BAPEN
Advancing Clinical Nutrition

NUTRITION SCREENING SURVEY
IN THE UK IN 2007

A Report by BAPEN
British Association for Parenteral and Enteral Nutrition

Nutrition Screening Survey and Audit
of Adults on Admission to
Hospitals, Care Homes and Mental Health Units

MAIN DATA COLLECTION: 25 -27 SEPTEMBER, 2007

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on behalf of BAPEN and collaborators

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Key Points

- Malnutrition in adults on admission to hospitals and care homes affects almost 1 in 3 subjects, who were mostly in the high risk category. Malnutrition is common in all types of care homes and hospitals, all types of wards and diagnostic categories, and all ages. It is also common in mental health units.

- Nutritional screening policies and practice vary between and within health care settings, whilst malnutrition continues to be under-recognised and under-treated.

- Much of the malnutrition present on admission to institutions originates in the community. Consistent and integrated strategies to detect, prevent and treat malnutrition should exist within and between all care settings.

Summary

1. The Nutrition Screening Survey

1.1 This report provides a summary of the largest nutrition screening survey undertaken in the UK. Reporters from 175 hospitals, 173 care homes and 22 mental health units in the UK completed a general questionnaire and an anonymous patient questionnaire as part of a national audit on nutritional screening. Unlike previous studies that used different criteria to identify malnutrition in various care settings, this survey used the same criteria based on the 'Malnutrition Universal Screening Tool' ('MUST') in all care settings. Data were collected on patients during the first three days of admission to hospitals and acute mental health units, and on residents admitted to care homes and long stay / rehabilitation mental health units in the previous six months.

2. Hospitals

2.1 Of 9336 patients who were screened on admission to hospital, 28% were found to be at risk of malnutrition, (high risk, 22%; medium risk, 6%). The combination of these two risk categories is henceforth referred to as 'malnutrition' for simplicity.

2.2 Since the presence of 'malnutrition' at or shortly after admission to hospitals suggests that it largely originated in the community, strategies to prevent and treat malnutrition in the community setting should be considered.

2.3 'Malnutrition' varied significantly according to source of admission (25% from home, 31% from another hospital, 32% from another ward, and 43% from a care home), type of admission (32% for emergency admission, 20% for elective admission), and type of ward (e.g. 43% in oncology wards and 15% in orthopaedic/trauma wards). It was also greater in hospitals that had a screening policy than those that did not (28% v 24%), and considerably greater in large hospitals with ≥1000 beds than in those with <1000 beds (38% v 26%).

2.4 'Malnutrition' was common in all age groups and diagnostic categories, but it was significantly more common in women, who were older than men (29% v 26%), in subjects aged over 65 years than under 65 years (30% v 24%), and in certain diagnostic categories than others (e.g. gastrointestinal disease (43%) and neurological disease (33%) versus cardiovascular (21%) and musculoskeletal conditions (18%)). A low body mass index (BMI <20 kg/m²) contributed to a 'MUST' score in 4 out of 10 'malnourished' patients.

2.5 Most hospitals reported that they had a screening policy (89%), but weighing on all wards was carried out in less than half (less than a quarter of patients involved in the survey were in hospitals where weighing was carried out on all wards). This suggests that much malnutrition continues to be under-recognised and under-treated.

3. Care homes

3.1 Of 1610 residents screened 30% were 'malnourished' (20% high risk, 10% medium risk).

3.2 The prevalence of 'malnutrition' was greater in residents admitted from hospitals (35%) and other care homes (30%) than in those admitted from their own homes (24%). The prevalence was also greater in nursing homes (35%) than residential homes (22%).

3.3 'Malnutrition' was more prevalent in care homes that had a screening policy (31%) (these care homes accounted for 82% of the residents in the survey) than in those that did not (23%).

3.4 A low BMI (<20 kg/m²) contributed to the 'MUST' score in about 9 out of 10 'malnourished' residents. Underweight was 2- to 3-fold more common than obesity. The subjects in care homes were older than those in hospitals and mental health units, half of them being 85 years and over. The prevalence of 'malnutrition' tended to increase with age (26% in those <70 years, 29% in those 70-84 years and 32% in those ≥ 85 years) and duration of stay (up to 6 months), but neither of these were statistically significant.

3.5 Women were older and had a greater prevalence of 'malnutrition' than men (32% v 27%).

3.6 Half the residents had neurological conditions with an associated 'malnutrition' prevalence that was intermediate (33%) between those found in respiratory (43%) and musculoskeletal conditions (21%), which accounted for only 5% and 9% of all those screened respectively.

4. Mental Health Units

4.1 Of 332 adults screened, 19% were 'malnourished' (12% high risk, 7% medium risk).

4.2 The prevalence of 'malnutrition' on admission to combined Acute and Long-stay/Rehabilitation units, which provided data on most of the population, was only 17%. This was lower that that found in only Acute (31%) or only Long-stay rehabilitation units (29%).

4.3 Less than half the units had a nutrition screening policy, but more than two thirds of patients were reported from such units. The prevalence of 'malnutrition' on admission (31%) was higher in units that had a screening policy than those that did not (17%), and in those that had access to a nutrition support team (39%) than those that did not (17%).

4.4. A low BMI (<20kg/m²) was present in 14% of patients (8% with a BMI < 18.5 kg/m²). Subjects aged 65 years and over (24%) had a greater prevalence of 'malnutrition' (24%) than those less than 65 years (14%).

5. A comparison across care settings

5.1 The prevalence of 'malnutrition' on admission to hospitals (28%) was similar to that found in care homes (30%), but higher than in mental health units (19%), although a much smaller number of subjects were reported from mental health units.

5.2 In all care settings most of the 'malnutrition' was high risk 'malnutrition'.

5.3. The prevalence of 'malnutrition' amongst patients admitted to hospitals or care homes varied significantly according to source of admission, being lower in those that came from their own homes than from institutions (other wards, hospitals and care homes). The differences in mental health units were not significant.

5.4 In each setting women outnumbered men (ratio 1.1:1 in care homes and mental health units and 2.1:1 in care homes). Women were also older and had a slightly greater prevalence of 'malnutrition' than men.

5.5 BMI contributed to 'MUST' scores in about 4 out of 10 subjects in acute hospitals, 7 out of 10 in community hospitals and mental health units, and 9 out of 10 in care homes. Underweight (BMI <20kg/m²) was most common in care homes, affecting more than a quarter of residents. The mean BMI in care homes (23.4 kg/m²) was significantly lower (p <0.001) than in hospitals (26.2 kg/m²) and mental health units (25.7 kg/m²). In care homes underweight was more common than obesity (BMI >30kg/m²), whilst in hospitals and mental health units the reverse was true.

5.6 In each care setting 'malnutrition' was more common where a nutrition screening policy was in place than where it was not. Paradoxically, screening policies, which were most common in hospitals (89%), were associated with the least amount of weighing on admission (a little under half). In contrast, in mental health units, where screening policies were least common (45%), weighing was apparently undertaken routinely on all patients. In care homes a nutrition screening policy was in place in at least 82% of them, and almost all residents were weighed on admission and regularly throughout their stay. The extent to which results of screening and weighing were linked into appropriate clinical care requires investigation.

6. Recommendations

6.1 Patients or residents admitted to all institutional care settings should be screened, and repeat measurements made at intervals according to care setting, using accurate and reliable instruments (see 'MUST' report).

6.2 The results of nutritional screening should be linked to care plans, which may vary according to local resources and policies.

6.3 Access to nutrition advice and nutrition support teams should be available.

6.4 Consistent strategies to detect, prevent, and treat malnutrition should be in place in all care settings, including the community, where most malnutrition originates.

Purpose of Survey

Whilst malnutrition is considered to be common in hospitals, care homes and mental health units, there is still uncertainty about its overall prevalence in the UK, and its distribution between different types of institutions. This is partly because large scale surveys in different parts of the UK are lacking, and partly because a wide range of different screening tests, with variable validity and reliability, have been used to detect malnutrition [1]. Some of these tests can establish a prevalence of malnutrition that is two or more than two-fold greater than others [2], even when used on the same patients. It is obviously important to use screening procedures that are valid, reliable and user friendly. Even so, confusion can arise when various screening tests are used in the same institution (e.g. different parts of the same hospital) and at different times in the same patients as they journey from one healthcare setting to another. The use of a validated screening test in all healthcare settings has obvious advantages, not only from a clinical perspective but also from a public health and epidemiological perspectives.

A series of recent national and international reports have emphasised the importance of nutritional screening to identify those that require treatment and those that do not. Amongst such reports are those from the Council of Europe (Hospitals only) [3], NHS Quality Improvement Scotland (Hospital only), [4] National institute of Health and Clinical Excellence (all care settings) [5], Department of Health (National Action Plan (all care settings) [6], as well as reports from an alliance of organisations (all care settings) [7] and individual organisations, such as BAPEN [2]. However, it is believed that malnutrition continues to be under-recognised and under-treated. Important steps in the fight against malnutrition include documenting the extent of this problem in different settings and diagnostic categories, obtaining insights into the barriers towards screening, and the relationship of these barriers to local policies, procedures and attitudes towards nutritional screening. Such data would complement information obtained during the European Nutrition Study Day held in January 2007, which did not collect information on admission to hospitals or other care settings.

Malnutrition has detrimental effects on the individual, the National Health Service and society in general. Nutritional screening can identify those at risk and enable early intervention. When malnutrition is identified on admission to institutions it directs attention to the problems that led to its development before admission, such as disease, poverty, deprivation, geography, and attitudes towards nutrition, which can be influenced by previous education and training.

