BAPEN
Advancing Clinical Nutrition

A Toolkit for Commissioners and Providers in England

Malnutrition Matters

Meeting Quality Standards in Nutritional Care

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on behalf of the BAPEN Quality Group

ageUK for later life

The British Dietetic Association

BSPGHAN working for children with digestive and liver disorders
British Society of Paediatric Gastroenterology Hepatology and Nutrition

NHS National Patient Safety Agency
National Reporting and Learning Service

Royal College of Nursing

Royal College of Physicians
Setting higher medical standards

First published May 2010 by BAPEN (British Association for Parenteral and Enteral Nutrition)
www.bapen.org.uk

ISBN: 978-1-899467-56-3

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BAPEN is Registered Charity No. 1023927

**This document was produced on behalf of BAPEN by the BAPEN Quality Group -
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BAPEN (British Association for Parenteral and Enteral Nutrition) is a multidisciplinary charity with a membership of doctors, nurses, dietitians, pharmacists, patients and all interested in nutritional care. The charity has produced a number of reports on the causes and consequences of malnutrition as well as national surveys on the prevalence of malnutrition and current use of nutritional screening in hospitals, mental health units, care homes and sheltered housing, and health economic analyses. Membership is open to all with full details at www.bapen.org.uk.

This nutritional toolkit is endorsed by all of BAPEN's core organisations - the Parenteral and Enteral Nutrition Group (PENG) of the British Dietetic Association (BDA), the National Nurses Nutrition Group (NNNG), the British Pharmaceutical Nutrition Group (BPNG), BAPEN Medical, the Nutrition Society and Patients on Intravenous and Nasogastric Nutrition Therapy (PINNT).

BAPEN would like to thank the following organisations for their contributions to and endorsement of this Toolkit, members of BAPEN Council and all other individuals who have reviewed and commented on this document.

Foreword

Malnutrition* **matters** being both a cause and a consequence of disease, and leading to worse health and clinical outcomes in all social and NHS care settings. Yet most patients, carers, healthcare professionals, commissioners, senior managers and chief executives do not realise how common it is in the UK and so it goes unrecognised and untreated. BAPEN estimates that malnourishment affects over 3 million people in Britain at any one time and if ignored, this causes real problems. Malnourished individuals go to their GP more often, are admitted to hospital more frequently, stay on the wards for longer, succumb to infections, and can even end up being admitted to long-term care or dying unnecessarily. In children, it is also disastrous with profound effects on growth and development through childhood and later increased risks of major adult diseases.

Providing good nutritional care is therefore **a matter of quality**. Ensuring that malnourished individuals or those at risk of developing malnutrition are identified and treated, clearly delivers against safety, effectiveness, equality and the patient experience and indeed, organisations must now ensure high quality nutritional care if they are to meet the national standards set by the Care Quality Commission (CQC).

Good nutritional care also makes **sound financial sense**. BAPEN has estimated that public expenditure on malnutrition in the UK in 2007 was over £13 billion and so improved nutritional care could result in substantial financial returns; with even a 1% saving amounting to about £130 million per year. It is therefore no surprise that recent guidance from NICE has identified better nutritional care as the **fourth largest potential source of cost saving** to the NHS, and that nutrition and hydration are identified as one of the SHA Chief Nurse's eight **'high impact' clinical areas** yielding 'huge cost savings' if performance is improved.

The delivery of high quality nutritional care is no easy task and requires focused policies, multidisciplinary teams, clinical leadership, educational initiatives and new management approaches. BAPEN, however, through its reports, research, educational tools, conferences, regional representatives and collaborative work with the Department of Health and others, can support commissioners and providers in finding successful solutions. We have therefore produced this Toolkit, in collaboration with many groups, to help health and care organisations to develop and implement a variety of approaches to nutritional care. These revolve around four main tenets:

- Malnutrition must be actively identified through screening and assessment;
- Malnourished individuals and those at risk of malnutrition must have appropriate care pathways;
- Frontline staff in all care settings must receive appropriate training on the importance of good nutritional care; and
- Organisations must have management structures in place to ensure best nutritional practice.

