Managing Adult Malnutrition in the Community

Falls Fact Sheet

Integrating nutrition into falls pathways

A HEALTHCARE PROFESSIONAL FACT SHEET

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Older people are more vulnerable and likely to fall especially if a long term health condition is present or if they are frail. Every year more than 1 in 3 people over 65 suffer a fall that can cause serious injury and even death[1]. Nutritional status is an independent predictor of falls in older people in the community and improvement of nutritional status[2] has been found to reduce falls risk[3].

Falls represent the most frequent and serious type of accident in people aged 65 years and older[4]. Falls and fractures in people aged 65 years and over, account for over 4 million hospital bed days each year in England alone[5]. With 70,000 hip fractures annually arising from falls, it is a leading cause of accident-related mortality in older people[5].

In the UK the cost of each individual fall has been estimated to be in excess of £1,500. Major falls require more hospital admissions and cost in the region of £5,000 per episode[6]. As falls are estimated to cost the NHS a staggering £2.3 billion per year[7], prevention is key.

INDICATORS OF FALLS RISK

- **Weight loss and/or low BMI (at medium or high risk of malnutrition)[3] - indicating the need for good nutritional care**
- **Reduced muscle mass and strength[8]**
- **Low Vitamin D status[9]**
- **Dehydration[8]**
- **Low blood pressure, weakness and/or dizziness (including that associated with medications)[8]**
- **Infections - including a bladder, urinary tract or chest infection[8]**
- **Delirium and/or dementia[8]**
- **Hypoglycaemia[10]**
- **Extrinsic factors[8] e.g. poorly fitting footwear, walking on uneven paving**
- **Physiological conditions associated with ageing[8] e.g. natural deterioration in eyesight which make it difficult to see and step over potential hazards**

At risk groups can include those with frailty, neurological conditions, dementia and multimorbidities.

KEY ACTIONS

- **Review falls and frailty pathways to ensure they consider nutrition and hydration, the identification and management of malnutrition and indicators of falls risk (see above)**
- **Assess the nutrition and hydration needs of your patients at risk of falls, ensure they are consuming protein at each meal and after exercise, and you have processes in place to monitor food and fluid intake**
- **Initiate nutritional screening, using a validated tool such as the Malnutrition Universal Screening Tool ('MUST') at falls clinics, frailty clinics, after discharge from hospital (www.bapen.org.uk/pdfs/must/must_full.pdf)**
- **Where patients are identified as 'at risk' of malnutrition follow the 'Managing Adult Malnutrition in the Community' pathway which provides guidance and resources including:**
  - **dietary advice for patients including how to enrich (fortify) food choices and use nourishing drinks (www.malnutritionpathway.co.uk/library/pleaflet_yellow.pdf)**
  - **effective use of oral nutritional supplements (ONS) for frail patients where dietary intake is restricted due to poor appetite or medical conditions (www.malnutritionpathway.co.uk/library/pleaflet_red.pdf)**
- **Liaise with your local dietitians and nutrition nurses to explore the possibility of nutrition education for team members**

Why is it important to acknowledge malnutrition in this group?

Malnutrition is associated with an increased risk of falls[3]. Falls can lead to[4]:

- **broken bones**
- **injury**
- **pain**
- **loss of confidence**
- **distress**
- **loss of independence**

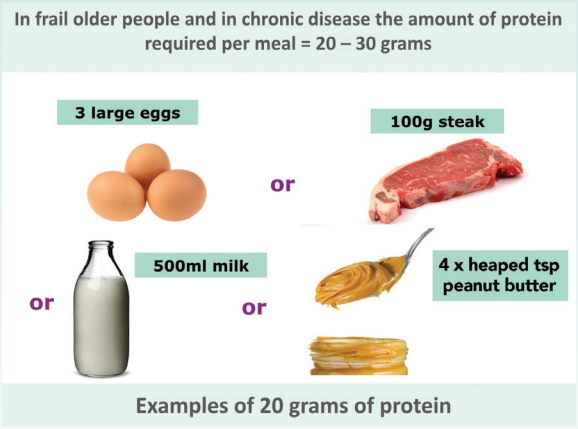
All of the above can adversely impact on an individual's mobility, contributing to more rapid loss of muscle mass (sarcopenia), ultimately fuelling the frailty cycle and leading to[11]:

- **multiple hospital admissions/readmissions**
- **increased length of hospital stay**
- **impaired recovery from illness or surgery**
- **poorer clinical outcomes**
- **reduced ability to self-care**
- **escalation from residential homes to nursing home**

This not only impacts on an individual's quality of life but increases costs and places additional burden on the health and social care system. The prevalence of malnutrition increases with the severity of frailty and malnutrition increases the risk of a fall.

Why are older people and the elderly particularly vulnerable to malnutrition?

- Many older people are affected by multimorbidities making this group particularly 'at risk' of malnutrition
- Many chronic conditions can affect the ability or desire to eat, predisposing individuals to malnutrition
- Ageing and frailty can affect our activities of daily living and mealtime routines which can lead to a reduced nutritional intake
- Eating and drinking may become more difficult due to physical challenges for example the ability to cook, use cutlery, chew, swallow or see food and drink
- Appetite and taste sensations alter as we age, food and drinks may begin to taste less palatable and less pleasurable
- Satiety, the feeling of fullness, occurs earlier as we age[12]
- Nutritional requirements alter as we age



Examples of 20 grams of protein

Protein and energy

- Good nutrition, especially adequate protein and energy intake, helps limit and treat age-related declines in muscle mass, strength and functional abilities[13].
- Protein recommendations are[13]:

	Protein requirements per kg body weight per day	Daily protein requirements based on average weight of a male and a female	
		70kg male	55kg female
Healthy older people	1.0 - 1.2g	70-84g	55-66g
Older people who are malnourished or have an acute/chronic condition	1.2 – 1.5g	84-105g	66-83g
Those with severe illness/injury	>1.5g	>105g	>83g

- Multiple studies have indicated that 20–30g of high-quality protein is necessary at each meal for optimum muscle protein synthesis in older adults[14-18]
- Protein in combination with exercise (see page 4) has been shown to be particularly beneficial in increasing muscle synthesis[19]. Regular protein is recommended after exercise[13]
- Those at risk of falls and/or frailty should be encouraged to consume protein at each meal and after exercise - refer to a dietitian for further advice

Vitamin D

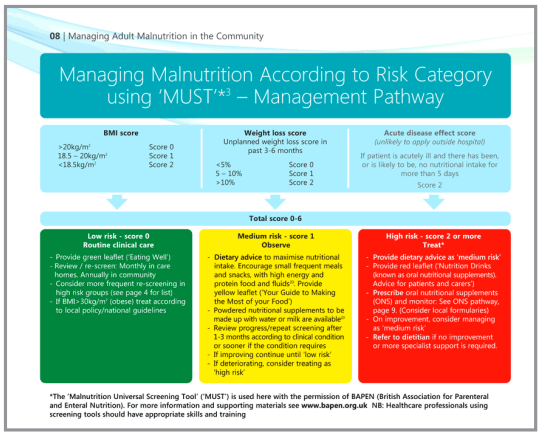
- Deficiencies / low vitamin D status should be corrected with vitamin D supplementation to reduce falls risk[20]
- Vitamin D insufficiency and deficiency should be treated as per local/national guidance
- To prevent deficiency, it is recommended adults living in the UK should take a daily supplement containing 400 international units (IU) [10 micrograms] of vitamin D in the winter months and those with an increased risk of vitamin D deficiency take a daily supplement thoughout the year[21].

Good nutritional care

Incorporating nutrition screening and assessment into falls pathways is crucial if we are to reduce the financial burden of falls and improve the health outcomes of those who are at risk of falls.

Screening for malnutrition

Screening should be undertaken by a trained professional using a validated tool such as the Malnutrition Universal Screening Tool ('MUST')[22].