The specific aims of the audit / survey were:

1. To establish and compare the prevalence of malnutrition in different care settings and different types of institutions within these settings using the same screening test.

2. Document current screening practice and identify some of the problems that need to be rectified.

3. Provide feedback to local centres so the results can be benchmarked against those obtained throughout the UK.

4. Provide recommendations to improve nutritional care.

Methodology and Procedures

The survey was coordinated by BAPEN, and involved collaboration from the British Dietetic Association and the Royal College of Nursing. Participants were recruited via organisational networks, adverts in newsletters and websites. The participants were asked to complete two forms: a general form about their institution and another form to record data on individuals who were screened. The information was anonymous and had no specific patient identifiers. The appendix includes the sets of forms for hospitals, care homes and mental health units and the associated instructions. In hospitals and acute mental health units data for nutritional screening were obtained on adult patients admitted during 25-27th September 2007 within 72 hours of admission. In care homes and long stay/rehabilitation mental health units the data were restricted to adults who had been admitted in the previous 6 months. Individuals receiving enteral and parenteral nutrition were excluded. In all cases malnutrition risk was established using 'MUST'. For simplicity, medium + high risk in combination is referred to as 'malnutrition', except where otherwise stated. Diagnostic categories were system based (e.g. respiratory system, cardiovascular system). Patients with cancer were included within the relevant diagnostic categories.

Data were entered into spread sheets, checked at the time of entry and re-checked again later, when an error rate of <0.2% was identified and corrected. Only subjects aged 18 years and over were included in the final analysis, which was undertaken using the Statistical Package for the Social Sciences (SPSS version 14; Chicago, Illinois, USA). Analysis included Chi squared tests, unpaired t tests and binary logistic regression. A p value of <0.05 was considered to be significant.

Hospital Survey

Total number of subjects (not all questions completed on all subjects)

> 9722 individual patients
> 9460 with 'MUST' ('Malnutrition Universal Screening Tool') scores
> 9336 with 'MUST' scores in patients 18 y and over

Hospitals

Number of hospitals

175

Policies, audit and access to nutrition support team

	Nutrition policy (%)	Nutrition screening policy (%)	Nutrition screening audited (%)	Access to nutrition support team (%)
Yes	76	89	75	52
No	18	9	14	41
Don't know	6	2	11	7
Total	100	100	100	100
Number of hospitals	175	175	175	175

Percent of patients screened: 28% of hospitals screened 0-25% of their patients, 38% of hospitals screened 25-50% of patients, 29% of hospitals screened 50-75% of patients, and 6% of hospitals screened 75-100% patients (Total base N = 175 hospitals).

Measuring weight and height

	Recording of weight (%)	Recording of height (%)
Yes, on all wards	49	28
Yes, on some wards	44	38
No	6	29
Don't know	2	6
Total	100*	100*
Number of hospitals	155	155

* Results do not add up to 100% due to rounding up of the component values to the nearest 1%.

In hospitals with a screening policy: of the patients in the survey 25% were in hospitals that undertook weighing on all wards, 63% in hospitals that weighed patients on some wards and 11% in hospitals that did not weigh patients in any wards. In hospitals without a screening policy: of the patients in the survey only 2% were in hospitals that undertook weighing on all wards and 98% in those that undertook weighing on some wards. In hospitals where the respondents did not know if there was nutrition screening policy in place: of the patients in the survey 61% were in hospitals that undertook weighing on all wards and 39% in those that weighed patients on some wards (Total base N = 7816).

General subject characteristics

Gender: There were 5017 women and 4546 men (no gender reported on 4 subjects; total N = 9567) and a ratio of women to men of 1.1:1.0.

Age: Of the adult patients (>18 years) 55% were aged 65 years and over (total N = 9563).
The age distribution (range 18-102 years) is skewed to the left. In the figure of age distribution, frequency refers to the number of patients in each age group, which is represented by the individual bars of the histogram. For men the median age was 65.5 years (mean age 63 (sd18) years) and for women 69 years (mean age 65 (sd20)years).

Histogram

Mean =63.6
Std. Dev. =19.34
N =9,563
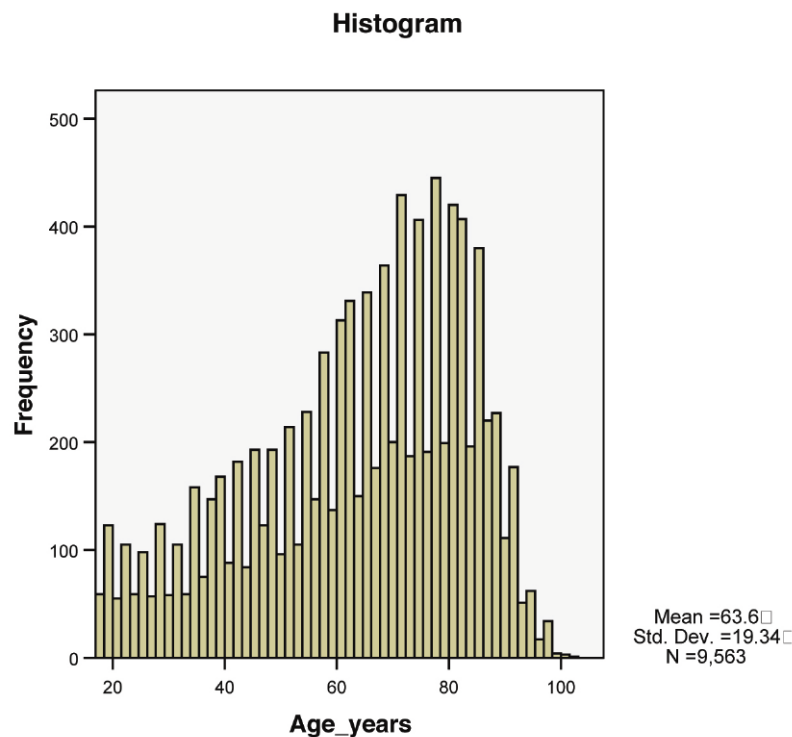
Diagnostic categories: The diagnostic categories of adult patients in the survey were as follows: gastrointestinal (GI) disease (18%), cardiovascular disease (12%), respiratory disease (11%), musculoskeletal (including orthopaedic) (17%), genito-urinary disease (7%), neurological (CNS) disease (5%), other (26%) and not known (2.0%) (Total N = 9479).

Body mass index (BMI): The mean BMI was 26.2 (sd 6.3) kg/m².
13% had a BMI less than 20kg/m² (7% less than 18.5 kg/m²), 35% a BMI between 20 and 24.9 kg/m² and 52% had a BMI > 25 kg/m² (22% >BMI 30kg/m²).

PREVALENCE OF 'MALNUTRITION'

'MALNUTRITION' (MEDIUM + HIGH RISK) ACCORDING TO RISK CATEGORY

Medium risk	6%	
High risk	22%	
Medium + high risk	28%	(Total base: N = 9336)

'MALNUTRITION' ACCORDING TO COUNTRY

England	29%	
Wales	26%	
Northern Ireland	25%	
Scotland	23%	
Overall	28%	(Total base: N = 9336)

P = 0.018

The patients were in England (76%), Wales (10%), Northern Ireland (7%), and Scotland (7%).

'MALNUTRITION' ACCORDING TO TYPE OF HOSPITAL AND OPERATIONAL HOSPITAL CHARACTERISTS

'Malnutrition' according to type of hospital

Acute hospital	27%	
Community hospital	29%	
Overall	28%	(Total base: N = 7433)

Not significant (P= 0.463)

Patients in acute hospitals accounted for 94% of all the 'MUST' results, and those in community hospitals for 4% (the type of hospital for the remaining 2% of patients (additional to N = 7433) was not reported).

'Malnutrition' according to number of hospital beds
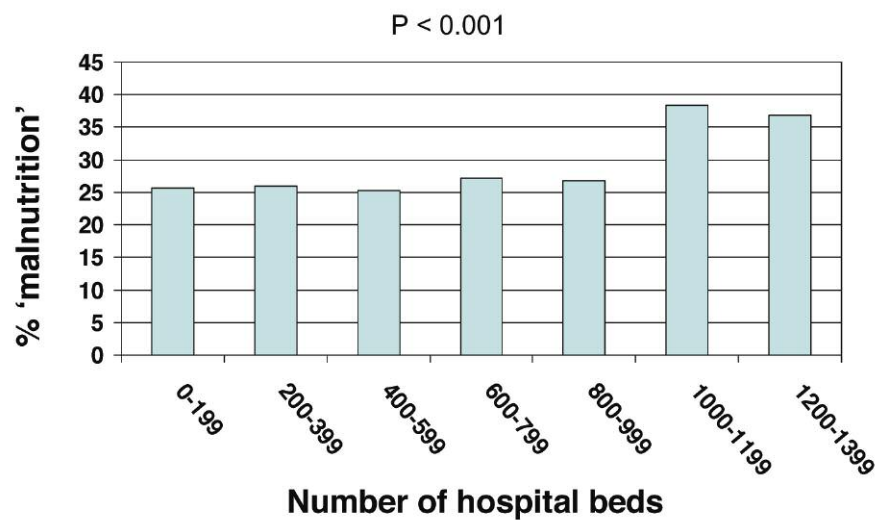
<1000 beds	26%	
>1000 beds	38%	
Overall	28%	(Total base: N = 6781)

P <0.001

Hospitals with less than 1000 beds accounted for 87% of patients who were screened.