Malnutrition does matter and no NHS or social care organisation can claim it is delivering safe, effective, quality care without appropriate nutritional care policies in place. These should be a priority for all and organisations that deliver good nutritional care will see improvements in clinical outcomes and patient experience whilst simultaneously achieving significant reductions in costs.

Dr Mike Stroud, Chair of BAPEN

*In the context of this document the meaning of the word malnutrition is confined to under-nutrition

Glossary

BANS	British Artificial Nutrition Survey (produced by BAPEN)
BAPEN	British Association for Parenteral and Enteral Nutrition
BDA	British Dietetic Association
BIFS	British Intestinal Failure Survey
BMI	Body mass index
BPNG	British Pharmaceutical Nutrition Group (core group of BAPEN)
BSPGHAN	British Society of Paediatric Gastroenterology, Hepatology and Nutrition
BPSU	British Paediatric Surveillance Unit
CEPOD	Confidential Enquiry into Perioperative Deaths
CQC	Care Quality Commission
CQUIN	Commissioning for Quality and Innovation (payment framework)
DH	Department of Health
EoC	Essence of Care
ESPGHAN	European Society of Paediatric Gastroenterology, Hepatology and Nutrition
HQIP	Health Care Quality Improvement Partnership
KPIs	Key Performance Indicators
MDT	Multi-disciplinary team
'MUST'	'Malnutrition Universal Screening Tool' (produced by BAPEN)
NACC	National Association for Colitis and Crohn's Disease
The NACC	National Association of Care Catering
NICE	National Institute for Health and Clinical Excellence
NNNG	National Nutrition Nurses Group (core group of BAPEN)
NPSA	National Patient Safety Agency
PEAT	Patient Environment Action Teams
PENG	Parenteral and Enteral Nutrition Group of the BDA (core group of BAPEN)
PINNT	Patients on Intravenous, Naso-gastric Nutrition Treatments, Half-PINNT for children (core group of BAPEN)
PYMS	Paediatric Yorkhill Malnutrition Score
RCN	Royal College of Nursing
RCP	Royal College of Physicians
RCPCH	Royal College of Paediatrics and Child Health
SHA	Strategic Health Authority
STAMP	Screening Tool for the Assessment of Malnutrition in Paediatrics
WHO	World Health Organisation

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Document purpose	Commissioning Toolkit
Title	Malnutrition Matters - Meeting Quality Standards in Nutritional Care: A Toolkit for Commissioners and Providers in England
Author	BAPEN Quality Group
Publication date	May 2010
Target audience	Primary Care Trust Chief Executives, Primary Care Trust Commissioners, Directors of Public Health, Local Authority Chief Executives, Directors of Adult Social Services, Directors of Children's Social Services, Directors of Care Homes and Sheltered Housing, and providers of Nutritional Services in England
Circulation list	NHS Trust Chief Executives, Strategic Health Authority Chief Executives, Care Trust Chief Executives , Foundation Trust Chief Executives, Medical Directors, Directors of Nursing, Directors of Adult Social Services, Directors of Children's Social Services, Primary Care Trust Professional Executive Committee Chairs, NHS Trust Board Chairs, Directors of Finance, Managers of Nutrition and Dietetic Services, Allied Health Professional Leads, General Practitioners, Communications Leads, Royal Colleges and Professional Bodies, Voluntary Organisations
Description	This Toolkit will assist commissioners and providers to deliver high quality nutritional care across all care settings and meet national nutritional quality targets including those of the Care Quality Commission
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Executive summary

