



FOOD FIRST

- guidance for health professionals on the identification and treatment of people who are nutritionally at risk.

Includes:

- tools for assessing an individual's nutritional status
- dietary advice
- advice on the appropriate prescribing, use and monitoring of proprietary feeds
- specific recommendations for people with diabetes and palliative care

May 2001

*Updated 2010
Reviewed September 2014
Amended July 2017
to reflect change in contract with Fresenius*

Available in electronic format from www.elmmb.nhs.uk/policies-and-guidelines

TABLE OF CONTENTS

1	INTRODUCTION & BACKGROUND
2	COMMUNITY NUTRITIONAL SCREENING TOOL
2.1	BMI Chart
2.2	Weight Loss Score
2.3	Alternative Measurements
2.4	MUST Score 1 Care Pathway
3.0	FIRST LINE DIETARY ADVICE
3.1	Additional points to consider
3.2	Example of a Fortified Diet
4.0	CONSIDERATIONS IN DIABETES
4.1	First Line Dietary Advice
4.2	Additional Considerations
4.3	Prescribing Sip Feeds to People with Diabetes
4.4	CONSIDERATIONS IN PALLIATIVE CARE
5	ACKNOWLEDGEMENTS
	REFERENCES AND FURTHER READING
	APPENDICES:

Appendix one: Food Boosters

Appendix two: Advice for a Soft Diet

Appendix three: Advice for Nausea

Appendix four: Advice for Constipation

Appendix five: Advice for a Dry Sore Mouth and Taste Changes

SECTION 1 INTRODUCTION & BACKGROUND

This pack has been designed to help you identify and treat adults, malnourished people and those that are at risk of developing malnutrition (protein energy undernutrition). Children and people with special requirements e.g. renal disease, liver disease, malabsorption or eating disorders should be referred to a state registered dietitian. The guidelines may require modification for people in nursing or residential homes.

Malnutrition is an important and increasing health problem in the UK. It is estimated that up to 40% of hospital patients are clinically malnourished when admitted (Elia et al 2005 and McWhirter and Pennington, 1994). At any one point in time, three million people are living at a high risk of malnutrition, with a vast majority 93% living in the community, 2-3% in sheltered housing, and the remainder in either hospital or care homes (BAPEN 2009). It is estimated that 5-23% of patients visiting their GP, 25% of patients receiving District Nursing care and 16-29% of people living in institutions are malnourished.

Definition and Causes of Malnutrition

Malnutrition 'is a state of nutrition 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) and function, and clinical outcome' (Elia 2003) It is used here to refer to undernutrition

In the UK, the primary cause of malnutrition is disease; hence the term disease related malnutrition. Disease related malnutrition arises when nutritional intake does not meet nutritional needs because of:

- Decreased dietary intake
- Increased nutritional requirements
- Impaired ability to absorb or utilise nutrients

The burden of malnutrition is greater in areas of deprivation and is associated with a number of socio-economic factors including: poverty, social isolation and substance misuse.

Consequences of Malnutrition

The consequences of malnutrition include:

- Impaired immune responses
- Reduced muscle strength and fatigue
- Reduced respiratory muscle function
- Impaired thermoregulation
- Impaired wound healing and delayed recovery from illness
- Apathy, depression and self neglect
- Increased risk of admission to hospital and length of stay
- Poor libido, fertility, pregnancy outcome and mother and child interactions.

SECTION 1 INTRODUCTION & BACKGROUND

The Cost of Malnutrition

Malnutrition is a major clinical and public health problem. In 2007 the estimated cost of malnutrition in the UK was in excess of £13 billion per annum (BAPEN 2009).

In the NHS, disease related malnutrition puts significant pressure on healthcare resources including:

- Home Health Care: Patients who are discharged from hospital malnourished are more likely to need healthcare at home.
- GP services: Underweight patients visit their GP more frequently and require more prescriptions than those with a desirable weight.
- Malnourished elderly are more likely to be admitted to hospital and admitted to nursing homes than normally nourished patients
- Malnutrition increases the length of hospital stay.

Nutritional Screening

This is the first step in identifying people who may be at nutritional risk or potentially at risk. It is a rapid, simple and general procedure that can be used by nursing, medical or other staff after training, to detect those who are at significant or potentially at risk of nutritional problems. This allows clear actions and guidelines to be implemented to reduce the risk or treat those who are malnourished.

Screening for nutritional risk using a validated tool is recommended by the:

- Department of Health
- National Institute for Health and Clinical Excellence (NICE)
- National Patient Safety Agency (NPSA)

The Malnutrition Universal Screening Tool 'MUST'

The Malnutrition Universal Screening Tool 'MUST' is a simple validated screening tool to identify adults who are malnourished, at risk of malnutrition (undernutrition) or obese.

The tool has been developed by the Malnutrition Advisory Group of BAPEN (The British Association for Parenteral and Enteral Nutrition).