Odds ratio (95% CI)	= 1.743 (1.501-2.024)
Adjusted odds ratio*	= 1.569 (1.363 -1.869)

* Adjusted for age, ward type, diagnostic category, and type of admission

'Malnutrition' according to type of admission

Emergency admission   32%
Elective admission   20%
Overall   28%   (Total base: N = 9137)
P <0.001

67% were emergency admissions and 33% elective.

'Malnutrition' according to source of admission

Admitted from:
Home   26%
Other hospital   31%
Other ward   32%
Care home   43%
Overall   28%   (Total base: N = 9298)
P < 0.001

76% came from their own homes, 7% from another hospital, 13% from another ward, and 3% from care homes.

'Malnutrition' according to nutrition screening policy

Nutrition screening policy:
Yes   28%
No   24%
Don't know   23%
Overall   27%   (Total base: N =7645)
P = 0.007

82% of patients were admitted to hospitals with a nutritional screening policy, 15% to hospitals without a screening policy and 3% to hospitals where the reporters did not know if there was a screening policy.

'Malnutrition' according to audit on nutritional screening

Nutrition screening audit:
Yes   27%
No   31%
Don't know   27%   (Total base: N = 7645)
P = 0.036

86% of patients were admitted to hospitals that did not audit nutritional screening, 10% into hospitals that did, and 4% into hospitals in which the reporters did not know whether auditing took place.

'Malnutrition' according to proportion screened

0-25% screened   31%:
26-50% screened   25%
51-75% screened   26%
76-100% screened   27%
Overall   27%   (Total base: N = 4531)
P = 0.043

17% of patients were reported from hospitals in which 0-25% of patients were screened, 17% in which 26-50% were screened, 35% in which 51-75% were screened, and 31% in which 76-100% were screened.

'MALNUTRITION' RISK ACCORDING TO TYPE OF WARD

P<0.001

N = 8973
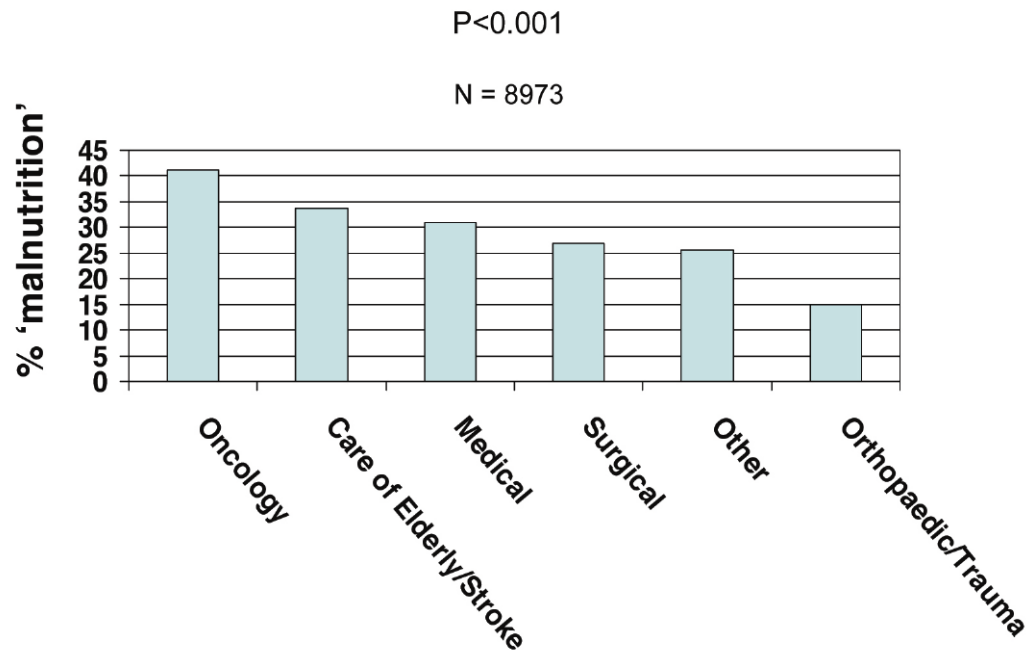
5% of patients were in Oncology wards, 10% in Care of the Elderly/Stroke, 35% in Medical wards, 29% in Surgical wards, 8% in other types of wards, and 13% in Orthopaedic/Trauma wards.

MALNUTRITION RISK ACCORDING TO SUBJECT CHARACTERISTICS

Malnutrition risk according to gender

Women   29%
Men   26%
Overall   28%   (Total base: N = 9338)
P <0.001

Risk increased with age and women were significantly older than men, but women remained at greater risk even after adjustment for age (binary logistic regression).

Women accounted for 53% of all patients and men for 47%.

Malnutrition risk according to age

A substantial malnutrition risk was present at all ages.
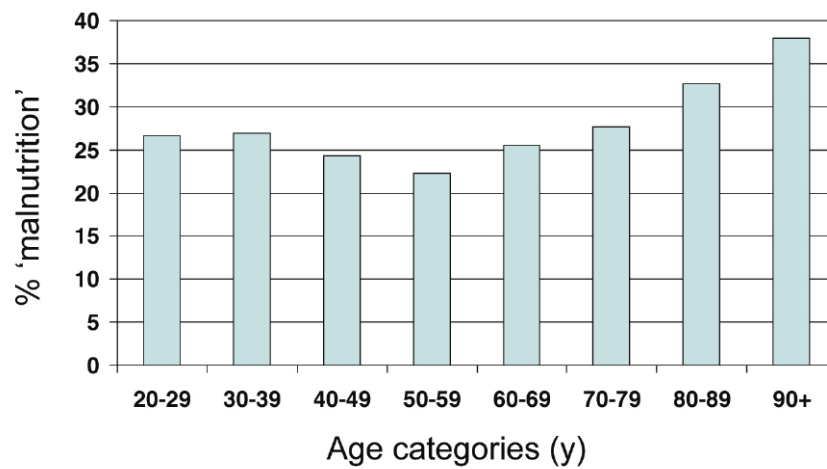
The risk was 25% in patients <60 years, 27% in those aged 60-79years and 34% in those ≥80 years. It was 25% greater in patients aged 65years and over than those <65 years ((24% v 30; p = 0.001).

Contribution of a low BMI to 'MUST' score
Underweight (BMI <20kg/m²) contributed to the 'MUST score in 43% of 'malnourished' patients.

'Malnutrition' according to diagnostic category

P<0.001

N=9290
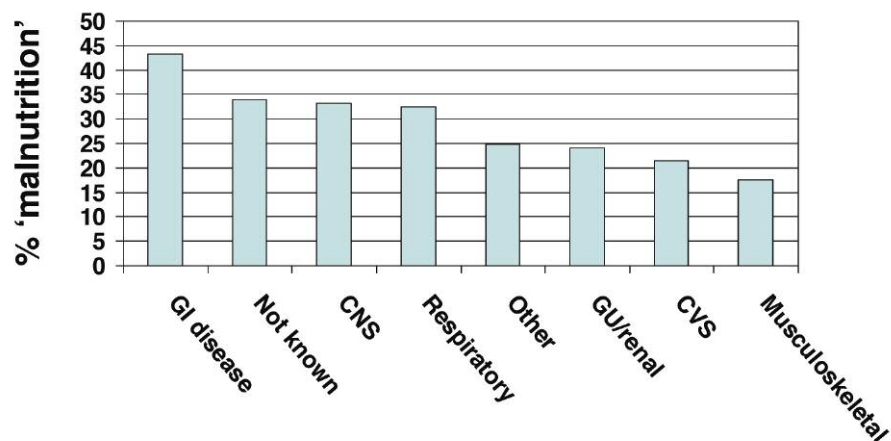
Of the patients screened 18% had GI (gastrointestinal) disease, 2% diagnoses not known, 5% neurological (CNS) diseases, 11% respiratory disease, 27% other diagnoses, 7% GU(genitourinary)/renal, disease, 13% cardiovascular (CVS) disease, and 17% musculoskeletal disease.

Malnutrition according to presence of other conditions

No   24%

Yes   30%

Don't know   22%

Overall   28%   (total base: N = 9338)

P <0.001

37% of all patients had no other conditions and 61% did. There was uncertainty (don't know) in the remaining 2%.

Comments – Hospital Survey

This survey on nutritional screening in hospitals is the largest of its kind in the UK. Although the sample was not chosen randomly from UK hospitals, the results clearly show that 'malnutrition' is common on admission to acute and community hospitals, all types of wards, and all age groups and diagnostic categories. Overall, malnutrition risk was identified in 28% of patients admitted to hospital, most of whom had high risk of malnutrition (22%) and only a minority medium risk (6%).

The admission prevalence of 'malnutrition' is not the same as the ward prevalence of 'malnutrition'. The latter is expected to be greater than the admission prevalence, since 'malnourished' patients stay in hospital longer than non-malnourished patients. With an admission prevalence of 28% and a 30% longer length of hospital stay in malnourished patients, the ward prevalence of 'malnutrition' can be calculated to be 33.6% (assuming that there is no mortality and that no 'malnutrition' develops during hospital stay) [8]. A number of studies have reported length of stay to be 20-75% longer in malnourished than non–malnourished patients. Ward prevalence can therefore be estimated to be 36.7% when the length of hospital stay is 50% longer in malnourished than non-malnourished patients [8] . Thus, hospital malnutrition is not a trivial problem that can be ignored, but a major problem that needs multidisciplinary attention.

