Managing malnutrition: the paradox of thrift?

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Shailen Rao examines how identifying and treating patients at risk of malnutrition, instead of focusing solely on prescribing savings, could help to save the NHS money.

Malnutrition appears on the radar of commissioners largely as a result of a medicines management drive to reduce expenditure on oral nutritional supplements (ONS). ONS are typically used in addition to the normal diet when diet alone is insufficient to meet daily nutritional requirements. ONS not only increase total energy and protein intake, but also the intake of micronutrients.

However, there is a lot more to this complex subject than meets the eye and in fact by using scarce resources to identify prescribing savings we may be missing an opportunity to improve management of malnutrition and make significant savings in the wider health economy. This is something akin to the ‘paradox of thrift’, popularised by John Maynard Keynes, where excessive belt tightening leads to an unintended rise in overall costs.

What do we mean by malnutrition?
The term malnutrition refers to when ‘a deficiency in energy, protein and/or other nutrient results in measurable adverse effects on tissue/body form, composition, function or clinical outcome’. The term malnutrition can be used to describe undernutrition as well as overnutrition, nutrition deficiencies or imbalances. For the purpose of this article the term malnutrition will be used to describe undernutrition only.

Table 1. Facts about malnutrition

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<thead>
<tr>
<th>Fact</th>
<th>Description</th>
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<tr>
<td>1</td>
<td>The health and social care costs associated with disease-related malnutrition is estimated to be in excess of £13 billion per annum.</td>
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<td>The cost of managing malnourished individuals is more than double that for nonmalnourished individuals and in general people with malnutrition have higher healthcare utilisation costs (higher hospital admission and readmission rates, longer length of stay in hospitals, increased use of antibiotics and more GP visits).</td>
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<td>3</td>
<td>The additional healthcare cost of treating high and medium risk patients (compared to those at low risk) has been estimated at £5.3 billion – compared to a direct NHS cost of £4.2 billion for obesity.</td>
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<td>The prevalence of malnutrition (see Table 2) is widespread among all care and residential settings and as such represents a major public health and commissioning issue in primary care.</td>
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Medicines management focus

In recent years medicines management teams and prescribers have increasingly targeted the prescribing of ONS as an area to make savings. The Quality, Innovation, Productivity and Prevention (QIPP) agenda has further heightened this focus. Indeed a QIPP initiative on the NHS Evidence website, conducted in South Warwickshire, demonstrated a £48 000 saving per 100 000 population resulting from a dietitian-led review of patients already on ONS.

However, by focusing solely on prescribing savings we could be missing the opportunity to use the resources to make much bigger quality and efficiency improvement across the system as a whole.

Closer examination of the evidence and national guidance such as NICE CG32 Nutrition Support in Adults would suggest that an effective method of saving the NHS money would be to ensure we find and treat patients at risk of malnutrition, particularly those at highest risk. Some facts about malnutrition are outlined in Table 1. The prevalence of and consequences of malnutrition are summarised.
MANAGING MALNUTRITION

Prevalence
- care homes: 30–42% of recently admitted patients
- hospitals: 28% of admissions
- BMI >20: 5% (10)
- elderly: 14% (11)

Consequences
- secondary care: • ↑ complications (12,14)
- • ↑ length of stay (12,14,15)
- • ↑ readmissions (16,17)
- • ↑ mortality (12,15)
- • ↑ prescribing costs (non-nutrition)

Table 2. Prevalence and consequences of malnutrition in different settings

Contractual consequences
Another important factor when assessing value for money with regards to the treatment of malnutrition is consideration of local contractual agreements with ONS and tube feed manufacturers. More often than not procurement of tube feeds is led at a local level by provider acute trusts. Over time providers have been able to secure large discounts for tubes and associated products and services offered by manufacturers on the assumption that ONS prescribing in the community will offset such discounts. Understanding of the contract as a whole (rather than viewing ONS in isolation) is required in order to make an informed decision on what value each health economy is receiving from its investment.

Invariably, health economies will find that they are getting better value from their current provider than they might have imagined. Given the complex nature of these contracts, simply cutting expenditure on ONS in isolation could have unintended consequences by impacting on the contract for tube feeds. The loss of revenue from ONS in one health economy could make the contract as a whole unattractive to loss leading nature of the tube feed element.

While good value and efficient procurement are to be encouraged, it is important for those involved in commissioning and decision making for ONS and malnutrition in general to be fully aware of the consequences of any action taken. Smarter commissioning may well yield the double benefit of ensuring more appropriate use of ONS along with proactive identification of those most likely to benefit.

Guidance and evidence for the management of malnutrition
There is good evidence to show that appropriate management of malnutrition with ONS can lead to clinical and health resource benefits (see Table 4).

