



Conference on ‘Malnutrition matters’ Symposium 8: How to succeed in audit

Designing a national clinical audit of nutritional care in health and social care settings: consideration and future directions

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The aim of this review paper is to consider how the principles of clinical audit could be applied to the development of an audit of nutritional care in hospitals and care homes, based on criteria derived from the Essence of Care: Food and Drink. A literature review identified fifteen key papers that included guidance or standards for nutritional care in hospitals or care homes. These were used to supplement the ten factors suggested by the Essence of Care to develop a set of potential audit criteria covering all aspects of the nutritional care pathway including the identification of risk of malnutrition, implementation of nutritional care plans, referral to healthcare professionals for further nutritional assessment and nutritional support strategies. A series of audit tools have been developed, including an organisational level audit tool, a staff questionnaire, a patients’ and residents’ records audit tool and a patients’ and residents’ experiences questionnaire. Further issues to consider in designing a national nutritional audit include the potential role of direct observation of care, the use of trained auditors and the scope for including the results of pre-existing local audits. In conclusion, a national audit would need to encompass a very large number of health and care organisations of widely varying sizes and types and a diverse range of people.

Clinical audit: Nutrition: Hospitals: Care homes: Older people

The quality of nutritional care in health and social care settings is the key to maintaining health and enhancing recovery from illness. A range of policies and guidance documents have been produced in the UK highlighting the need to ensure people receive good quality, nutritious foods and fluids. Despite this guidance, many people in hospitals and living in care homes are at risk of malnutrition and reports suggest experiences of food services are variable^(1–7). People in hospitals or living in care homes may not always receive the best nutritional care, from the

provision of nutritionally adequate and enjoyable meals to the implementation of nutritional support pathways for those at risk of malnutrition. The Care Quality Commission (CQC), the governmental organisation that registers and inspects health and social care providers in England, recently published a report on 100 hospitals highlighting that nutritional care varied from being ‘fully compliant’ in forty-five hospitals to ‘fully compliant with improvements suggested’ in thirty-five hospitals and ‘non compliant’ in twenty hospitals⁽⁸⁾. Moreover, given the prevalence of

Abbreviation: CQC, Care Quality Commission.

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malnutrition among older people in the community⁽⁷⁾, it is equally important to ensure that such vulnerable groups are screened for nutritional risk and effective interventions are offered. Several UK publications have urged that people moving to care homes should be screened for risk of malnutrition on arrival, reviewed on a regular basis and receive food that meets their nutritional needs^(9–16).

These concerns, coupled with the growing amount of guidance about nutritional care, highlight the importance for care providers in all sectors to be able to assess and where necessary enhance the quality of nutritional care they are delivering. Clinical audit can be used as a model for achieving this.

In recent years, national clinical audits have been used to assess and improve the quality of care throughout the UK. Two recent examples are the National Audit of Dementia Care in General Hospitals and the National Sentinel Stroke Audit^(17,18). Both of these include small sections on nutrition, as this plays an important role in a patient's wellbeing and/or recovery. However, although many individual hospitals and some care homes conduct local audits, there has been no national audit of nutritional care in UK hospitals and care homes against nationally defined and agreed standards relating to the entire nutritional care pathway. The British Association for Parenteral and Enteral Nutrition has conducted surveys of nutritional screening, using the 'Malnutrition Universal Screening Tool' in hospitals and care homes. These surveys found that 20–30% of hospital patients and 30–42% of care home residents are at risk of malnutrition, but the surveys did not cover other aspects of nutritional care, such as care planning, assistance with meals or staff training^(2,3,5,19).

The aim of this paper is to review and discuss aspects of the design of a possible national clinical audit of nutritional care, including identifying audit criteria and developing tools for use in hospitals and care homes. The feasibility of conducting such an audit on a national scale is also considered. This review paper is based on a developmental project to support a potential national clinical audit of the Essence of Care Benchmarks for Food and Drink.

Considerations for setting the audit criteria

The first stage of an audit is to decide the aims of the audit and the framework that will be used to assess the standards of care. Audit criteria and standards need to be identified, from which audit tools can then be devised. An initial review of the literature may be required in order to identify key policies and guidance related to the topic. It is vital to consult with key stakeholders at an early stage to gain consensus on the priorities for the audit. Key stakeholders could include representatives from health and social care practice and provider communities, third sector advocates and representatives, patient, care user and carer representatives and researchers in the field.

