Managing malnutrition: appropriate interventions

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'Good nutritional care is a vital part of patient management and intervention can include the provision of nutritious food, dietary counselling, oral nutritional supplements (ONS), tube feeding and parenteral nutrition.'

Malnutrition (or under-nutrition) is a state of nutrition in which a deficiency or excess (or imbalance) of energy, protein and other nutrients causes measurable adverse effects on tissue/body form (body shape, size and composition) and function and clinical outcome (British Association for Parenteral and Enteral Nutrition [BAPEN], 2018).

Malnutrition affects at least three million people in the UK, with 93% of these living in the community (BAPEN, 2018). It has an estimated cost of £19.6 billion in England, and can lead to adverse effects if unidentified and untreated, such as increased infections, wounds, complications and mortality, leading to greater healthcare use through increased hospital admissions, longer hospital stays, more GP visits and increased prescription costs (Stratton et al, 2018). The large costs of this condition are mainly due to poorer patient outcomes leading to greater healthcare use by malnourished patients when untreated. The high costs are not because of expenditure on strategies to manage malnutrition, estimated as less than 2.5% of the overall cost of malnutrition (Stratton et al, 2018).

Conversely, managing malnutrition can result in improvements in patients' physical function, such as strength, quality of life and clinical outcomes, and reductions in healthcare use (such as hospital stays and admissions) (Stratton et al, 2018).

Identifying and managing malnutrition can therefore improve lives and save money (Stratton et al, 2018). The first step in nutritional risk identification is nutritional screening. This is recommended by the National Institute for Health and Care Excellence (NICE, 2006) and BAPEN (2021). NICE and BAPEN recommend that all patients should be screened at first contact (both in- and outpatients), with regular screening thereafter being implemented, as clinical condition and nutritional status can change. Post screening, nutritional intervention and monitoring should be put in place as indicated for the individual patient (BAPEN, 2021).

There are many tools available to support screening, including 'MUST' (Malnutrition Universal Screening Tool; BAPEN, 2020) and R-MAPP (Remote - Malnutrition APP) (Krznaric and Bender, 2020), which incorporates 'MUST' and the SARC-F tool, a simple and easy five-item questionnaire (strength, assistance with walking, rise from a chair, climb stairs and falls) for screening sarcopenia in older adults. In the author's clinical opinion, as key front line healthcare professionals, community nurses are well placed to screen patients for nutritional risk.

The next step in managing malnutrition is intervention when indicated through screening and assessment. Good nutritional care is a vital part of patient management and intervention can include:

- Provision of nutritious food
- Dietary counselling
- Oral nutritional supplements (ONS)
- Tube feeding
- Parenteral nutrition

(Medical Nutrition International Industry [MNI], 2012).

ONS are an effective and non-invasive solution to manage malnutrition in patients who are able to consume some normal food, but not enough to meet nutritional requirements (MNI, 2012).

ONS are widely used within the acute and community health settings. They come in a variety of preparations, including liquids, semi-solids or powders, providing a range of macro and micronutrients. They are commercially produced and prescribed to improve nutritional status, treat malnutrition, and have been proven to have good outcomes when used appropriately (Rabess, 2021). Evidence from the highest quality

Useful resources...

- RMAPP app: www.rmapptool.com/en
- 'MUST': www.bapen.org.uk/pdfs/must/must_full.pdf

studies (systematic reviews) suggest that ONS can (Rabess, 2021):

- Reduce mortality rates
- Increase overall energy intake
- Support weight gain in a variety of clinical conditions
- Decrease complications and length of hospital stay.

However, to maximise both clinical and cost-effectiveness, it is important to achieve good compliance (Hubbard et al, 2012). Compliance to ONS can vary widely, from 37–100% (Hubbard et al, 2012), and can be affected by many factors, including taste, variety and palatability (Nieuwenhuizen et al, 2010). Personal factors also need to be considered, such as dietary preferences. For example, if a patient dislikes milk or milky drinks, a juice-style ONS is likely to be better accepted. *Figure 1* provides some factors and questions to consider before initiating a patient on an ONS.

- Does your patient suffer with taste fatigue or taste changes? Do they dislike milkshake-style drinks? Consider a juice-style ONS.
- Do they have high protein needs? For example, chronic obstructive pulmonary disease (COPD), wounds, postoperative patients, some types of cancer, older people with frailty, patients who have been in ICU, patients with sarcopenia. Consider a high protein ONS.
- Is there a history of gastrointestinal (GI) symptoms of malabsorption or maldigestion, such as diarrhoea, steatorrhoea, nausea/vomiting/reflux? Consider a peptide-based ONS
- Does the patient have difficulties with food preparation and/or poor hand dexterity? If so, a powdered ONS is likely to be inappropriate and a ready-to-drink ONS should be considered
- Could larger volume supplements be a challenge for your patient? A compact style (125ml), ready-to-drink ONS may be better tolerated. Only use a powdered style ONS if you have assessed the ability of the patient to make it up
- What is the patient's usual bowel habit? Does the patient have a history of constipation and low dietary fibre intake? Would they benefit from an ONS with added fibre?
- Does the patient have dysphagia? Ensure that the patient has an appropriate modified consistency directed by a speech and language therapist.

Figure 1.
Factors to consider when introducing an ONS.

CONCLUSION

In summary, identifying patients with, or at risk of malnutrition, and intervening with nutritional support as required can lead to positive clinical and economic outcomes. Nutritional support can include a variety of management strategies, including ONS when indicated.

ONS have been shown to be clinically effective in the management of disease-related malnutrition. However, to maximise both clinical and cost-effectiveness, it is important to achieve good compliance. Compliance can be affected by a range of parameters, including taste, variety and palatability. Personal factors and preferences also need to be considered, such as offering a juice-style ONS if a patient dislikes milkshake-style ONS. Such strategies can support compliance with ONS, helping to achieve desired outcomes. JCN

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