Table 3. Key priorities from NICE CG32

Key clinical priorities
- screening for malnutrition or the risk of malnutrition should be carried out by healthcare professionals with appropriate skills and training
- all hospital inpatients on admission and all outpatients at their first clinic appointment should be screened
- people in care homes should be screened on admission and when there is clinical concern
- nutrition support (includes dietary advice to optimise food intake as well as prescribed ONS) should be considered in people who are malnourished

Key organisational priorities
- all healthcare professionals should receive education and training on the importance of providing adequate nutrition
- healthcare professionals should ensure that all people who need nutrition support receive co-ordinated care from a multidisciplinary team
- all acute hospital trusts should employ at least one specialist nutrition support nurse
- all hospital trusts should have a nutrition steering committee working within the clinical governance framework

Table 4. Evidence for the clinical and health resource benefits from appropriate management of malnutrition with ONS

- 27% reduction in admission rates and readmission rates
- reduce length of hospitalisation by 4.5 days
- reduce complications such as pressure ulcers by 19% and antibiotic use by 56%
- clinical benefits in the community are typically seen with 2–3 months supplementation (1–2 ONS servings daily)

The NICE Cost Saving Guidance estimates that implementation of NICE CG32 would release a net saving of over £28 000 per 100 000 population (recently upgraded to £78 100 per 100 000 in the NICE Quality Standard Nutrition Support in Adults) – the third highest of all NICE clinical guidelines. This savings figure includes additional investment in services such as screening programmes and is based on a broad community-wide screening and treatment program. It is quite possible that prioritising higher risk groups such as those with long-term conditions such as COPD, dementia and those with pressure ulcers could lead to even higher savings.

While the CG32 sets the standard for treatment, the recently published Managing Adult Malnutrition in the Community provides practical advice on identification and management of individuals at risk of disease-related malnutrition. It has been agreed by a multi-professional panel including representation from national medical and pharmacy bodies. It provides a useful framework suitable for adaptation by local health economies and includes a pathway for the appropriate treatment using ONS. For high-risk patients – based on the Malnutrition Universal Screening Tool (MUST) score – it advises on strategies to optimise food intake where possible and where ONS treatment is required, and it suggests a 12-week treatment period with a view to stopping when nutritional goals are met.

We are being encouraged by senior NHS leaders to focus more on the ‘I for innovation’ in QIPP and to consider sys-
trend changes rather than salami slicing of individual budgets if we are to realise the ambitious productivity targets. While there are undoubtedly short-term efficiency gains to be made in reducing inappropriate prescribing for the treatment of malnutrition, a more holistic and innovative approach to the management of malnutrition is more likely to lead to a reduction of the significantly more costly consequences of not treating malnutrition.

Worse still, a head-long rush to release quick savings from prescribing budgets may actually stop some high-risk patients receiving appropriate treatment with clinically and financially disastrous outcomes. Focusing on the inputs (prescribing costs) rather than outcomes, eg hospital admission and slower healing of wounds, is indeed more likely to cause problems.

**Practical implementation**

Practical steps that can be put in place to manage patients appropriately are outlined in Table 5.

**Conclusion**

Changing demographics and tightening finances require us to think outside the box. A narrow focus on prescribing costs alone is a missed opportunity to do more to release wider resources.

The management of malnutrition is a great example of how those working in the area of medicines and prescribing within the brave new world of Clinical Commissioning Groups (CCGs) can shift the focus from simple silo budget management to one where a more holistic and judicious approach to investing to achieve outcomes can reap greater benefits – simultaneously improving outcomes for patients while also making good use of scarce resources. For that possibility to be realised, individual parts of the system will have to work together as never before and demonstrate a more sophisticated approach to investing in outcomes rather than inputs.

As we have highlighted in this article the individual components of the roadmap already exist. The management of malnutrition represents an ideal opportunity for clinicians and managers with the vision to implement meaningful changes to services to make an impact on care as well as the bottom line.

- reduce wastage of ONS – most patients should not be on ONS for more than 12 weeks without review; instigate regular review points to ensure that patients are taking the ONS and that they are receiving clinical benefit
- prioritise patients at high risk of malnutrition first (eg patients in residential homes and in patients with COPD, dementia and pressure ulcers); this can be done by simple MUST screening, which can be conducted by care home staff, practice nurses, district nurses, community pharmacists, etc.
- review and audit patients on ONS – check that ONS use is still appropriate
- integrate the management of malnutrition into care pathways for long-term chronic diseases, eg pathways for COPD and dementia, as well as developing a separate pathway for malnutrition
- adopt the national malnutrition pathway and devise an implementation strategy
- implement practice-based education to increase awareness and knowledge in this topic
- commissioners should take the opportunity to review the whole contract and commission rather than procure for malnutrition, ie look at service provision across the whole economy and identify what needs to be put in place to achieve optimal outcomes for people with malnutrition; the British Association of Parenteral and Enteral Nutrition (BAPEN) supported by a range of national health and social care bodies have devised a commissioning toolkit to aid commissioners and providers to commission better outcomes for malnutrition
- embed a service specification for the management of malnutrition across a wide range of service providers including GPs, community health services, acute trusts and community pharmacists; nutritional care should be a fundamental indicator of quality
- while there may be a pivotal role for specialist input from dietitians, they should not be seen as a panacea and a service model that relies solely on dietitians to manage all cases will simply not be viable – the numbers of patients requiring intervention are far too great for a specialist service to manage; instead we should look to utilise specialist input more intelligently, using them as leaders and educators as we have seen with specialist nurse roles in diabetes and respiratory care

**Table 5.** Practical steps can be put in place to manage malnutrition patients appropriately

**References**

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Declaration of interests
None to declare.

Shailen Rao is managing director of Soar Beyond Ltd – service provider of medicines management services to the NHS.