The scope of our developmental project was set by the commissioners as being based on the Essence of Care Benchmarks for Food and Drink⁽¹⁶⁾. This focuses on ten

areas related to food and nutritional care, including the availability, provision and presentation of food, information about the food provided, the eating environment, nutritional screening and assessment, care planning, assistance with meals and monitoring of intake, as well as general indicators and promoting health. In addition to using the Essence of Care Benchmarks to formulate audit standards, a literature search identified fifteen key papers that included guidance or standards for nutritional care in hospitals or care homes (Table 1). Common themes arose from the identified standards and benchmarks. These themes related to organisational policies, training and skills, availability of expertise, assessment of individual need, provision of appropriate support and outcomes. The standards and benchmarks were reorganised according to these themes and then rationalised into a list of potential audit criteria. Decisions on inclusion of criteria were based upon their relationship with the Essence of Care Benchmarks for Food and Drink and their relevance to improving nutritional care.

This initial list of criteria covered two main areas: aspects relating to food provision and aspects relating to nutritional care. Food provision included food preparation and the provision of assistance at mealtimes. Nutritional care related to the nutritional care pathway, including the identification of risk of malnutrition, implementation of nutritional care plans, referral to healthcare professionals for further nutritional assessment and nutritional support strategies.

The multidisciplinary project team, consisting of academics, researchers and professionals with expertise in health and social care initially drew on their own expertise and experience to evaluate these potential audit criteria. The key themes were then discussed with a wider group of stakeholders, including patient, user and carer members, meeting as a Project Advisory Board, to test the relevance of the themes and to identify priorities for a potential national audit of nutritional care. Priorities that were identified during this discussion included processes and outcomes, providing personalised care, the transfer of care between settings, food provision, communication, nutritional care and the roles of the health and social care workforce. The elements of these and the justifications for their identification as priorities are discussed in the following seven sections.

Themes that are relevant in nutritional care

Processes and outcomes

There has been much debate in the realm of quality measurement and improvement over the relative priority that should be given to the outcome as opposed to the process of care⁽²⁰⁾. In the field of nutritional care many national and local initiatives focus on the process of care: for example, rates of nutritional screening (e.g. the European Society for Clinical Nutrition and Metabolism's nutrition screening day and the British Association for Parenteral and Enteral Nutrition's nutrition screening week), the Patient Environment Action Team's assessments and the registration/inspection process of the CQC.

Table 1. Key documents identified by the literature search

| | |
|----|--|
| 1 | From Malnutrition to Well nutrition: Policy to Practice, 2006. The European Nutrition for Health Alliance (http://www.european-nutrition.org/files/pdf_pdf_38.pdf) |
| 2 | Essential Standards for Quality and Safety, 2010, Care Quality Commission (http://www.cqc.org.uk/sites/default/files/media/documents/gac_-_dec_2011_update.pdf) |
| 3 | The Dignity Factors: Eating and Nutritional Care, 2010, Social Care Institute for Excellence (http://www.scie.org.uk/publications/guides/guide15/factors/nutrition/index.asp) |
| 4 | Managing food waste in the NHS, 2005, Department of Health (http://www.hospitalcaterers.org/documents/foodwst.pdf) |
| 5 | Patient Environment Action Team Assessments 2010, National Patient Safety Agency (http://www.npsa.nhs.uk/EasySiteWeb/GatewayLink.aspx?a1ld=83443) |
| 6 | 10 Key Characteristics of Good Nutritional Care, 2010, National Association of Care Caterers (http://www.thenacc.co.uk/assets/downloads/139/10%20key%20Characteristics%20of%20Good%20Nutritional%20Care%20poster.pdf) |
| 7 | Promoting Nutrition in Care Homes for Older People, 2009, The Care Commission, Scotland (http://www.dignityincare.org.uk/_library/Resources/Dignity/CSIPComment/promotingnutritionincare_homes1.pdf) |
| 8 | Get your 10 a day, 2007, Department of Health, Social Services and Public Safety, Northern Ireland (http://www.dhsspsni.gov.uk/food_standards-10_a_day.pdf) |
| 9 | Fundamentals of Care, 2003, Welsh Assembly Government (http://www.wales.nhs.uk/documents/booklet-e.pdf) |
| 10 | National Service Framework for Older People, 2001, Department of Health (http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_4003066) |
| 11 | Food, Fluid and Nutritional Care in Hospitals, 2010, NHS Quality Improvement Scotland (http://www.tsh.scot.nhs.uk/Care_And_Treatment/docs/FFN%20Standards%20Leaflet%20-%20Jan%202010.pdf) |
| 12 | Improving Nutritional Care: The Nutrition Action Plan, 2007, Department of Health (http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_079931) |
| 13 | Still Hungry to Be Heard, 2010, Age UK (http://www.ageuk.org.uk/Documents/EN-GB/ID9489%20HTBH%20Report%2028ppA4.pdf?dtrk=true) |
| 14 | Meeting Quality Standards in Nutritional Care, 2010, BAPEN (http://www.bapen.org.uk/pdfs/toolkit-for-commissioners.pdf) |
| 15 | Nutrition Support for Adults, NICE CG32, 2006, NICE (http://www.ncbi.nlm.nih.gov/pubmed/21309138) |