Unlike the community, where the prevalence of 'malnutrition' is several-fold greater (per 100 subjects) in older than younger adults (>65 years v <65 years), in hospitals it was found to be only 25% greater on admission among older patients (consistent with the results of a national survey in The Netherlands [9]). This is because patients admitted to hospital often have severe disease in association with malnutrition, irrespective of age. In this survey older people accounted for a disproportionately large fraction of the adult patients admitted to hospital (about half, which is a typical contribution), compared to their contribution to the general population in the community.

Since nutritional risk was assessed on admission to hospital, its presence indicates that it had largely developed in the community. Strategies to prevent and treat malnutrition before admission to institutions should be considered in more detail.

As many as a quarter of the patients admitted to hospitals came from other wards, other hospitals, or care homes, all of which had a greater prevalence of 'malnutrition' than those admitted from their own homes. Variations in the source of admission did not explain differences in 'malnutrition' prevalence between larger and smaller hospitals (>1000 beds (38% 'malnutrition'), <1000 beds (26% 'malnutrition'), the presence or absence of a screening policy (28% v 24%), or the proportion of patients screened on admission to hospital.

In hospitals with a screening policy; of the patients in the survey 25% were in hospitals that undertook weighing on all wards whereas in hospitals without a screening policy only 2% of patients in the survey were in hospitals that weighed patients on all wards. This would suggest that much malnutrition is unrecognised.

The proportion of underweight patients admitted to hospitals (BMI <20 kg/m² (13%) (7% below BMI 18.5 kg/m²)) is several-fold greater than the proportion in the community. The high prevalence of obesity on admission to hospital (22%) reflects the growing obesity problem in the community as a whole. Implementation of behavioural and life-style strategies requires a community focus, although hospitals should be included in such strategies. Similar joined up thinking is required for malnutrition.

Care Home Survey

GENERAL FEATURES

Total number of subjects (not all questions completed on all subjects)

1610 individual residents
1610 with 'MUST' scores (all >18 years)

Care Homes

Number of Care Homes

173

Nutrition service, screening policy, audit, and measurement of weight and height on admission

	Nutrition service available (%)	Nutrition screening policy (%)	Nutrition screening audited (%)	Weight on admission (%)	Height on admission (%)
Yes	84	82	68	98	71
No	10	12	18	1	23
Don't know	5	7	14	1	6
Total	100*	100*	100	100	100
Number of care homes	173	173	173	173	173

* Results do not add up to 100% due to rounding up of the component values to the nearest 1%.

Percent of residents screened: 1% of care homes screened 25-50% of residents, another 1% screened 50-75% of residents, and the remaining 98% screened 75-100% residents (Total base N = 173 care homes).

13

General subject characteristics

Gender: There were 1095 women and 515 men (total N = 1610) Ratio of women to men, 2.1:1.0.

Age: The mean age was 83.3 (sd 9.5) years (median 85.0 years; inter-quartile range 79-89 years) (N = 1570). Women (N =1066) were older than men (N = 504) (mean 84.4 (sd 8.7) v 81.0 (sd 10.6) years; median 86 v 83 years; P < 0.001). 96% of the residents were 65 years and over. In the figure of age distribution, frequency refers to the number of residents in each age group, which is represented by the individual bars of the histogram.

Histogram

Mean =83.3
Std. Dev. =9.498
N =1,570
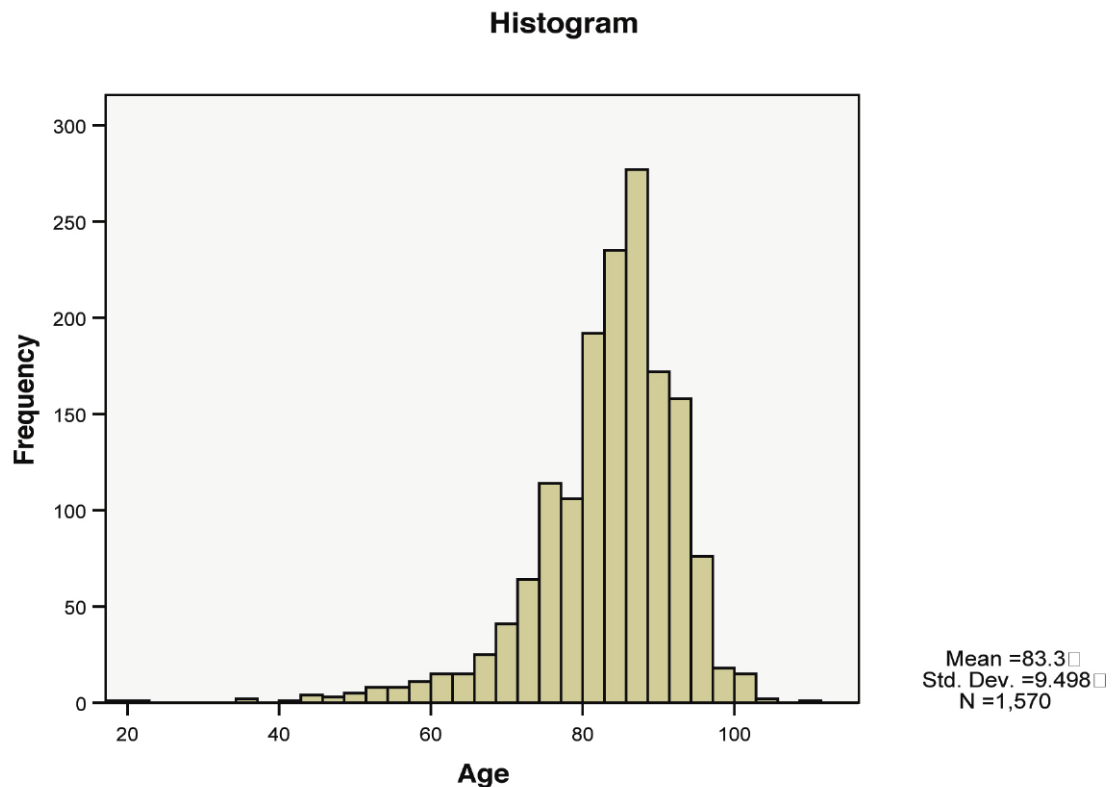
Body mass index (BMI): The mean BMI was 23.4 (sd 5.5) kg/m².

28% of residents had a BMI less than 20 kg/m² (18% less than 18.5 kg/m²), 40% a BMI between 20 and 24.9 kg/m² and 32% had a BMI > 25 kg/m² (10% >BMI 30kg/m²) (Total N = 1570). In the figure of BMI distribution, frequency refers to the number of residents in each BMI group, which is represented by the individual bars of the histogram.

Histogram

Mean =23.3729
Std. Dev. =5.5479
N =1,423
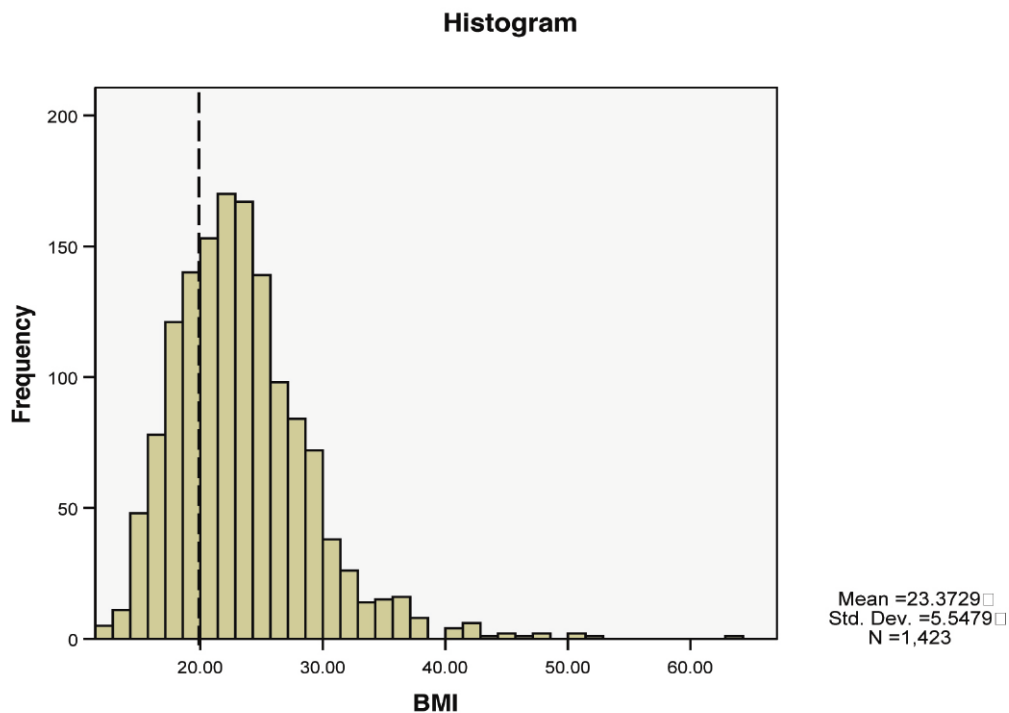
Diagnostic categories: CNS (stroke, dementia, Parkinson's disease, Alzheimer's disease, multiple sclerosis) 50%; frail elderly (various reasons) 18%; musculoskeletal (including orthopaedic) 9%; cardiovascular disease, 6% respiratory disease 4% genito/renal disease 2%; gastrointestinal disease 2%; other 9%. (N = 1587). CNS disease in subjects from residential homes (41%) and nursing homes (48%) was less common than those from EMI (Elderly Mentally Ill) homes (87%).

