Impact of good nutrition and hydration on pressure ulcer prevention and care

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NUTRITION AND HYDRATION IN THE PREVENTION AND TREATMENT OF PRESSURE ULCERS

DEVELOPING HIGHLY RELIABLE NUTRITIONAL CARE

Ailsa Brotherton
BAPEN Secretary
British Association for Parenteral and Enteral Nutrition

A multi-disciplinary charity committed to raising awareness of malnutrition and options for nutritional treatment, along with consequent impacts on health outcomes, resource utilization, and health & social care budgets.
Malnutrition in the UK

PHYSICAL
- Disease related malnutrition
- Mobility
- Feeding
- Swallowing
- Low activity
- Decreased organ reserve
- Specific disease
- Multiple drugs (taste)
- Alcohol

PSYCHOLOGICAL
- Depression/bereavement
- Dementia

SOCIAL
- Isolation
- Poverty
Consequences of Malnutrition
(occurring within days)

- Poor breathing and cough from loss of muscle strength
- Liver fatty change, functional decline, necrosis, fibrosis
- Impaired wound healing and susceptibility to pressure ulcers
- Impaired gut integrity and immunity
- Psychology - depression & apathy
- Poor Immunity and infections
- Decreased Cardiac output
- Hypothermia - decline in all functions
- Renal function - limited ability to excrete salt and water
- Loss of muscle and bone strength - Immobility, falls, fractures and VTE

Malnutrition is both a cause and a consequence of disease.
The Malnutrition Carousel

**PRIMARY CARE**
- ↑ Dependency
- ↑ GP visits
- ↑ Prescription costs
- ↑ Hospital admissions

**SECONDARY CARE**
- ↑ Complications
- ↑ Length of stay
- ↑ Readmissions
- ↑ Mortality
Nutrition support in adults 2006
The effectiveness of Nutrition Support (Stratton et al)

- 10 RCT, n = 494; RR 0.29 (CI 0.18 to 0.47)
- 30 RCT, n = 3258; RR 0.59 (CI 0.48 to 0.72)

>70% reduction in complications and
>40% reduction in mortality
NICE ONS and length of stay

<table>
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<tr>
<th>Study</th>
<th>% Weight</th>
<th>Standardised Mean diff. (95% CI)</th>
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<tr>
<td>{HARTSELL1997}</td>
<td>12.3</td>
<td>-0.32 (-0.83, 0.20)</td>
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<td>-0.49 (-0.78, -0.21)</td>
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<td>Gocmen 2002</td>
<td>12.5</td>
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<td>-0.38 (-0.78, 0.01)</td>
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<td>Patolia2001</td>
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<td>Weinstein1993</td>
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<tr>
<td>Overall (95% CI)</td>
<td></td>
<td>-1.09 (-1.91, -0.27)</td>
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Over 3 million individuals malnourished or at risk of malnutrition in the UK.

Public expenditure associated with disease related malnutrition:
2003 - >£7.3 billion p.a.

2013 - ?? Costs being recalculated

NICE Cost Saving Guidance places malnutrition as a potential large cost saving to the NHS.
PREVENTION
WE KNOW WHERE IT IS BUT DO LITTLE TO PREVENT IT

HOME
General population (adults)
BMI <20kg/m²: 5%
BMI <18.5kg/m²: 1.8%
Elderly: 14%

SHELTERED HOUSING
10-14% of tenants

HOSPITAL
28% of admissions

CARE HOMES
30-42% of recently admitted residents

SECONDARY CARE
- ↑ complications
- ↑ length of stay
- ↑ readmissions
- ↑ mortality

PRIMARY CARE
- ↑ hospital
- ↑ dependency
- ↑ GP visits
- ↑ prescription costs

Prevalence of malnutrition in the UK

General population (adults)
BMI <20kg/m²: 5%
BMI <18.5kg/m²: 1.8%
Elderly: 14%

Prevalence of malnutrition in the UK
The Challenge:

We know what excellent nutritional care looks like

WE NEED HIGHLY RELIABLE SYSTEMS THAT WORK ACROSS ALL HEALTH SETTINGS
The BAPEN Toolkit for Commissioners & Providers 2010

Malnutrition Matters
Meeting Quality Standards in Nutritional Care

Ailsa Brotherton, Nicola Simmonds and Mike Stroud on behalf of the BAPEN Quality Group
THE FOUR BASIC TENETS OF GOOD NUTRITIONAL CARE

1) Identify those with malnutrition or risk of malnutrition by screening e.g. BAPEN’s MUST Tool and assessment as appropriate

2) Implement ‘individualised’ care pathways for the malnourished and those at risk, appropriate to the care setting

3) Provide training for all care staff on the importance of nutritional care appropriate to setting, profession and responsibilities

4) Ensure multidisciplinary structures to manage and monitor nutritional care

…but we struggle to deliver these reliably
Reliability is not about what clinical care should be given.

Reliability is about the process of ensuring patients get best care consistently.

‘Every patient, every setting, every day’
Local Improvement:

Using standards and guidelines to drive quality improvements in nutritional care

• Use the BAPEN toolkit which simplifies the plethora of standards and guidelines for improving nutritional care

• Design systems based on the four tenets of nutritional care

• Embed good nutritional care into everyday work flow

• Use evidence based tools and e-learning to support front line staff

• Work across organisational boundaries to ensure seamless nutritional care

• Ensure Trust Board Level engagement

• Identify a BAPEN rep in your organization
Royal Devon and Exeter NHS Foundation Trust have designed a highly reliable electronic system for nutrition screening using ‘MUST’

MUST

Compliance

Mark Bellas
Divisional Lead Nurse
Critical Care/T&O
Trajectory Results Trust-wide

General Compliance with MUST Screening at Weekly Review

Position
Target
IMPROVEMENT WORK: DESIGNING RELIABLE SYSTEMS

Screening alone is not enough

1. Design systems to screen all patients using ‘MUST’
2. Develop individualised nutritional care plans
3. Design reliable systems to deliver care plans
4. Monitor ongoing nutritional intake / status
“You may never know what results come of your action, but if you do nothing there will be no result”

Mahatma Gandhi