BAPEN, British Association for Parenteral and Enteral Nutrition; NICE, National Institute for Clinical Excellence.

However, in all settings there are significant challenges in identifying appropriate outcome measures for an audit of nutritional care. The link between nutritional care and specific nutritional outcomes is complex and desirable outcomes are difficult to define. Potential outcomes include measures of body weight or weight change and non-nutritional outcomes that may be heavily influenced by nutrition, such as recovery time, pressure ulcer acquisition or healing and psychological wellbeing^(21,22). However, ascertainment of weight or weight change is highly dependent upon the quality of documentation in patients' and residents' records and auditing these outcomes in the absence of good quality records with regular reassessment is unrealistic. Also, while the principle of using proportionate change in body mass as an indicator is well established⁽²³⁾, there is no clear and widely accepted standard or definition of good and bad outcomes that would apply consistently across all patient and user groups in all care settings. Use of indirect outcome indicators that are influenced by nutrition, such as pressure ulcer healing, is fraught with even greater difficulty, since such outcomes are multifactorial in pathogenesis. The evidence linking nutrition to these outcomes is often scant and nutritional care is likely to contribute only a small fraction of the variation that relates to service quality. On the other hand, direct patient or user experience of nutritional care, for example enjoyment of meals, is also an important outcome. Hence, it was decided to focus on intermediate outcomes of individual parts of the nutritional care process, such as the recording of a nutritional risk score or patient or resident satisfaction with food quality, rather than gross measures of the

outcome of the whole nutritional care process such as weight change.

Personalised approach

In recent years, there has been a shift in the focus of the delivery of care, including nutritional care, to ensure that care is person-focused and tailored to the individual needs of people accessing services in all settings⁽²⁴⁾. Nutritional care provision should take into account people's individual health and social needs, with social outcomes being considered just as important as health outcomes. It is important for people's preferences and backgrounds to be sought and recorded and all staff should be aware of people's individual needs and wishes. People's likes and dislikes should be recorded in a format that allows the information to be accessible at all stages of the patient journey, including the transfer from hospital to care home. Having profiled people's needs, care should be tailored accordingly, providing the level of care that meets people's needs and promotes their independence. For example, if a person has problems eating, they should be provided with any adapted cutlery they require or with direct assistance.

Transfer of care

The transition or transfer of care between settings is a topic that has received great attention, as communication and continuity of care is often sub-optimal⁽²⁵⁾. When people's needs have been identified in hospitals or in the community, there is a responsibility to refer people to the relevant organisations and health professionals for further assessment and action if they move settings or units.

Food provision

The quality of the food provided is clearly important and can be measured according to a variety of factors, including nutritional content, meal design, palatability, cultural appropriateness and user satisfaction. In addition, aspects of food service form an integral part of nutritional care and people must receive the assistance and support they require in order to eat and drink. This has been highlighted by the Essence of Care, Age UK and the National Minimum Standards for care homes^(13,16,26,27). However, the CQC's report into care for older people in hospitals demonstrated that this vulnerable group of patients do not always receive the assistance they require⁽⁸⁾.

Communication

During consultation with stakeholders it quickly emerged that the language used to discuss the audit and the phrasing of questions in audit tools needed to be carefully considered to ensure that those asked to complete them are able to understand them. In the past, national clinical audits have operated in areas dominated by professionally qualified practitioners. For an audit of nutritional care conducted outside of the hospital setting, the residents and non-professionally qualified health and social care staff may be less familiar with clinical terminology.