PREVALENCE OF 'MALNUTRITION'

'MALNUTRITION' (MEDIUM + HIGH RISK) ACCORDING TO RISK CATEGORY

Medium risk	10%	
High risk	20%	
Medium + high risk	30%	(Total base: N = 1610)

'MALNUTRITION' ACCORDING TO COUNTRY

England   30%
Wales   27%
Northern Ireland   35%
Scotland   29%
Overall   30%   (Total base: N = 1610)

Not significant (P = 0.553)

The residents were in England (78%), Wales (3%), Northern Ireland (10%), and Scotland (10%).

'MALNUTRITION' ACCORDING TO TYPE OF CARE HOME AND CARE HOME CHARACTERISTICS

'Malnutrition' according to type of care home

Nursing homes only   35%
Residential homes only 22%
Others   32%
Overall   30%   (Total base: N = 1610)

P < 0.001

26% of residents were in homes that were exclusively nursing homes, 22% in homes that were exclusively residential homes and most of the remainder were in homes that were a combination of two or more different types of care homes (Nursing homes, Residential homes, Elderly Mentally Ill homes and homes for the Disabled).

'Malnutrition' according to number of care home beds

NS

N = 1353
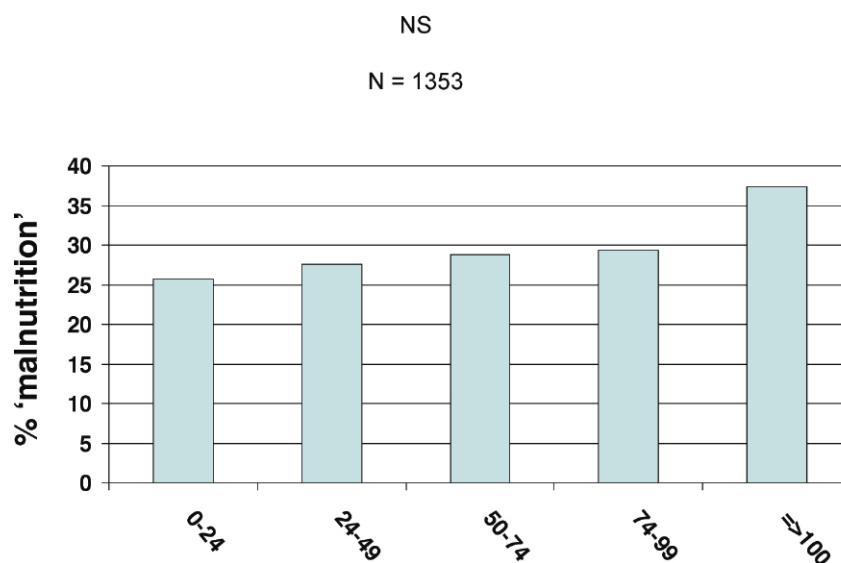
The trend for malnutrition risk to increase with number of beds in the care home was not statistically significant (P(linear trend) = 0.075).

'Malnutrition' according to source of admission

Home	24%
Hospital	35%
Other care home	31%
Overall	30% (Total base: N = 1589)

P <0.001

37% of all residents were admitted from their own homes, 44% from a hospital and 19% from another care home.

'Malnutrition' according to duration in care home

0-1 month	27%
2-3 months	32%
4-6 months	31%
Overall	30% (Total base: N = 1609)

Not Significant (P = 0.228)

25% of residents were admitted in the previous month, 31% in the previous 2-4 months and 44% in the previous 4-6 months.

'Malnutrition' according to screening policy

Nutrition screening policy:

Yes	31%
No	23%
Don't know	18%
Overall	29% (Total base: N = 1363)

P = 0.003

82% were resident in care homes with a screening policy, 8% in care homes that did not have a policy and 10% in care homes where the respondents did not know whether there was a screening policy in place.

'Malnutrition' according to percent of residents screened

98% of residents were in care homes that screened 75 -100% of residents ('malnutrition' prevalence 31%).

'MALNUTRITION' ACCORDING TO SUBJECT CHARACTERISTICS

'Malnutrition' according to gender

Women   32%
Men   27%
Overall   30%   (Total base: N = 1610)
P = 0.066
68% of the residents were women and 32% men.

'Malnutrition' according to age

<70 years   26%
70-84 years   29%
≥85 years   32%
Overall   30%

P(linear trend) = 0.086
7% of residents were less than 70 years, 42% 70-84 years, and 51% 85 years and over.

'Malnutrition' according to primary problem

P<0.001

N = 1587
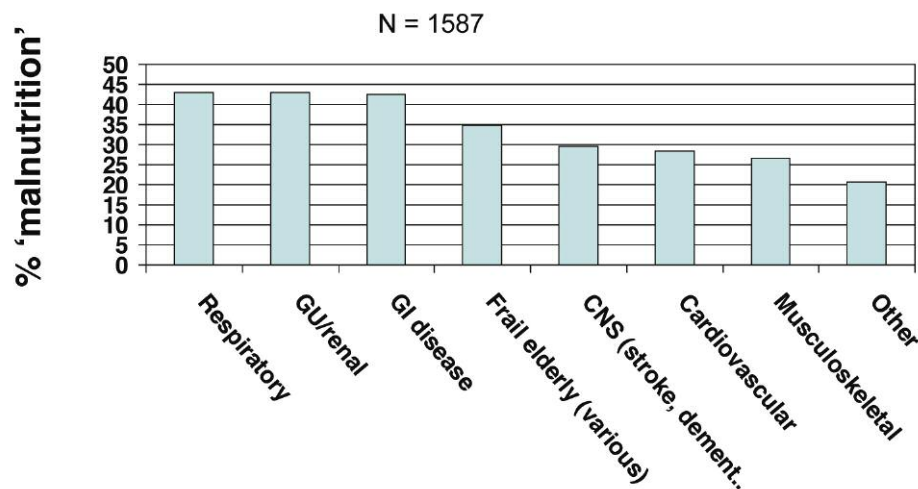
4% had respiratory conditions, 2% GU (genito-urinary) renal conditions, 2% GI (gastrointestinal) conditions, 18% had frailty (frail elderly), 50% had neurological (CNS) conditions (including stroke, dementia, Parkinson's disease, Alzheimer's disease), 6% cardiovascular disease, 9% had musculo-skeletal conditions (including orthopaedic), 9% other conditions.

'Malnutrition' according to presence of other conditions

No   29%
Yes   31%
Don't know   37%
Overall   30%   (total base: N = 1610)

P = 0.364

35% of all residents had no other conditions and 62% did. There was uncertainty (don't know) in the remaining 3%.

Comments – Care Home Survey

Using the same screening procedure ('MUST'), the prevalence of malnutrition in care homes (30%) was found to be similar to that in hospitals (28%). More than a quarter of the residents in care homes were thin with a BMI of less than 20 kg/m². The overall mean BMI in care homes was 23.4 kg/m², significantly lower than that in hospitals (mean BMI 26.2 kg/m²). The median age was significantly greater in care home residents (85 v 65 years). The prevalence of 'malnutrition' in nursing homes (35%) was greater than residential homes (22%), perhaps reflecting the presence of more severe disease in nursing homes.

Half the residents had neurological conditions, in which the prevalence of 'malnutrition' was intermediate between that found in respiratory conditions (43%) and musculoskeletal conditions (21%), which accounted for 5% and 9% of the residents screened in care homes respectively.

There was a tendency for 'malnutrition' to increase with duration of stay in the care home (cross sectional data up to 6 months) and for 'malnutrition' to increase with the number of beds in care homes, but neither of these two results reached statistical significance.

Mental Health Unit Survey

Total number of subjects (not all questions completed on all subjects)

> 336 individual patients reported
> 333 with 'MUST' ('Malnutrition Universal Screening Tool') scores
> 332 with 'MUST' scores in patients 18 y and over

Mental Health Units

Number of Long-term/Rehabilitation units

22 Mental Health Units (12 Acute, 5 Long-term/Rehabilitation units, 5 Acute + Long-term/Rehabilitation Units), of which 21 were in England and one in Scotland.

Policies, audit and access to nutrition support team

	Nutrition policy (%)	Nutrition screening policy (%)	Nutrition screening audited (%)	Access to nutrition support team (%)	Weight on admission (%)	Height on admission
Yes	41	46	36	41	100	82
No	36	32	55	59		14
Don't know	23	23	9	0		5
Total	100*	100*	100	100	100	100
Number of Mental Health Units	22	22	22	22	22	22

* Results do not add up to 100% due to rounding up of the component values to the nearest 1%.

Percent of patients screened: 7% of units screened 25-50% of patients, 7% of hospitals screened 50-75% of patients, and 84% of units screened 75-100% patients (Total base N = 15 Mental Health Units).

General subject characteristics

Gender: There were 177 women and 156 men (total N = 333)

Ratio of men to women 1.1 : 1.0

Age: The mean age was 59.2 (sd 20.0) years (median 63 years; inter quartile range 41-76 years). In the figure of age distribution, frequency refers to the number of subjects in each age group, which is represented by the individual bars of the histogram.