- Malnutrition, in terms of undernourishment, is both a cause and consequence of disease in adults and children. It is common and affects over 3 million people in the UK with associated health costs exceeding £13 billion annually.[1] It is often unrecognised and untreated, yet it has a substantial impact on health and disease in all community care settings and hospitals.[2,3]
- The benefits of improving nutritional care and providing adequate hydration are immense, especially for those with long term conditions and problems such as stroke, pressure ulcers or falls. The evidence shows clearly that if nutritional needs are ignored health outcomes are worse and meta-analyses of trials suggest that provision of nutritional supplements to malnourished patients reduces complications such as infections and wound breakdown by 70% and mortality by 40%.[3]
- Better nutritional care for individuals at risk can result in substantial cost savings to the NHS[4] and even a saving of 1% of the annual health care cost of malnutrition, would amount to £130 million annually.[1] Recent guidance from the NICE identifies better nutritional care as the fourth largest potential source of cost savings to the NHS[5] and nutrition and hydration are identified in the SHA Chief Nurses eight 'high impact' clinical areas that could make huge cost savings for the NHS if Trusts and Care Homes improved performance.[6]
- It is crucial when redesigning nutritional care, to consider the overall health costs associated with malnourishment. For example, although it is tempting to create a simple target to reduce the prescribing costs of oral nutritional supplements (ONS), which have risen steeply in recent years, ill thought out measures to do so will be detrimental to some individuals and may result in increased overall costs. Properly planned nutritional care will reduce costs from inappropriate use or wastage of ONS but will also identify more individuals who will benefit from them. However, since the health care costs associated with malnutrition are primarily due to more frequent and expensive hospital in-patient spells, more primary care consultations and the greater long-term care needs of malnourished individuals[4], even a net increase in use of ONS, enteral tube feeding and parenteral nutrition, will be more than offset by cost savings since the current costs of these nutrition support modalities only amounts to about 2% of overall malnutrition related costs.[4]
- Providing good nutritional care is therefore a matter of quality, clearly delivering against all elements of fair, personalised, safe and effective care[7] as well as ensuring equality, improved outcomes and best patient experience.
- Improved nutritional care is dependent on effective management structures to ensure joined up multidisciplinary care pathways across acute and community settings. Clinical leadership, innovation and continual improvement are fundamental to the delivery of high quality nutritional care.
- NICE guidance on Nutrition Support in Adults[8] sets out clear recommendations for nutritional screening in hospital and community and the development of personalised nutritional care pathways for patients at risk. There are also national minimum standards for food provision in care homes[9], patient experience surveys[10] and annual assessments of nutritional care in hospitals by the Patient Environment Action Team (PEAT),[11] and the Royal College of Nursing (RCN) has published a position statement on malnutrition in children and young people.[12] Many other organisations including the Council of Europe, the Department of Health, NICE, the National Patient Safety Agency (NPSA), the National Association of Care Catering (NACC), the Royal College of Physicians (RCP), and the RCN also recognise the importance of screening for malnutrition and treating all those at risk. Recently, the Care Quality Commission (CQC) produced guidance for healthcare and adult social care services on 'Essential standards of quality and safety' which include 'meeting nutritional needs'. These are much more detailed than the previous core standards.[13]
- BAPEN has produced a number of reports on the causes, consequences and health economics of malnutrition as well as national surveys on the prevalence of malnutrition and the use of nutritional screening in hospitals, mental health units, care homes and sheltered housing. The charity has also contributed to national government and NHS strategies, such as the Nutrition Action Plan[14] and the NHS core learning[15] units on nutrition. We are therefore in a good position to provide commissioners and providers with information on nutritional care and standards.