Nutritional care and intake monitoring

Eating and drinking are important activities in both hospitals and care homes. The environment in which people receive their meals should be conducive to consuming the meals and people should be provided with the assistance they require to eat and drink safely and as independently as possible. Consumption of food and drink should be monitored, but this needs to go beyond merely recording that meals and drinks were received. Staff should note how much has been consumed and what has not been consumed and should investigate reasons for the latter.

Workforce

Training among health and social care staff in nutrition, food service and assistance with eating is thought to vary according to staff grade, setting, status and interest. In addition to training, the deployment of staff at mealtimes to assist patients and residents has been given greater priority in recent years, with the introduction of schemes such as protected mealtimes and red trays in some hospitals. However, it has been observed that such schemes are not always implemented appropriately and, where this is the case, may not result in improved intake⁽²⁸⁾.

Following these discussions, fifty audit criteria were developed, encompassing all aspects of the nutritional care pathway (see Table 2). The criteria included the necessary outcomes, processes and policies associated with the provision of nutritional care. As a result, certain aspects of nutritional care appear in multiple criteria, depending on whether they represented an outcome, process or policy.

Considerations relating to the design of audit tools

Detailed consideration needs to be given to the people who are expected to complete any audit tools, the type of language used in these and the length of time needed to complete them. Web-based forms are being used more frequently, to reduce printing costs and data entry time. However, they may not be feasible in all settings, for example in care homes, where lack of access, familiarity and confidence in using computer systems may act as greater barriers than in hospitals.

Audit criteria relating to nutritional care will inevitably be associated with several different levels of care provision, from organisational structures through to ward or unit organisation, staffing patterns and roles, and levels of care for individuals. Hence, it was necessary to develop audit tools that would operate at these different levels. The following four audit tools were drafted, one for each level:

An organisational level audit tool covered hospitals' and care homes' nutritional policies and procedures. It aimed to assess the content of the policy in relation to nutritional screening, assessment, care planning and access to healthcare professionals. Information on the provision of staff training was also requested.

A staff questionnaire aimed to identify the level of training, the training needs and knowledge of staff (of all grades) in relation to various aspects of nutritional care. The questionnaire also asked staff about their experiences of the nutritional care delivered in their workplace.

A patients' and residents' records audit tool aimed to capture information on nutritional care, from screening for nutritional risk and assessment of nutritional needs and preferences to the setting and review of nutritional care plans and referral to healthcare professionals where appropriate.

A patients' and residents' experiences questionnaire aimed to capture information on the patient/resident's perceptions of the nutritional care they have received. It asked questions on whether the person knew if they had been weighed or asked about changes in their weight. It also included questions from a validated questionnaire that measured client-centred aspects of food access in an institutionalised setting⁽⁴⁾.

These draft audit tools are available from Healthcare Quality Improvement Partnership⁽²⁹⁾.

Pilot audit

A pilot audit was conducted in three hospitals and four care homes. The data from the pilot audit have been analysed and reported to Healthcare Quality Improvement Partnership. A summary of the report is available⁽³⁰⁾.

The following key aspects of a national audit require further consideration.

Audit criteria

This project was based on the Essence of Care Benchmarks, which led to criteria and tools being developed focusing on people's food and nutritional needs and preferences. Other nutritional guidance that is available in the UK was reviewed and additional criteria were incorporated

