obtaining a nutritional supplement on prescription – for all those who need it. It is important that care givers are made aware of the tools available to them; however, it seems that awareness of them is often low.

NICE QS24 recognises that ONS are a clinically effective way to manage disease-related malnutrition when food alone, however nutritious, is not sufficient to meet a person's dietary needs: *"It is important that nutrition support goes beyond just providing sufficient calories and looks to provide all the relevant nutrients that should be contained in a nutritionally complete diet. A management care plan aims to provide this and identifies condition specific circumstances and associated needs linked to nutrition support requirements."*[9] QS24 also advises that care should be taken when providing food fortification alone, which tends to supplement energy and/or protein without necessarily providing sufficient or adequate micronutrient and mineral levels.[9]

CG32 states: *"Oral nutrition support includes any of the following methods to improve nutritional intake: fortified food with protein, carbohydrate and/or fat, plus minerals and vitamins; snacks; oral nutritional supplements; altered meal patterns; the provision of dietary advice."*[10] It also states: *"Healthcare professionals should ensure that the total nutrient intake of people prescribed nutrition support accounts for energy, protein, fluid, electrolyte, mineral, micronutrients and fibre."*[10]

It is important that ONS are prescribed and used when needed. They are typically used in addition to the normal diet when diet alone is insufficient to meet daily nutritional requirements, and offer a clinically and cost-effective way to manage malnutrition.[11, 12, 13] A recent randomised study looking at malnourished care home residents revealed that ready-made liquid ONS can improve quality of life and nutritional intake more effectively than dietary advice alone.[14] The use of ONS for three months or more amongst malnourished patients, living in a care home setting or community, offers a median cost saving of 5%, along with improved clinical outcomes; such as improved quality of life, reduced infections, reduced post-operative complications, fewer pressure ulcers, fewer falls and better wound healing.[15, 16] To support this, meta-analysis of trials has shown that provision of nutritional supplements to malnourished patients reduced wound breakdown by 70% and mortality by 40%.[17]

Patients requiring ONS range from those who are critically ill to those with inherited genetic disorders to those with chronic illnesses. These may include cancer, kidney failure, cystic fibrosis, diabetes, dysphagia, loss of muscle mass and respiratory disease. In addition, specialist products may be required for people with inborn errors of metabolism, protein sources to avoid a food allergy, problems with absorption or malnutrition of normal foods, or for enteral nutrition administered via nasogastric tube (NGT) or percutaneous endoscopic gastrostomy (PEG). ONS can be an essential part of medical management and may be required either for life or for short periods of time, depending on individuals' clinical circumstances. In these cases, they guard against malnutrition until a normal diet can be resumed. They can be a lifeline in the community, where round the clock care may not be available.

Healthcare professionals are best placed to ensure patients are treated appropriately and to evaluate whether patients need ONS and if so, for how long they should be taken. Prescribed appropriately, ONS can prevent the complications associated with malnutrition and significantly improve patients' health outcomes. They are evidence-based nutritional solutions for disease-related malnutrition[17] and are highly regulated.[18]

Best practice principles to help address malnutrition

The Malnutrition Task Force has devised five best practice principles to help address malnutrition in care homes:[7]

- Raising awareness among residents, relatives and staff to support prevention and early treatment of malnutrition
- Working together within the care home and with external members such as relatives, GPs, therapists, and across other care homes
- Identifying malnutrition early. Screening and regular assessment must be carried out to establish residents' nutritional needs
- Delivering personalised care, support and treatment
- Monitoring and evaluating residents' weight, improvements and outcomes.

Personalised care and support is the best way forward

Patients' nutritional needs will inevitably vary in response to various factors, ranging from their clinical condition, to their particular dietary needs, to their individual taste preferences. Dietitians are able to provide personalised support for patients and can ensure that care homes and other settings have an appropriate nutrition policy and training scheme in place for staff, enabling them to provide the most appropriate nutritional care for each patient, whatever their circumstances. For example, a stroke victim, who prior to the stroke might have been able to eat and drink what they liked, may find movement difficult and thus be sitting for much of the time after the stroke. If nutrition or hydration needs are not met, there is a risk of urinary tract infection, potentially resulting in the formation of a pressure ulcer.

Bert is an 85-year-old stroke survivor who developed dysphagia, aphasia and right-sided hemiparesis. Immediately after his stroke Bert required nasogastric feeding, though on discharge from hospital he was managing a puree diet and stage 2 fluids. There was no cause for concern regarding his nutritional intake before discharge and no community follow up was arranged. Before his stroke Bert lived independently, but he now lives in a care home and requires assistance for many tasks, including eating and drinking. However, despite encouragement from the care home staff, his oral intake became poor and he suffered from recurrent urinary tract infections (UTI) and a sore, red sacral area. Reduced oral intake in Bert's case meant that further intervention was required. Consequently, he was referred to the community dietitian for further assessment and support.