- The BAPEN Nutritional Care Tools in this document were developed in consultation with many organisations including all the Core groups that make up BAPEN. The generic issues that surround commissioning for adults and children are similar but some specifics of childhood nutritional needs and monitoring are different with issues such as poor parenting needing to be addressed. Child specific contributions were therefore made by the Nutrition Working Group of the British Society of Paediatric Gastroenterology, Hepatology and Nutrition (BSPGHAN) and the document contains a specific appendix focused on paediatric issues and transitional care to adult services.
- The principles underlying the tools are that potentially vulnerable individuals should be screened for malnutrition and that those identified as at risk should be offered individualised nutritional care plans appropriate to their needs. To achieve this all care staff must understand the importance of nutritional care and be trained to identify those at risk, a training need that can be met by e-learning modules available from BAPEN. All health or social care organisations must also have management structures in place to ensure best nutritional practice.
- This BAPEN Toolkit is based on world-class commissioning competencies[16] and enables commissioners and providers in local authorities, primary care organisations, hospital trusts and foundation hospitals to include best nutritional care when commissioning / redesigning all care services in all health and care settings. It will help service providers to include nutritional care in the development of new business cases and support them in collecting the data needed to prove they meet nutritional quality standards and recommendations. It will also assist commissioners to set appropriate and achievable key performance indicators (KPIs) and to effectively contract and monitor services against an appropriate quality specification.
- The BAPEN Toolkit contains guidance for commissioners and providers on defining the relevant, measurable outcomes related to nutritional care within services in order to gain value for money, a summary of national nutritional care standards and recommendations and the following tools:

  - **Tool 1: Assessment of population at risk of malnutrition** – Guidance on quantifying the numbers in the local population likely to be malnourished or at risk of malnutrition and hence the scale of need for nutritional care.

  - **Tool 2: Assessment of current screening and provision of nutritional care** – Guidance on the assessment of current levels of local nutritional care provision.

  - **Tool 3: Development of nutritional screening, assessment and care pathways** – Guidance on how to ensure that nutritional care pathways meet agreed standards and recommendations, based on available evidence for effective and efficient identification of malnutrition in patients and subsequent management.

  - **Tool 4: Education and training: Knowledge, skills and competencies of staff involved in nutritional screening, assessment and care planning** – Guidance to ensure that staff are appropriately trained to deliver high standards of nutritional care that are appropriate to the needs of individuals in health and social care settings.

  - **Tool 5: Service specifications and management structures for nutritional care** – A checklist to assist teams in developing specifications for nutritional care within services for adults and children across all local settings.

  - **Tool 6: Quality frameworks for nutritional care** – A framework to check that organisations involved in providing care to the local population put nutrition at the heart of that care.

  - **Tool 7: Quality indicators, monitoring and review** – Guidance on measurable markers of quality in nutritional care and information to assist in the development of data collection systems embedded in routine care wherever possible (rather than systems requiring specific ad hoc audits). The markers will also permit confirmation of quality and will enable commissioners to set appropriate KPIs, ensuring value for money.

Background

Malnutrition is a state in which a deficiency, excess or imbalance of energy, protein and other nutrients causes measurable adverse effects on tissue/body form (body shape, size and composition), function or clinical outcome.[17] Although the term 'malnutrition' can encompass both overnutrition/obesity and undernutrition, for the remainder of this document the term is only used to mean undernutrition.

Malnutrition is **often under-recognised and under-treated** to the detriment and cost of individuals, the health and social care services and society as a whole. It is a common problem with more than 3 million people at any one time in the UK malnourished.[1] Around 30% of admissions to acute hospitals and care homes are at risk when evaluated using criteria based on the 'Malnutrition Universal Screening Tool' ('MUST')[18,19] as well as 10 -14% of the 700,000 people living in sheltered accommodation;[20,21] and 14% of the elderly at home or in care,[22] whilst evaluation based on body mass index shows that even in individuals living at home, 5% of the elderly are underweight (BMI <20kg/m2), a figure that rises to 9% for those with chronic diseases.[23] **The prevalence of malnutrition is therefore set to rise as the population ages.**

In children the prevalence of acute malnutrition varies between 6-14% in hospitalised children surveyed in Germany, France and the United Kingdom[24,25,26] and the overall prevalence of malnutrtition including chronically growth restricted children was 19% of admissions in the Netherlands.[27] Additionally an important feature of much of malnutrition in children relates to micronutrient deficiency, especially iron and vitamin D.[28] Management of weight faltering often requires a multi-agency approach in which health visitors and social workers intervene to support parents with poor parenting skills and nutritional problems of their own such as obesity (Appendix 2).