Table 2. Audit criteria

| Criterion | Type* | Theme† | Reference |
|--|---------|-------------------|------------------------------|
| Food preparation | | | |
| 1 The food meets people's nutritional needs and preferences. | Outcome | Outcome | (11,15,16,37–43) |
| 2 People are satisfied with the quantity and quality of food they receive. | Outcome | Outcome | (11,15,16,37–43) |
| 3 Meals are delivered promptly, served at the correct temperature, and portion size to meet people's preferences and meet policy at all times, without substitutions or omissions. | Process | Personalised care | (11,15,16,26,37,38,41–43) |
| 4 Timing of meals takes into account people's normal dietary patterns. | Process | Personalised care | (16,26,37,38,42) |
| 5 Food and drink are served in an appetising way to encourage enjoyment. | Process | Food | (11,15,16,38,42–44) |
| 6 The taste, texture and appearance of modified texture diets should be appealing to people. | Process | Food | (16,38,43) |
| 7 People are aware of when and how to order their meals, and when they will be served. | Process | Personalised care | (15,16,38,43) |
| 8 Staff are aware of people's food preferences. | Process | Personalised care | (11,15,16,26,43,44) |
| 9 All staff involved with serving food receive training to ensure they can do this safely. | Process | Workforce | (12,15,16,26,27,39–41,43–45) |
| 10 People with the relevant specialist expertise are involved in menu planning and review, ensuring the menu meets people's nutritional and cultural needs and people with special dietary needs are catered for. | Policy | Workforce | (15,16,26,41) |
| 11 People receiving care are able to participate in the planning and preparation of meals. | Policy | Personalised care | (16,38–41,43) |
| Assistance at mealtimes | | | |
| 12 People are able to eat and drink as independently as possible. | Outcome | Outcome | (11,12,15,16,26,27,37,38,40) |
| 13 People are not disturbed unnecessarily during meals. | Outcome | Outcome | (11,15,16,38,39) |
| 14 Assistance with visiting the toilet and hand washing is offered prior to eating and drinking. | Process | Food | (11,15,16,38,39) |
| 15 An environment conducive to eating and drinking is maintained, and inappropriate activities are curtailed at mealtimes. | Process | Food | (11,15,38,39,41–43,46) |
| 16 People are provided with the correct tableware, including modified cutlery and any other equipment that facilitates eating. | Process | Food | (11,15,16,37,43) |
| 17 People are provided with the assistance they need to eat and drink safely at all mealtimes. Relatives and friends are encouraged to offer support at mealtimes. | Process | Food | (11,15,16,26,27,37,38,40,45) |
| 18 Education programmes are in place to teach people with specific needs how to feed themselves. | Process | Personalised care | (16,43) |
| 19 Staff assisting people with their meals receive the appropriate training. | Process | Workforce | (12,14,16,39–41,43,44) |
| 20 Adequate staff are present at all meals to provide necessary assistance. | Policy | Workforce | (11,15,16,27,37,40,41,43,45) |
| Food availability | | | |
| 21 People receive three meals and at least two snacks daily, unless restricted for medical reasons. | Outcome | Outcome | (11,15,16,37,38,40,43) |
| 22 People have at least six to eight cups of fluid daily, unless restricted for medical reasons. | Outcome | Outcome | (15,16,43) |
| 23 Staff clearing food after meals provide accurate reports to nursing staff on the quantity of food and drink consumed by individuals. | Process | Nutritional care | (11,15,16,38,40,43) |
| 24 People have access to hot and cold meals, snacks and drinks throughout the day and night. | Process | Food | (11,15,16,37,38,42,43) |
| 25 People are not expected to wait for the next meal if they missed a planned mealtime. | Process | Personalised care | (11,15,16,37,38,42,43) |
| 26 Facilities are available to store food brought in by friends or relatives. | Process | Food | (11,15,16,38,43) |
| Nutritional screening | | | |
| 27 All nurses and other health professionals involved in the provision of nutritional care have the relevant knowledge of nutritional screening and interventions. | Outcome | Outcome | (12,14,16,27,39–41,43–45) |
| 28 All people are screened for malnutrition and dehydration. | Outcome | Outcome | (11,12,14–16,26,27,37,39–45) |
| 29 All staff completing the nutritional screening tool are aware of the importance of nutritional care, how to screen for malnutrition, basic nutritional care measures and indications for ongoing referral for nutritional assessment and support. | Process | Workforce | (11,12,15,16,40,41,43–45) |

Table 2 (Continued)