Histogram

Mean =59.21
Std. Dev. =19.992
N =333
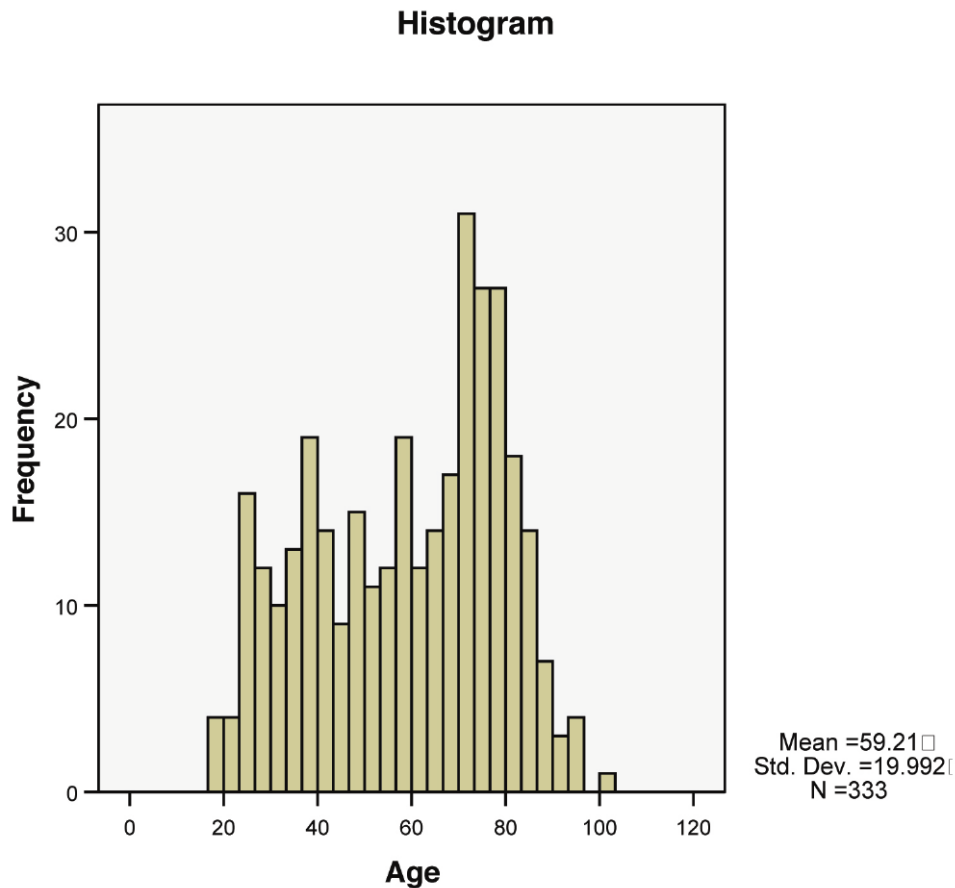
Women were older than men (mean 62.4 (sd 18.7) years v 55.6 (sd 20.8) years; p <0.001; median 67 v 57.5 years). The age differed according to the type of Mental Health Unit (mean (sd)): Acute Units, 53.8 (21.5) years (12% of all patients); Long stay/Rehabilitation Units, 66.3 (18.6) years (18% of all patients); and Acute + Long stay/Rehabilitation Units, 58.2 (19.5) years (70% of all patients).

Body mass index (BMI): The mean BMI was 25.7 (sd 6.0) kg/m².
14% had a BMI less than 20 kg/m² (8% less than 18.5 kg/m²), 38% a BMI between 20 and 24.9 kg/m² and 48% had a BMI ≥ 25 kg/m² (21%, BMI ≥ 30 kg/m²).

PREVALENCE OF 'MALNUTRITION'

'MALNUTRITION' ACORDING TO RISK CATEGORY

Medium risk	7%	
High risk	12%	
Medium + high risk	19%	(Total base: N = 332)

'MALNUTRITION' ACORDING TO COUNTRY

England	18%	
Scotland	33%	(but a total of only 12 patients from Scotland)
Overall	19%	(Total base: N = 332 patients)
P = 0.196		

The patients were in England (96%) and Scotland (4%).

ACCORDING TO TYPE OF MENTAL HEALTH UNIT AND OPERATIONAL CHARACTERISTS

'Malnutrition' according to type of Mental Health Unit

Acute	31%	
Long stay/Rehabilitation	21%	
Acute and Long stay/Rehabilitation	17%	
Overall	19%	(Total base: N = 320)

P = 0.117

12% of all the 'MUST' results came from Acute units, 18% from Long stay/Rehabilitation units and 70% from a combination of both types of units.

'Malnutrition' according to number of beds in Mental Health Units

<100beds	30%	
≥100 beds	17%	
Overall	20%	(total base: N = 267)

P = 0.024

24% of patients were in Mental Health Units with <100 beds and 76% in units with 100 or more beds. 6% of all patients were in Acute Units with >100 beds and 42% in Acute Units with <100 beds. 5% of all patients were in Long stay/Rehabilitation Units with >100 beds and 47% in units with <100beds. 89% of all patients were in Acute + Long stay/Rehabilitation Units with >100beds and 11% in units with <100 beds.

'Malnutrition' according to source of admission

Home	19%	
Other hospital	24%	
Other ward	21%	
Care home	12%	
Overall	19%	(total base: N = 304)

P = 0.507

54% of patients were admitted from home, 22% from hospital, 10% from other wards, and 14% from care homes.

'Malnutrition' according to Nutrition Screening Policy

Nutrition screening policy:

Yes	33%	
No	16%	
Don't know	15%	
Overall	19%	(total base: N = 307)

P = 0.008

22% of all patients were in units that had no nutrition policy, 67% in units with a policy, and 11% in units where the respondents did not know if there was a nutrition policy in place.

'Malnutrition' according to access to Nutrition and Dietetic Service

Of the respondents (N = 307) all had access to a Nutrition and Dietetic Service.

'Malnutrition' according to access to Nutrition Support Team

Yes	39%	
No	17%	
Overall	20%	(total base: N =307)

P = 0.002

Only 13% (N = 39) of all patients were in units that had access to a Nutrition Support Team

'MALNUTRITION' ACCORDING TO SUBJECT CHARACTERISTICS

'Malnutrition' according to gender

Women	24%
Men	14%
Overall	19% (total base: N = 332)

$P = 0.018$

53% of all patients were women and 47% men.

'Malnutrition' according to age category

< 65 years	14%
≥65 years	24%
Overall	19% (total base: N = 332)

$P = 0.021$

53% of all the patients were aged less than 65 years and 47% 65 years and over.

'Malnutrition' according to presence of other conditions

Other conditions:

No	16%
Yes	22%
Overall	19% (total base: N = 330)

$P = 0.148$

47% of all patients had no other conditions and 53% did.

Comments – Mental Health Unit Survey

Although the information obtained in the survey on Mental Health Units using 'MUST' is novel, it is limited by sample size (total N = 336). No data were obtained from Wales and Northern Ireland, and very few patients were reported from Scotland. Therefore the data presented largely reflect results from England.

The prevalence of 'malnutrition' was found to be 19%, which is lower than that found in hospitals and care homes. However, patients from acute units exclusively (prevalence of 'malnutrition', 31%) were underrepresented. They accounted for only 12% of the patient sample used in this analysis, whereas units admitting only patients with acute problems accounted for 55% of all the mental health units involved in the survey. Most of the 'malnutrition' was high risk, a pattern also observed in hospitals and care homes.

'Malnutrition' was greater in older people (≥65 years) than younger patients (<65 years) (24% v 14% 'malnutrition') and in women than in men (24% v 14% 'malnutrition'), who were younger than women.

There was more 'malnutrition' in units with access to a nutrition support team. The presence of more 'malnutrition' probably led to the need to seek access to nutrition support teams to provide advice on its management.

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Acknowledgements

Appendices

BAPEN Nutrition Screening Week 2007 Audit Forms & Guidance Notes for Hospitals, Care Homes and Mental Health Units

Appendix 1 - Hospitals

<div style="border:1px solid">

Sheet 1(a) for Hospitals   *Information about your Hospital*

Hospital Name ……………………………. **Code Number** ……………

</div>

Please complete by putting an X in the appropriate boxes. Please use **black ink.**

1a.   What type of hospital?

☐ Teaching   ☐ Non Teaching

1b.   ☐ Acute   ☐ Mental Health   ☐ Community

2.   How many beds? Please state number …………………………

3.   Do you have access to a Nutrition and Dietetic service?   ☐ Yes   ☐ No   ☐ ?

4.   Do you have access to a Nutrition Support team?   ☐ Yes   ☐ No   ☐ ?

5.   Does your hospital / Trust have a Nutrition policy?   ☐ Yes   ☐ No   ☐ ?

6.   Does your hospital / Trust have a Nutrition Screening policy?   ☐ Yes   ☐ No   ☐ ?

7a.   Do you know what % patients are screened on admission?   ☐ Yes   ☐ No   ☐ ?

7b.   If you have answered 'Yes' to 7a please indicate % of patients screened on admission:

☐ Up to 25%   ☐ 26-50%   ☐ 51-75%   ☐ 76-100%

8.   Are patients routinely weighed on admission?

☐ Yes on all wards   ☐ On some wards   ☐ No   ☐ ?

9.   Is the height of patients routinely recorded?

☐ Yes on all wards   ☐ On some wards   ☐ No   ☐ ?