All malnutrition is inevitably accompanied by **increased vulnerability to illness, increased clinical complications and even death** (Table 1). However, these risks can be significantly reduced if it is recognised early and specifically treated with relatively simple measures. For example, meta-analyses on the effectiveness of using oral nutritional supplements in malnourished patients, suggest that **clinical complications associated with malnutrition can be decreased by as much as 70% and mortality reduced by around 40%.**[3,29] Effective nutritional screening, nutritional care planning, high standards of food service delivery and appropriate nutritional support are therefore essential in all settings, and there is no doubt that a health service seeking to increase safety and clinical effectiveness must take nutritional care seriously - a conclusion shared by NICE in their analysis of the relevant scientific literature.[8]

EFFECT	CONSEQUENCE
Impaired immune response	Impaired ability to fight infection
Reduced muscle strength and fatigue	Inactivity and reduced ability to work, shop, cook and self-care. Poor muscle function may result in falls, and in the case of poor respiratory muscle function result in poor cough pressure – delaying expectoration and recovery from chest infection
Inactivity	In bed-bound patients, this may result in pressure ulcers and venous blood clots, which can break loose and embolise
Loss of temperature regulation	Hypothermia with consequent further loss of muscle strength
Impaired wound healing	Increased wound-related complications, such as infections and un-united fractures
Impaired ability to regulate salt and fluid	Predisposes to over-hydration, or dehydration
Impaired ability to regulate periods	Impaired reproductive function
Impaired fetal and infant programming	Malnutrition during pregnancy predisposes to common chronic diseases, such as cardiovascular disease, stroke and diabetes (in adulthood)
Specific nutrient deficiencies	Anaemia and other consequences of iron, vitamin and trace element deficiency
Impaired psycho-social function	Even when uncomplicated by disease, malnutrition causes apathy, depression, introversion, self-neglect, hypochondriasis, loss of libido and deterioration in social interactions (including mother-child bonding)
Additional effects on children and adolescents	Growth failure and stunting, delayed sexual development, reduced muscle mass and strength, impaired neuro-cognitive development, rickets and increased lifetime osteoporosis risk

Table 1 – Clinical effects of malnutrition (adapted from Combating Malnutrition: Recommendations for Action, BAPEN 2009[1])

The prevalence of malnutrition

Screening for malnutrition is not routinely carried out in every care setting and so opportunities for intervention are missed. BAPEN and other organisations have carried out a number of large surveys to identify the prevalence of nutritional problems in adults in different care settings and these are illustrated in Figure 1. This figure also conveys the adverse consequences and costs that can ensue if malnutrition is not prevented, recognised or treated appropriately.