| | Criterion | Type* | Theme† | Reference |
|----------------------------------|--|---------|-------------------|------------------------------------|
| 30 | All people are screened for malnutrition, dehydration and swallowing difficulties on entry to the service and repeated weekly in hospitals and monthly in care homes. The nutrition screening tool measures BMI, percentage weight loss and the presence of acute disease. | Process | Nutritional care | (11,12,14–16,26,27,37,39–41,43–45) |
| 31 | Nutritional screening, using a specified tool, is completed on admission and reviewed at appropriate intervals. | Policy | Nutritional care | (11,12,15,16,27,37,39–41,43–45) |
| Nutritional care planning | | | | |
| 32 | All people have a nutritional care plan that is monitored. | Outcome | Outcome | (11,15,16,39,41,44,45) |
| 33 | Inappropriate weight loss is minimised. | Outcome | Outcome | (12) |
| 34 | Nutritional care plans take into account people's needs and preferences. | Outcome | Outcome | (15,16,26,39,41,45) |
| 35 | Screening for nutrition and hydration is recorded and linked to a care plan, which records how people's needs will be met. | Process | Nutritional care | (11,12,15,16,26,37,40,43–45,47) |
| 36 | The nursing care plan takes into account results of nutrition and hydration screening. | Process | Nutritional care | (11,15,16,45) |
| 37 | Full nutritional assessment is completed with a validated tool where the nutritional screening tool has identified risk of poor nutrition and hydration. | Process | Nutritional care | (11,12,14–16,26,27,39–41,43–45) |
| 38 | All people with swallowing difficulties receive advice from a speech and language therapist or other suitably trained healthcare professional on the appropriate modified texture for food and drinks. | Process | Transfer of care | (15,43) |
| 39 | The 'nil by mouth' status of people is reviewed on a daily basis. | Process | Nutritional care | (12,15,16,26,37,44) |
| 40 | People who are designated 'nil by mouth' are monitored to identify risk of malnutrition and dehydration. | Process | Nutritional care | (12,16,26,33,37,44) |
| 41 | Food and fluid charts for those at high risk of malnutrition or dehydration are available to the multidisciplinary team. | Process | Transfer of care | (11,15,16,38,40,43) |
| 42 | All people have a nutritional care plan that relates to the result of nutritional screening. | Policy | Nutritional care | (7,11,12,15,16,26,37,40,43–45) |
| Nutritional interventions | | | | |
| 43 | All people at risk of malnutrition receive nutritional interventions. | Outcome | Outcome | (15,16,26,37,39–41,43,45) |
| 44 | All people at high risk of malnutrition are referred to and seen by the relevant healthcare professional for nutritional support. | Outcome | Outcome | (11,12,15,16,26,37,43,45) |
| 45 | People are empowered with the nutritional knowledge they need in order to improve their nutritional status. | Outcome | Outcome | (15,16,43–45) |
| 46 | People are referred to the relevant healthcare professional for further nutritional assessment when they are identified as being at high risk of malnutrition. | Process | Transfer of care | (11,12,15,16,26,37,43) |
| 47 | People have any special diets or dietary supplements that they need arranged on the advice of an appropriately qualified or experienced person, with a plan in place to monitor their effectiveness. | Process | Personalised care | (11,12,15,16,37,38,40,44,45) |
| 48 | People are provided with user-friendly information on nutrition and hydration, relevant to their needs. | Process | Personalised care | (15,16,38,43–45) |
| 49 | Nutritional assessment occurs for all people at nutritional risk. | Policy | Nutritional care | (11,12,14–16,26,27,37,39–41,43–45) |
| 50 | All people are referred to a healthcare professional for further assessment should their nutritional status warrant referral. | Policy | Transfer of care | (11,12,15,26,43,45) |

The criteria are set out in sections representing different parts of the nutritional care pathway.

*Represents the type of criterion, i.e. outcome, process or policy.

†Represents the theme into which the criterion fits, as identified by the multidisciplinary project team and the project advisory board. Themes include processes and outcomes, providing personalised care, the transfer of care between settings, food provision, communication, nutritional care and the roles of the health and social care workforce.

where they clearly related to the Essence of Care. However, depending on the purpose of a national audit, other guidance could be used as the framework for the audit and hence a slightly different set of audit criteria might be appropriate. Key current guidance documents for both registered health and social care providers include the National Institute for Clinical Excellence Guidance for Nutrition Support (CG32) and the CQC standards for nutrition (Outcome 5)^(12,15). Ensuring that there is a clear linkage

between data collected for the audit and information required for CQC inspection would be likely to provide a powerful incentive for participation in a national audit, although the remit of the CQC is to ensure the adequacy of care and thus a goal of ensuring the highest possible standards might be obscured.

Fluid intake was not explored in detail in the present project. There is a single statement in the audit criteria that people should consume six to eight cups of fluid per day,



unless restricted for medical reasons. This statement appears in several of the documents that were reviewed when developing the audit criteria, though the evidence base for such a precise formulation is weak. It is widely believed that many older frail people are at risk of dehydration and several of the audit statements refer to the monitoring of hydration status. However, there is no simple and reliable way to assess hydration status without a biochemical test.

One of the issues to arise from considering the standards and criteria to be audited was that while there is much in common across diverse settings, the relative priority that should be given to each criterion will vary hugely depending upon the setting and client or user group. Matters of food preference seem intrinsic and of fundamental importance in long term and residential settings that are people's homes. However, in acute settings, such as hospitals, the intrinsic importance and the issues at stake are more varied. For example, for a young person recovering from appendectomy the core issue is one of preference, the significance is limited to a brief hospital stay and the consequences of poor care are limited. For a frail older person recovering from gastrointestinal surgery, although food preference may be a secondary concern in itself, the importance of stimulating and encouraging appetite is high and the consequences of poor nutritional care potentially devastating.