10.   Is the practice of nutrition screening audited?   ☐ Yes   ☐ No   ☐ ?

Thank you

Hospital Sheet 2 (a) (Patient / client data)

To be collected within 72 hrs of admission

NSW Nutrition Screening Week

Code Number: _____   Ward/location name: _____   Date: _____

Patient Number	Age	Sex	Type of ward *	Where admitted from **	Diagnostic category ***	Other current medical conditions	Oedema present?	Weight (Kg)			Height (m) If not available calculate from Ulna length				Unintentional weight loss (past 3–6mths)	Food intake over past 5 days			Likely food intake over next 5 days			Type of admission	
	Yrs	M/F	1-6 *	1-4 **	1-8 ***	Y/N	Y/N	Actual	Recalled	N/A ****	Actual	Recalled	Calculated	Kg	Normal	Less than normal	V Little or None	Normal	Less than normal	V Little or None	EL	EM

* Type of Ward
1. Medical, **2.** Surgical, **3.** Orthopoedic/trauma, **4.** Care of the Elderly/Stroke, **5.** Oncology, **6.** Other (Please specify)

** Where admitted from
1. Home, **2.** Other hospital, **3.** Other ward, **4.** Care Home.

*** Diagnostic Category
1. CNS, **2.** GI Disease, **3.** Respiratory Disease, **4.** Cardio-vascular Disease, **5.** Genito/ Renal Disease, **6.** Musculoskeletal (including orthopaedic) conditions, **7.** Other, **8.** Not known

**** Weight: when not available
1. Underweight, **2.** Normal weight , **3.** Overweight

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Guidance Notes: Hospitals

Thank you for participating in the Nutrition Screening Week. The aim of the survey is to establish the prevalence of the risk of malnutrition in patients and clients admitted to hospitals and care homes in the UK. The results will be presented at the BAPEN Conference in Harrogate in November 2007. Additionally we will analyse and send you the results of your data to enable you to report the scale of the problem in your locality and to compare your data with the national picture. Participating in the Nutrition Screening Week will help demonstrate how you are striving to achieve nutritional standards and your commitment to meeting the nutritional needs of your patients or clients.

The survey is based on 2 questionnaires, a general questionnaire about your hospital and practice of nutritional screening (Sheet 1(a)) and a patient /client data collection sheet (Sheet 2 (a)). Please read the following guidance notes carefully before completing the forms.

Sheet 1(a): Please answer on behalf of your hospital within your Trust. Please provide the information for the hospital as a whole not a particular area / unit within it. If you wish to include more than 1 hospital within your Trust, please use a separate set of documentation for each hospital.

You will be issued with a code number for each hospital, please write it in the space on the form.

If you don't know the answer to any question, please put an x in the box with a question mark beside it.

Sheet 2(a) Patient / Client data: Please collect the required information on all patients admitted to medical, surgical, orthopaedic/ trauma, care of the elderly, stroke and oncology wards in your hospital between 00.01 hrs on 25th September and 23.59 hrs on 27th September. The data should be collected within 72 hours of the patient's admission. If you would like to collect data on patients admitted to other wards, you may do so, but please specify what type of ward it is in the space at the top of the sheet.

If patients were screened on admission and the information required is already available and documented in the patients' notes, then this can be directly entered onto the record sheets. If not, please obtain and record the information within 72 hours of the patient's admission.

Patients admitted to these wards during the screening period who are under 16 years of age or already established on nutritional support (enteral tube feeding, PEG feeding or parenteral nutrition) *are excluded from the study and therefore should not have data recorded.* Please add any such patients to the form, but simply insert across the row next to their number what method of feeding they are on, e.g. '002 = [excluded – PEG feeding]'

Code number: Please write the same code number inserted on Sheet 1(a) onto each copy of Sheet 2(a) that you use.

Ward/location: Please write the name or number of the ward in the space at the top of Sheet 2(a) using separate sheets for each ward included in the survey.

Patient Number: Please number patients admitted to each ward 1, 2, 3 etc.

Age: Please give the age of the patient in years. There is no need to include number of months as well.

Type of ward: Please insert appropriate number (see key at the bottom of Sheet 2(a).

Where admitted from: Again, please insert appropriate number.

Diagnostic category: Please insert appropriate number. Use a "working diagnosis" if diagnosis is unconfirmed. If the primary diagnosis is an infection or cancer, please use the category number relating to the location of the infection/cancer, for example cancer of the colon should be recorded under diagnostic category 2 (GI disease); pneumonia or chest infection under category 3 (respiratory disease), a urinary tract infection (UTI) under category 5 (genito/renal disease).

Diagnostic category: Please insert appropriate number. Use a "working diagnosis" if diagnosis is unconfirmed. If the primary diagnosis is an infection or cancer, please use the category number relating to the location of the infection/cancer, for example cancer of the colon should be recorded under diagnostic category 2 (GI disease); pneumonia or chest infection under category 3 (respiratory disease), a urinary tract infection (UTI) under category 5 (genito/renal disease).

Other medical conditions: Please indicate whether the patient has other relevant medical conditions or problems. A yes or no answer only is sufficient – no specific category information is required here.

Oedema Present?: Please indicate whether the patient was or was not oedematous on admission. A yes or no answer only is sufficient.

Weight: Please state weight in Kg in appropriate column indicating if weight was an actual measurement or a weight recalled by the patient or carer. If weight of patient is not available, please assess weight status subjectively, i.e. does the patient look underweight, normal weight or overweight.

Height: Please state height in metres in appropriate column indicating if height was an actual measurement, a height recalled by the patient or carer or a value calculated from length of the ulna (see information on measurement of ulna and conversion table).

Recent unintentional weight loss: Please give amount of any weight lost unintentionally in the last 3-6mths. Please do not include any weight lost following use of diuretics. Please give value in Kg (1Kg =2.2lbs). If recent weights are not available in the patient's notes please ask the patient / carer if they know how much weight the patient has recently lost. If patient /carer does not know how much weight has been lost, insert DK (Don't know).

Food intake, past and future: Please tick the relevant boxes. Please use your professional judgement as to the likely food intake over the next 5 days. There is no need to record food intake.

Type of admission to hospital: Please tick if admission was elective (EL) or an emergency (EM).

Nutrition Screening Week

Appendix II – Care Homes

Sheet 1(b) for Care Homes	*Information about your Care Home*
Care Home Name ……………………………..	**Code Number** ……………

Please complete by putting an **X** in the appropriate boxes. Please use **black ink.**

1.   What type of Care Home? (please tick all that apply)

☐ Nursing   ☐ EMI   ☐ Disabled   ☐ Residential

2.   How many beds? Please state number …………………………

3.   Do you have access to a Nutrition and Dietetic service?   ☐ Yes   ☐ No   ☐ ?

4.   Is it your policy to weigh residents on admission?   ☐ Yes   ☐ No   ☐ ?

5a.   Are residents weighed regularly during their stay?   ☐ Yes   ☐ No   ☐ ?

5b.   If you have answered 'Yes' to 5a, please indicate how often:

☐ Monthly   ☐ As required   ☐ Other, please state ……………………

6.   Is the height of residents recorded on admission?   ☐ Yes   ☐ No   ☐ ?

7.   Do you have a Nutrition Screening Policy?   ☐ Yes   ☐ No   ☐ ?

8a.   Do you know what % of residents are screened on admission?   ☐ Yes   ☐ No   ☐ ?

8b.   If you have answered 'Yes' to 8a, please indicate that %:

☐ Up to 25%   ☐ 26-50%   ☐ 51-75%   ☐ 76-100%

9.   Is the practice of nutrition screening audited?   ☐ Yes   ☐ No   ☐ ?

Thank you

NSW Nutrition Screening Week

Care Home Sheet 2(b) Client data
To be collected for residents admitted during past 6 months

Code Number: _____

Name of Care Home/Unit: _____

Date: _____

Client/Resident Number	Age	Sex	Where admitted from	When admitted	Primary clinical problem	Other current medical conditions	Oedema present on admission?	Weight on admission (kg) Insert NA if not avail	Current Weight (kg) Insert NA if not available	Oedema present now?	Height (m). If not available calculate from Ulna			Unintentional weight loss (3-6mths)	Food intake over past 5 days		Likely food intake over ne days	
	Yrs	M/F	1-3	1-3	1-8	Y/N	Y/N/DK	Kg	Kg	Y/N	Actual	Recalled	Calculated	Kg	Normal	Less than normal / v little or none	Normal	Less than normal / v little or no

Where Admitted From
1. Home, 2. Hospital, 3. Other Care Home

When Admitted
1. Up to 1 mth ago, 2. 2-3mths ago, 3. 4-6 mths ago

Primary Clinical Problem
1. CNS(e.g stroke, dementia, Parkinson's Disease, Alzheimers, MS), 2. GI Disease, 3. Respiratory Disease, 4. Cardio-vascular Disease, 5. Genito/ Renal Disease, 6.Musculoskeletal (including orthopaedic) conditions e.g. post #NOF, 7. Frail Elderly (various reasons), 8. Other

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Guidance Notes: Care Homes

Thank you for participating in the Nutrition Screening Week. The aim of the survey is to establish the prevalence of the risk of malnutrition in patients and clients admitted to hospitals and care homes in the UK. The results will be presented at the BAPEN Conference in Harrogate in November 2007. Additionally we will analyse and send you the results of your data to enable you to report the scale of the problem in your locality and to compare your data with the national picture. Participating in the Nutrition Screening Week will help demonstrate how you are striving to achieve nutritional standards and your commitment to meeting the nutritional needs of your residents.

The survey is based on 2 questionnaires, a general questionnaire about your Care Home and practice of nutritional screening (Sheet 1(b)) and a client data collection sheet (Sheet 2 (b)). Please read the following guidance notes carefully before completing the forms.

Sheet 1(b): You will be issued with a code number for the Home, please write it in the space on the form. If you don't know the answer to any question, please put an X in the box with a question mark beside it.