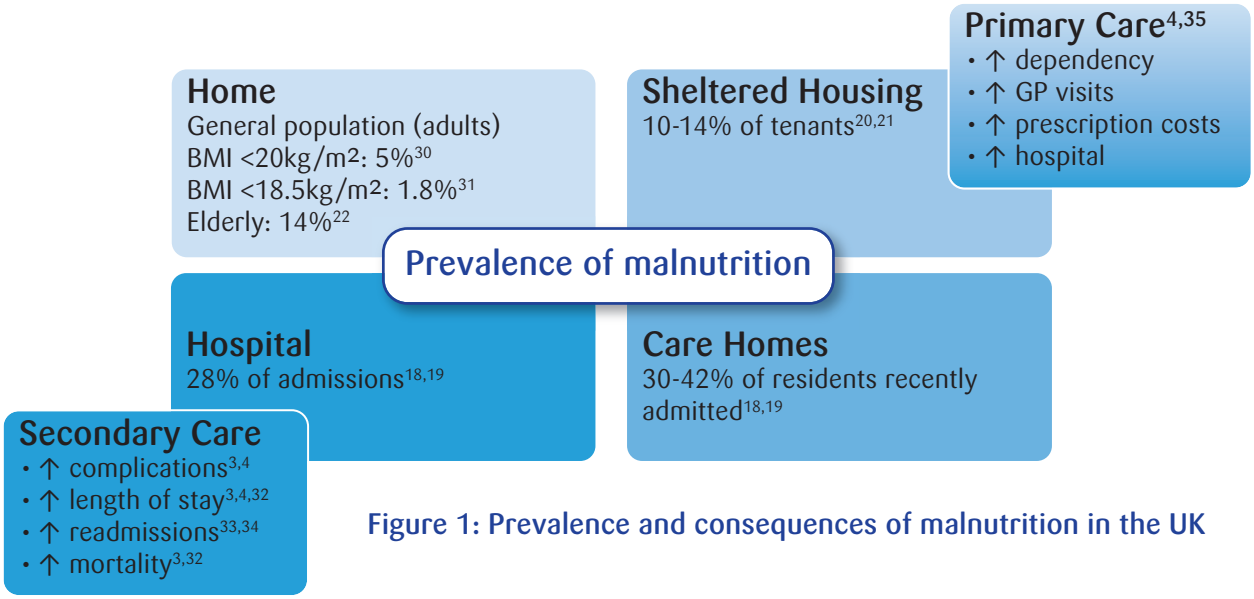

Figure 1: Prevalence and consequences of malnutrition in the UK

The costs associated with malnutrition

The health and social care costs associated with malnutrition are estimated to amount to at least £13 billion annually.[1] Many of these costs are inevitable since loss of appetite and metabolic derangements always accompany serious illness or injury. However, simple interventions, such as oral nutritional supplements in appropriate patients, are highly effective and small fractional savings will result in substantial absolute cost savings.[4] Even if these were as little as 1%, this would still represent spending reductions of £130 million annually. It is therefore unsurprising that recently published NICE Guidance identified nutrition as the fourth largest potential cost saving to the NHS[5] and that nutrition has also been identified in the SHA Chief Nurses eight 'high impact' clinical areas that could make huge cost savings for the NHS, if Trusts and Care Homes improved performance.[6]

It is crucial when redesigning nutritional care, to consider the overall costs associated with malnutrition. For example, although tempting to create a simple target of reducing prescribing costs of oral nutritional supplements (ONS), which have risen steeply in recent years, ill thought out measures to do so will be detrimental to some individuals and could result in increased overall costs. Properly planned nutritional care can reduce costs from inappropriate use or wastage of ONS but will also identify more individuals who will benefit from them. However, since the annual health care costs associated with malnutrition are primarily due to more frequent and expensive hospital in-patient spells, more primary care consultations and the greater long-term care needs of malnourished individuals,[4] even a net increase in use of ONS, enteral tube feeding and parenteral nutrition, will be more than offset since the current costs of these treatments only amount to about 2% of total malnutrition related costs.[4]

Appropriate nutritional support should therefore be provided for individuals who require it and the challenge is to develop seamless systems across acute and community settings to ensure, for example, that individuals needing oral nutritional supplements receive them for the correct length of time, whilst inappropriate or prolonged supplement usage is avoided. BAPEN is to undertake further work on guidance to support organisations to achieve this.