Audit tools

The use of multiple audit tools highlighted areas where there may be differences between stated policies and actual practice, with conflicting responses being recorded between the organisational tools, records and staff comments for certain topics. In particular, the policies of all the organisations that took part in the pilot audit stated that all patients and residents should undergo nutritional screening on admission, but auditing patient and resident records revealed that 20–25% of residents and patients had not been screened or the results of screening had not been recorded. Considerably fewer patients and residents could remember being asked about weight loss. This may reflect poor memory, though it appeared to affect hospital patients more than care home residents, but it may also indicate ineffective communication with patients or residents about the importance of nutritional screening.

There was also variation in the level of details recorded on the questionnaires returned. For example, in one care home, the manager reported that a nutrition screening tool was used and that staff had been trained in its use, but only the BMI section of the tool was found to be complete in the records audit. As the records audit forms were completed by the care home staff it is unclear whether sections on weight loss and acute disease had not been entered in the residents' records or whether the information had not been transcribed onto the audit tool. One way to avoid such uncertainties would be for trained auditors to visit each institution and complete the audit tools, though this would clearly have significant resource implications for a nationwide audit.

We also observed some discrepancies in the reported use of nutritional care plans. This featured mainly in hospitals, where a number of patients' records did not indicate whether a nutritional care plan had been put in place. This may have been because local policy was only to record nutritional care plans for patients who had been identified as being at risk of malnutrition. However, this emphasises that any tool used to audit patients' and residents' records should be very clear about what information is required. It also raises the question of whether the criteria for the implementation of nutritional care plans require standardisation at national and local policy levels.

The variation in responses to questions relating to activities such as completing a nutrition screening tool, calculating percentage weight loss and formulating a nutritional care plan raises questions about staff skills and time for carrying out such activities. There may therefore be a rationale for including a case-study type question in the staff questionnaire to assess staff confidence and capacity in identifying risks of malnutrition and seeking help with developing or amending care plans. The presence of such a question may trigger staff to question their own capacity in this area, if they found difficulty in answering the question. At a local provider level, this might provide some discussion among staff, in conjunction with their managers, around access to and adequacy of professional support, skills development and good practice in managing nutritional issues.

Role of observation

Another possible way to resolve the apparent discrepancies between information from different sources would be to use an audit tool that involved direct observation of activity on the ward or in the care home. Direct observation of care and assistance during mealtimes by nurses and other health professionals could potentially capture information on a wide range of issues such as helping patients or residents prepare for meals, assistance with eating and the effectiveness of interventions such as protected mealtimes and red tray schemes. In addition to the delivery of meals being observed, the auditors could assess staff interaction with patients and could subsequently talk to patients about their meal experience. In addition to observing the meal service, auditors could also select a sample of patients' notes to assess other aspects of the delivery of nutritional care, such as the completion of nutritional screening tools and care plans. Ideally, observation should not be restricted to mealtimes in order to capture information on other matters such as nutrition screening, care planning, menu planning, snacks and 'grazing' and the recording and transmission of information about people's preferences. However, this would again have serious resource implications.

Many hospital staff already undertake regular audits of nutritional risk screening and detailed surveys of patient satisfaction, including satisfaction with hospital meals. Some also have regular programmes of observational audits of food service at mealtimes by multidisciplinary teams, who also question patients about their experiences of food service. A national nutrition audit should take these local audit activities into consideration to avoid

unnecessary duplication. Providers might be encouraged to submit the results of their local audit activities instead of using the national audit tools, to the extent that the same areas of activity were covered. The CQC has developed an observational tool for inspectors to use when assessing the quality of nutritional care⁽¹⁵⁾ and the National Audit of Dementia Care has developed an observational element to their audit⁽¹⁷⁾, so it may be possible for a national nutrition audit to learn from these experiences. One of the hospital managers who took part in the pilot audit commented afterwards that the inclusion of an observational element in a national nutrition audit would be welcomed. The manager felt that it would significantly reduce the amount of time it would take to complete the audit, as much of the information could be obtained through 'real time' observation, supported by a small number of record audit forms. However, observation does have its limitations. If staff are aware that they are being observed, practice may improve temporarily at the time of the observation.