Sheet 2(b) Resident / Client data: Please collect the information requested for all residents / clients who were admitted to your Care Home in the past 6 months. Patients who were already established on nutritional support (enteral tube feeding, PEG feeding or parenteral nutrition) when admitted are excluded from the study and therefore should not have data recorded. Please add any such patients to the form, but simply insert across the row next to their number what method of feeding they are on, e.g. '002 = [excluded – PEG feeding]'

Code number: Please write the same code number inserted on Sheet 1(b) onto each copy of Sheet 2(b) that you use.

Name of Care Home: Please write the name of your Care Home and /or unit in the space at the top of each Sheet 2(b) that you use.

Resident Number: Please number residents simply as 1, 2, 3 in the order in which their data is recorded.

Age: Please give age of the resident in years. There is no need to include number of months as well.

Primary Clinical Problem: Please insert appropriate number, only one number is required. If the primary diagnosis is an infection or cancer, please use the category number relating to the location of the infection/cancer, for example cancer of the colon should be recorded under diagnostic category 2 (GI disease); pneumonia or chest infection under category 3 (respiratory disease), a UTI) under category 5 (genito/renal disease)

Other Medical Conditions: Please indicate whether the resident has other relevant medical conditions or problems. A yes or no answer only is sufficient – no specific category information is required here.

Oedema Present ?: Please indicate whether the patient was oedematous on admission. A yes or no answer is sufficient. If you do not know insert DK (Don't Know). Please also indicate if resident is oedematous now. A yes or no answer is sufficient.

Weight: Please state weight (in Kg) of resident on admission using documented value in resident's notes. If weight on admission was not recorded, write NA (Not Available). Please state current weight (in kg) of resident in appropriate column. Write NA (Not Available) in box if for any reason it is not possible to weigh the resident.

Height: Please state height in metres in appropriate column indicating if height is an actual measurement, a height recalled by the resident or carer or a value calculated from length of the ulna (see information on measurement of ulna and conversion table).

Recent unintentional weight loss: Please give amount of any weight lost unintentionally in the last 3-6mths. Do not include any weight lost due to use of diuretics. Please give value in kg (1kg =2.2lbs). If recent weights are not available in the resident's notes please ask the resident / carer if they know how much weight the resident has recently lost. If resident /carer does not know how much weight has been lost, insert DK (Don't know).

Food intake, past and future: Please tick the relevant boxes. Please use your professional judgement as to the likely food intake over the next 5 days. There is no need to record food intake.

Appendix III – Mental Health Units

Sheet 1(c) for Mental Health Units	*Information about your Mental Health Unit*
Unit Name ………………………………..	**Code Number** ……………

Please complete by putting an **X** in the appropriate boxes. Please use **black ink.**

1a.   What type of hospital?

        ☐ Teaching   ☐ Non Teaching

1b.   ☐ Acute Mental Health   ☐ Long stay/rehab unit

2.   How many beds? Please state number …………………………

3.   Do you have access to a Nutrition and Dietetic service? ☐ Yes ☐ No ☐ ?

4.   Do you have access to a Nutrition Support team? ☐ Yes ☐ No ☐ ?

5.   Does your unit / Trust have a Nutrition policy? ☐ Yes ☐ No ☐ ?

6.   Does your unit / Trust have a Nutrition Screening policy? ☐ Yes ☐ No ☐ ?

7a.   Do you know what % patients are screened on admission? ☐ Yes ☐ No ☐ ?

7b.   If you have answered 'Yes' to 7a please indicate % of patients screened on admission:

        ☐ Up to 25%   ☐ 26-50%   ☐ 51-75%   ☐ 76-100%

8.   Is it your policy to weigh patients on admission? ☐ Yes ☐ No ☐ ?

9a.   Is it your policy to weigh patients on admission? ☐ Yes ☐ No ☐ ?

9b.   If you have answered 'Yes' to 9a, please indicate how often:

        ☐ Monthly   ☐ As required   ☐ Other, please state ……………………

10.   Is the height of patients recorded on admission? ☐ Yes ☐ No ☐ ?

11.   Is the practice of nutrition screening audited? ☐ Yes ☐ No ☐ ?

Thank you

NSW Nutrition Screening Week

Mental Health Unit (Acute - 2c$_1$) (Patient / client data)

To be collected within 72 hrs of admission

Code Number: _____

Ward/location name: _____

Date: _____

Patient Number	Age	Sex	Type of ward *	Where admitted from **	Diagnostic category	Other current medical conditions	Oedema present?	Weight (Kg)			Height (m) if not available calculate from Ulna length				Unintentional weight loss (past 3–6mths)	Food intake over past 5 days			Likely food intake over next 5 days			Type of admission	
	Yrs	M/F	1-3	1-4 **	9	Y/N	Y/N	Actual	Recalled		Actual	Recalled	Calculated	N/A ***	Kg	Normal	Less than normal	V Little or None	Normal	Less than normal	V Little or None	EL	EM
					9																		
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					9																		
					9																		

* Type of Ward
1. Mental Health (acute) 2. Psychiatric ITU 3. Other (please specify)

** Where admitted from
1. Home, 2. Other hospital, 3. Other ward, 4. Care Home.

*** Weight: when not available
1. Underweight, 2. Normal weight , 3. Overweight

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Mental Health Unit (Longer stay/rehab - 2c$_2$) Client data

To be collected for clients admitted during past 6 months

Code Number:

Name of Unit:

Date:

Client/Resident Number	Age	Sex	Where admitted from	When admitted	Ward Type	Other current clinical conditions?	Weight on admission (kg) Insert NA if not avail.	Current Weight (kg) Insert not available	Height (m). If not available calculate from Ulna			Unintentional weight loss (3-6mths)	Food intake over past 5 days			Likely food intake over next... days		
	Yrs	M/F	1-4	1-3	9-13	Y/N	Kg	Kg	Actual	Recalled	Calculated	Kg	Normal	Less than normal	v little or none	Normal	Less than normal	v little or no

Where Admitted From

1. Home, 2. Hospital, 3. Care Home, 4. Other Unit

When Admitted

1. Up to 1 mth ago, 2. 2-3mths ago, 3. 4-6 mths ago

Ward Type

9. Rehabilitation Ward, 10. Elderly Mental Health, 11. Learning Disabilites Unit, 12.Personality Disorders Unit, 13. Other (please specify)

Royal College of Nursing

NHS National Patient Safety Agency

THE BRITISH DIETETIC ASSOCIATION

BAPEN Advancing Clinical Nutrition www.bapen.org.uk

Guidance Notes: Mental Health Units

Thank you for participating in the Nutrition Screening Week. The aim of the survey is to establish the prevalence of the risk of malnutrition in patients and clients admitted to hospitals and care homes in the UK. The results will be presented at the BAPEN Conference in Harrogate in November 2007. Additionally we will analyse and send you the results of your data to enable you to report the scale of the problem in your locality and to compare your data with the national picture. Participating in the Nutrition Screening Week will help demonstrate how you are striving to achieve nutritional standards and your commitment to meeting the nutritional needs of your clients.

The survey is based on 2 questionnaires, a general questionnaire about your Unit and practice of nutritional screening (Sheet 1(c)) and client data collection sheets (Sheets 2(c1) and/or 2(c2). Please read the following guidance notes carefully before completing the forms.

Sheet 1(c): You will be issued with a code number for the Unit, please write it in the space on the form. If you don't know the answer to any question, please put an X in the box with a question mark beside it.

Sheet 2(c1) Patient / Client data: This form is specifically for patients on acute MH wards (including psychiatric intensive care). Please collect the required information on all patients admitted to the acute mental health wards in your hospital between 00.01 hrs on 25th September and 23.59 hrs on 27th September. The data should be collected within 72 hours of the patient's admission.

Sheet 2(c2) Client/Resident data: This form should be used for longer stay/rehabilitation Mental Health wards/units. Please collect the information requested for all residents / clients currently on the unit who were admitted within the past 6 months.

Clients who were already established on nutritional support (enteral tube feeding, PEG feeding or parenteral nutrition) when admitted are excluded from the study and therefore should not have data recorded. Please add any such clients to the form, but simply insert across the row next to their number what method of feeding they are on, e.g. '002 = [excluded – PEG feeding]'

Code number: Please write the same code number inserted on Sheet 1(c) onto each copy of Sheet 2(c) that you use.

Name of Unit: Please write the name of the Unit in the space at the top of each Sheet 2(c) that you use.

Client Number: Please number clients simply as 1, 2, 3 in the order in which their data is recorded.

Age: Please give age of the client in years. There is no need to include number of months as well.

Type of Ward/Unit: Please insert appropriate number, only one number is required.

Other Clinical Conditions: Please indicate whether the client has other relevant medical conditions or problems. A yes or no answer only is sufficient – no specific information is required here.

Weight: Please state weight (in Kg) of client on admission using documented value in client's notes. If weight on admission was not recorded, write NA (Not Available). Please state current weight (in kg) of client in appropriate column. Write NA (Not Available) in box if for any reason it is not possible to weigh the client.

Height: Please state height in metres in appropriate column indicating if height is an actual measurement, a height recalled by the client or carer or a value calculated from length of the ulna (see information on measurement of ulna and conversion table).

Recent unintentional weight loss: Please give amount of any weight lost unintentionally in the last 3-6mths. Do not include any weight lost due to use of diuretics. Please give value in kg (1kg =2.2lbs). If recent weights are not available in the client's notes please ask (if appropriate) the client / carer if they know how much weight the client has recently lost. If client /carer does not know how much weight has been lost, insert DK (Don't know).

Food intake, past and future: Please tick the relevant boxes. Please use your professional judgement as to the likely food intake over the next 5 days. There is no need to record food intake.

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