Financial impact

While the human cost of malnutrition can be great, so too can the financial impact, as costs continue to rise and become increasingly exacerbated by an ever ageing population. The cost of managing care home residents diagnosed with malnutrition has been shown to be twice that of screening and monitoring the general care home population.[19] Disease-related malnutrition is estimated to cost the public purse £19.6 billion per year in England alone,[2] which is more than 15% of the total public expenditure on health and social care.[2] About half of this is accounted for by older people (>65 years) and the other half attributed to younger adults and children. NICE has calculated that the delivery of better nutritional care could be the sixth largest potential cost saving available to the NHS.[20] A 2015 report from the British Association for Parenteral and Enteral Nutrition (BAPEN) and the National Institute for Health Research Southampton Biomedical Research Centre (NIHR) stated that it costs three times more NOT to treat or manage a malnourished patient compared to one without malnutrition, equating to £5,329 per patient.[2]

It also found that implementing NICE CG32 and QS24 in 85% of patients at medium and high risk of malnutrition would lead to a net saving of £172.2-£229.2 million, which equates to £324,800-£432,300 per 100,000 people.[2]

Moreover, a recent randomised trial involving one of the oldest populations subjected to a cost-utility analysis, suggests that use of ONS in care homes are cost-effective relative to dietary advice.[21]

The potential impact of recent restrictions of ONS

Yet despite the benefits associated with ONS, some clinical commissioning groups (CCGs) have introduced restrictions to prescriptions. Since the end of 2015, some GPs in certain geographical areas have not been able to prescribe ONS for residents in catered care and nursing homes, although this policy does not include residents fed via a percutaneous endoscopic gastrostomy tube (PEG tube). Such restrictions to ONS arise as commissioners try to work within increasingly stringent budgets. However, these policies are misguided and although well intentioned, both fly in the face of the existing evidence and fail to consider long-term outcomes. Both the Managing Adult Malnutrition in the Community Pathway[11] and NHS England's Commissioning Excellent Nutrition and Hydration (2015-18)[22] clearly indicate that ONS should be used in combination with food as part of the management of malnutrition. Any restrictions to nutrition and hydration standards will necessitate much more rigorous monitoring and evaluation within care homes in the months and years to come.

Furthermore, a systematic review has demonstrated that there is very little evidence of efficacy of treating malnutrition with food-based strategies alone compared to the use of ONS.[23] A number of favourable clinical outcomes were also associated with use of ONS, including improved quality of life, reduced minor post-operative complications, reduced infections and reduced falls.[23] Other studies also highlight the cost-effectiveness of ONS in treating malnutrition.[16, 24, 25] A systematic review of the cost and cost-effectiveness of using standard ONS in community and care home settings found that cost-savings were demonstrated for short-term use of ONS (up to three months), with a median cost saving of 9.2% (P<0.01). Studies investigating cost savings for the use of ONS for 3 months or more found a median cost saving of around 5%.[24]

Some recent statements from some CCGs have seemed to suggest that the provision of fortified food is a like-for-like replacement for ONS. However, this approach is over-simplified, and does not adequately take into account individuals' clinical requirements nor the clinical assessment made by the healthcare professional. As such, it results in inequity of care for patients whose health outcomes may, as a result, become determined by where they live. The better approach would be to ensure that patients receive appropriate nutritional support, based on their particular circumstances, wherever they are. This would comply both with existing best practice national guidelines and the guiding principle in CCGs' own constitutions: *"access to services based on clinical need"*.

The problem is compounded by PrescQIPP's publication *'Fabulous Fortified Feasts'*,[26] a collection of simple recipes which is recommended by some of the CCGs who have recently restricted ONS. Whilst it is undoubtedly true that the provision of nutritious food is essential to combat malnutrition, a generic booklet such as this is not appropriate for all patients and all clinical conditions. It is important to note that the recipes are not nutritionally complete and, consequently, patients will not receive their full range of nutrients, including micronutrients, without further supplementation, either from other foods or from ONS. Users of the guide should also be clear about the underlying reason for malnutrition before choosing a recipe, as some of them may be inappropriate for patients living with some disorders or conditions; for example, peanut butter and banana flapjacks should not be provided for patients suffering from dysphagia. This is a particularly important consideration in the context of community care and it is not known how carers who are untrained in nutrition will receive the information and support they need to be able to best manage the individuals in their care.

Conclusion

Malnutrition is a serious problem, estimated to cost £19.6 billion every year in England alone. Although CCGs are under increasing pressure to cut costs, a blanket approach using first-line measures is unlikely to be appropriate for all patients in all circumstances. Patients with co-morbidities, in particular, whether they are in the home or elsewhere, most stand to benefit from nutritional advice that is uniquely tailored to their own clinical circumstances. Patients who take ONS should be regularly monitored and reviewed and ONS should be discontinued when they are no longer needed. The full implementation of high-quality pathways of nutritional care and the recognised role dietitians can play in evaluating a patient's need for ONS can manifest in short and long-term savings for health and social care services.

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