Selection of settings for a national nutrition audit

The present project focused on hospitals and care homes, as specified by the commission. However, there are many other settings where nutritional care may be delivered and people outside these settings who are at risk of malnutrition. Hence, aspects of a national nutrition audit might not be limited to these settings, but might include patients attending primary care services, older people living in extra care housing and people using day care centres.

Even if a national audit were limited to hospitals and care homes, it would need to be recognised that care is delivered by a very diverse range of providers in an equally diverse range of settings, covering a variety of groups of users and offering different levels of care. In 2011, there were 1723 active organisations registered to provide acute services with overnight beds in England and Wales, with almost half being independent healthcare organisations^(31–35). There were 19431 care homes registered in England and Wales (approximately 75% of which were residential care homes and 25% nursing homes) with a total of 486 184 registered places⁽³³⁾.

The sheer number of providers that could be included in a national nutrition audit represents a huge challenge in terms of the resources required to deliver an audit. One response to this challenge might be to audit only a sample of providers. There are a number of options that could be considered when deciding how to select such a sample. Some of these options, which are not mutually exclusive, are discussed below.

One approach to sampling might be to limit the audit to certain sectors and to certain user or patient groups within those sectors, on the basis of vulnerability to nutritional issues. For example, it might be appropriate for some groups of patients within hospitals to be excluded on the basis of their intended length of stay (e.g. day cases), reason for admission (e.g. maternity) or mode of feeding (e.g. artificial nutritional support). On the other hand, it could be argued that a good system of nutritional care should identify problems such as malnutrition whenever

people come into contact with a healthcare system and that care should extend beyond the immediate period of admission. Similarly, although there may be no *a priori* basis on which to conclude that particular sectors are of low priority, public concern and CQC reports over recent years have highlighted areas that may warrant particular attention, for example, care homes for people with severe and complex learning disabilities and older people in acute hospitals.

Rather than focusing on organisations to determine priorities, it may be useful to consider different patient or user pathways in order to identify settings and priorities. In simplistic terms, there are two 'pathways' here; the acute pathway and the long-term care pathway. For the long-term care pathway, high priority must be placed on the intrinsic experiences of food and ensuring that care is personalised and promotes quality of life. For the acute care pathway, the priority must be criteria related to 'operational' aspects of food and nutrition to support and enhance recovery. Of course the long-term care pathway will be punctuated by acute episodes for many. It certainly seems that there is a particular concern around this coming together of the long-term care and acute pathways with a particularly vulnerable patient group being those who are experiencing transfers of responsibility and potential discontinuity between agencies and care providers. Those on this pathway may move into acute care from care homes or their own home and similarly may return to either setting. This creates a challenge for personalised care, with a demand for the transfer of information and rapid reassessment as circumstances and settings change. For these patient groups, similar priorities (personalisation, assessment and timely reassessment, communication across boundaries) can be identified, irrespective of setting.

Changing the focus of the audit to the transition of care between hospitals and the community (including care homes) would be another way of reducing the size and potential burden of the audit. Those people who are frequently admitted to hospital may have more complex nutritional needs and it would be important to assess, within this vulnerable group, whether people are screened for nutritional risk and whether care plans are put in place that are transferrable and achievable in the community upon discharge.

An alternative approach to selecting a sample for a national audit might be to use a select set of criteria to 'screen' providers. The criteria could include indicators of good quality nutritional care. If providers failed to meet these criteria, they would be asked to participate in a more detailed audit, so that problem areas could be identified.

Another possible solution would be to base the sampling on a number of 'tracer conditions'⁽³⁶⁾. For the purposes of the audit, a series of tracer conditions could be specified where nutritional outcomes are likely to be dependent on the quality of the care provided. While providers would remain free to choose patients/residents for the audit they would be restricted to groups likely to present challenges. Clearly this has an element of complexity about it, but the underlying principle is quite simple and widely used in quality assurance.



Conclusions

This paper has identified many factors that need to be considered when designing a nutritional audit. Any national audit should make full use of information from the existing local audits. A range of documents on the delivery of nutritional care exists in the UK and decisions would need to be made as to the priorities and settings for a national audit. It would need to encompass a very large number (20 000+) of health and care organisations of widely varying sizes and types, ranging from small residential care homes (<10 residents) to huge hospital Trusts (>1000 beds). Patients and residents will also be diverse. A range of approaches to sampling within settings and audit data collection methods exist, which would need to be taken into consideration when collecting nutritional data on a national scale.

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