Current standards and guidelines in nutritional care

Over recent years there has been increasing interest in nutritional care with the publication of numerous initiatives, standards and nutritional indicators referred to in many service frameworks and commissioning guidelines. However there has been no overall approach or analysis of the evidence. Some of the published documents are listed below:

- Patient Environment Action Teams (PEAT), 2000 annual assessment[11]
- Better Hospital Food, 2001[36]
- Essence of Care, 2001[37]
- National minimum standards, 2001[9]
- Nutrition and Patients: A doctor's responsibility, 2002[38]
- Council of Europe Resolution on food and nutritional care in hospitals,[39] 10 key characteristics of good nutritional care, 2003[40]
- The cost of disease-related malnutrition in the UK and economic considerations for the use of oral nutritional supplements (ONS) in adults, 2005[4]
- NICE guidance on nutrition support in adults, 2006[8]
- Delivering Nutritional Care through Food and Beverage Services, 2006[41]
- Malnutrition among Older People in the Community. Policy recommendations for change, 2006[42]
- Malnutrition, what nurses working with children and young people need to know and do, 2006[12]
- Good Practice Guide, Healthcare Food and Beverage Service Standards: A guide to ward level services, 2006[43]

- Improving nutritional care. A joint action plan from the Department of Health and Nutrition Summit stakeholders, 2007[14]
- Nutrition Now, 2007[44]
- Organisation of Food and Nutritional Support in Hospitals (OFNoSH), 2007[45]
- Care Services Improvement Partnership factsheet 22; Catering arrangements in Extra Care Housing, 2007[46]
- NICE Guidance on maternal and child nutrition, 2008[47]
- NPSA factsheets on the 10 key characteristics of good nutritional care, 2009[48]
- Social Care Institute for Excellence Guide 15: Dignity in Care; Nutritional Care and Hydration, 2009[49]
- Combating Malnutrition: Recommendations for Action, 2009[1]
- Improving nutritional care and treatment. Perspectives and recommendations from population groups, patients and carers, 2009[50]
- Appropriate Use of Oral Nutritional Supplements in Older People, 2009[51]
- A.S.P.E.N clinical guidelines: nutrition support of the critically ill child, 2009[52]

The adoption of these initiatives, guidelines, standards and recommendations has been very variable and with so many standards and processes already in place, another challenge for commissioners is to mandate the robust implementation of these standards to ensure best and most cost-effective outcomes. The nutritional care that results must be focussed on each individual and must be comprehensive and seamless across all care settings. Good communication between commissioners, healthcare professionals, social services and the voluntary sector is essential and processes must be in place to ensure this.

Table 2 analyses the current situation, summarising the current standards and initiatives and some of the barriers to their implementation. It supports the analysis stage of the commissioning cycle.

Strengths

- Good evidence for nutritional interventions in both hospital and community settings
- Multiple recommendations and initiatives from Department of Health and professional bodies

Weaknesses

- Too many national initiatives and recommendations from Department of Health and professional bodies causing confusion
- Lack of overall structure
- Focus on systems and processes rather than outcomes and the experience of service users
- Lack of communication across different community and healthcare boundaries
- Services not sufficiently patient-focussed
- Opportunities for intervention missed
- Nutrition screening patchy
- Education and training in nutrition patchy

Opportunities

- Promoting nutritional care as an integral part of all care pathways could reduce admissions and readmissions and shorten hospital stay
- Promoting nutritional care could promote independent living and quality of life
- Promoting nutritional care could reduce health inequalities
- Promoting nutritional care could lead to substantial financial savings
- Promoting nutritional care could reduce requirements for Domiciliary Care
- Promoting nutritional care could reduce Care Home admissions

Threats

- Nutritional care seen as a low priority by many organisations
- Lack of awareness re: causes and impact of malnutrition
- Nutrition not 'disease specific'
- Lack of mechanism for coding nutritional care – no specific HRG
- Lack of adequately trained staff
- Collaborative working not promoted by purchaser/provider split
- Difficult to define and realise benefits
- Inappropriate use of oral nutritional supplements sometimes leading to unnecessary cost
- The national focus on obesity which although essential, should not over-shadow the separate problem of malnutrition.

Table 2: SWOT analysis of current standards and initiatives in nutritional care

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ISBN 978-1-899467-56-3

Registered Charity Number: 1023927