Management of malnutrition

People at risk of malnutrition should have a care plan which:

- records risk and identifies underlying causes
- sets clear goals of the intervention (e.g. improving nutritional intake, reducing risk of falls, improving strength) which have been agreed with the individual/carer
- monitors progress against goals which can be modified appropriately

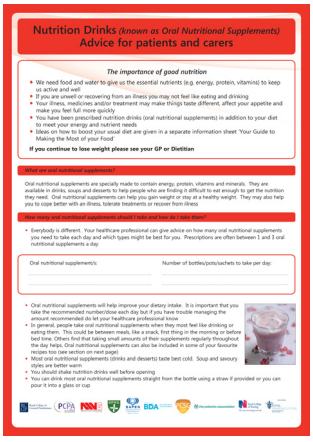
Dietary advice

Consider dietary options that help patients to meet their nutritional requirements and prevent malnutrition developing:

- give advice on fortifying food by adding extra butter, cream, cheese or milk powder
- 'A Guide to Making the Most of Your Food' provides some simple ideas on fortifying foods **(www.malnutritionpathway.co.uk/library/pleaflet_yellow.pdf)**

For patients who have smaller appetites and/or eating problems encourage small frequent meals and snacks with a focus on nutrient rich foods and fluids.

Oral nutritional supplements (ONS)



- NICE guidance recommends considering ONS, in addition to diet, to improve nutritional intake for people who can swallow safely and are malnourished or at risk of malnutrition[23]. There is good quality evidence to support their use[24]
- Particular consideration should be given to the prescription of ONS in frail elderly people where dietary intake is restricted due to poor appetite or medical conditions
- When prescribing ONS consider social, clinical and practical issues that may affect adherence including cost, affordability, palatability, dexterity and ability to make up a powdered product - a ready to use product might be more appropriate
- Short-term use of ready to drink multi-nutrient ONS (12 weeks post discharge), in combination with dietary advice, significantly decreased falls in malnourished older adults[25]
- The malnutrition pathway and resources aim to assist professionals in providing appropriate management of individuals including guidance on monitoring, escalation management and starting/stopping ONS:
  - A patient/carer information leaflet is available to provide advice on fortifying foods (**www.malnutritionpathway.co.uk/library/pleaflet_red.pdf**)
  - A quick guide to the different styles, flavours and formats of ONS available to treat malnutrition is also available for healthcare professionals (**www.malnutritionpathway.co.uk/library/ons.pdf**)

Hydration

- Dehydration can lower blood pressure and cause weakness and dizziness[26] thus increasing the likelihood of falling
- Practical strategies to improve fluid intake have been shown to be effective in reducing falls and are available as best practice examples[27]

Ensure you have processes in place to monitor fluid intake and signs of dehydration and actively promote fluid intake, e.g. through documentation and making fluids visible, attractive and accessible.

Exercise

Good nutrition should go hand in hand with an exercise programme to maximise its effect:

- A tailored exercise programme can reduce falls by as much as 54%[28]
- Evidence shows that exercise programmes designed to improve strength and balance delivered over several weeks or months can lead to a reduction in falls[1,29]
- Older people should be encouraged to participate in falls prevention programmes[6]

A team approach

Providing good nutritional care is rarely one person's responsibility, it is therefore important to ensure that all team members dealing with patients who have fallen, or are at risk of a fall, are engaged and involved in the provision of good nutritional care:

- Review falls and frailty pathways to ensure they include identification of nutritional issues and recommended actions, including information on where, and from whom, further help and advice can be sought
- In hospitals and care homes consider carrying out an audit of falls and nutritional status that may change practice for the better. Share this evidence with your local falls group and agree actions to improve care and reduce the risk of falls
- Ensure team members are educated on nutritional screening, using a validated tool such as 'MUST' :
  - liaise with your local dietitians and nutrition nurses – establish if they can they offer any education on screening, malnutrition, sarcopenia and diets for older people
  - try on-line training tools such as **www.bapen.org.uk/e-learning-portal/nutritional-screening-using-must/virtual-learning-environment**
- Discuss with team members when and where nutritional screening can be implemented - such as at falls clinics, frailty clinics, on admission to hospital or care home and at GP check-ups

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