It is called the Malnutrition Universal Screening Tool 'MUST' to indicate it can be applied to all types of adult patients in all care settings including hospital wards, outpatient clinics, general practice, the community and care homes to facilitate continuity of care.

The local management guidelines are an important part of tool and should be used to form part of your care plan.

The 5 'MUST' steps

Step 1

Measure height and weight to get a BMI score using the chart provided. *If unable to obtain height and weight, use the alternative procedures shown in this guide.*

Step 2

Note percentage unplanned weight loss and score using tables provided.

Step 3

Establish acute disease effect and score.

Step 4

Add scores from steps 1, 2 and 3 together to obtain overall risk of malnutrition.

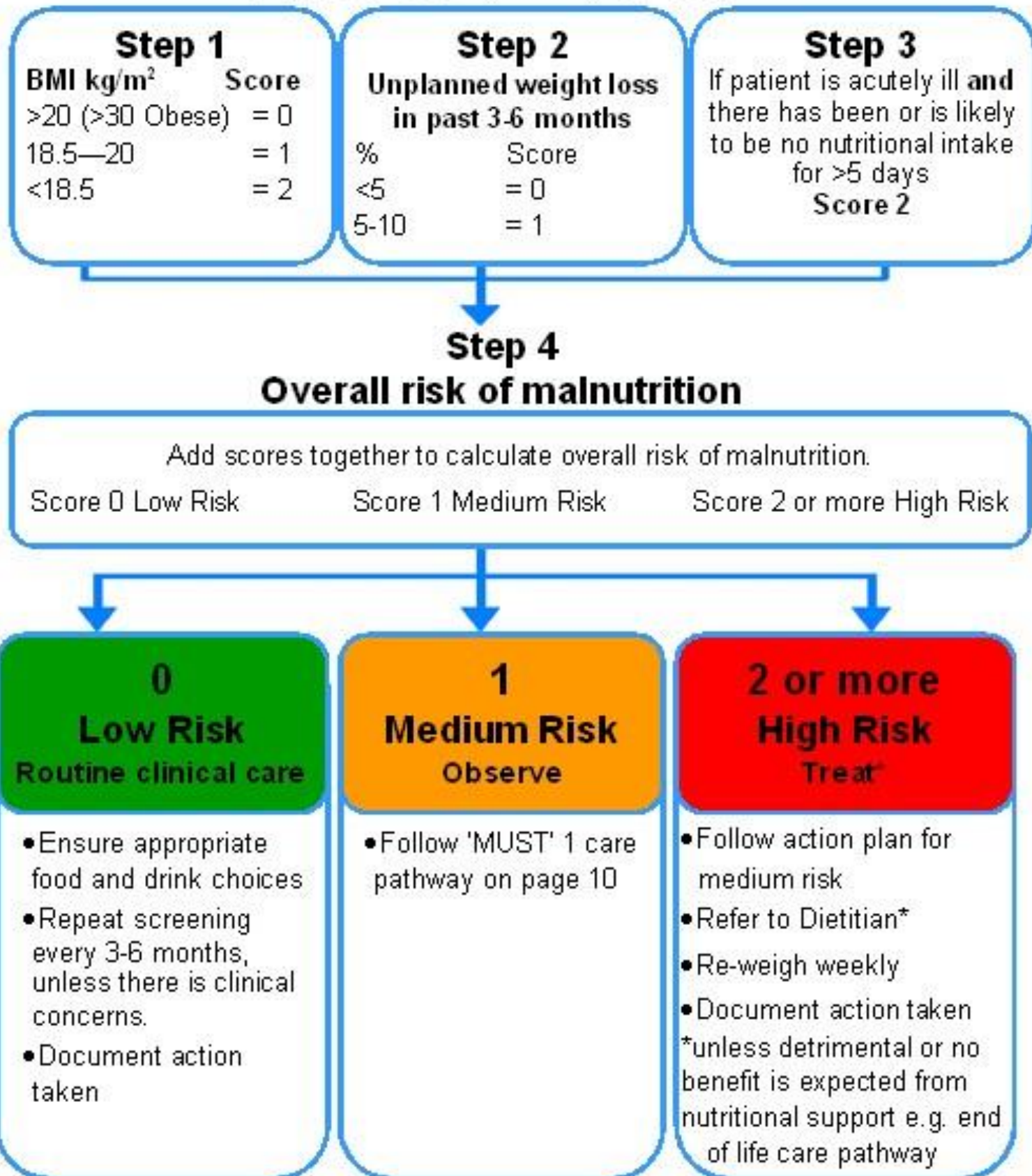
Step 5

Use management guidelines and/or local policy to develop care plan.

The 'Malnutrition Universal Screening Tool' ('MUST') is reproduced here with the kind permission of BAPEN (British Association for Parenteral and Enteral Nutrition)

For further information on 'MUST' see www.bapen.org.uk

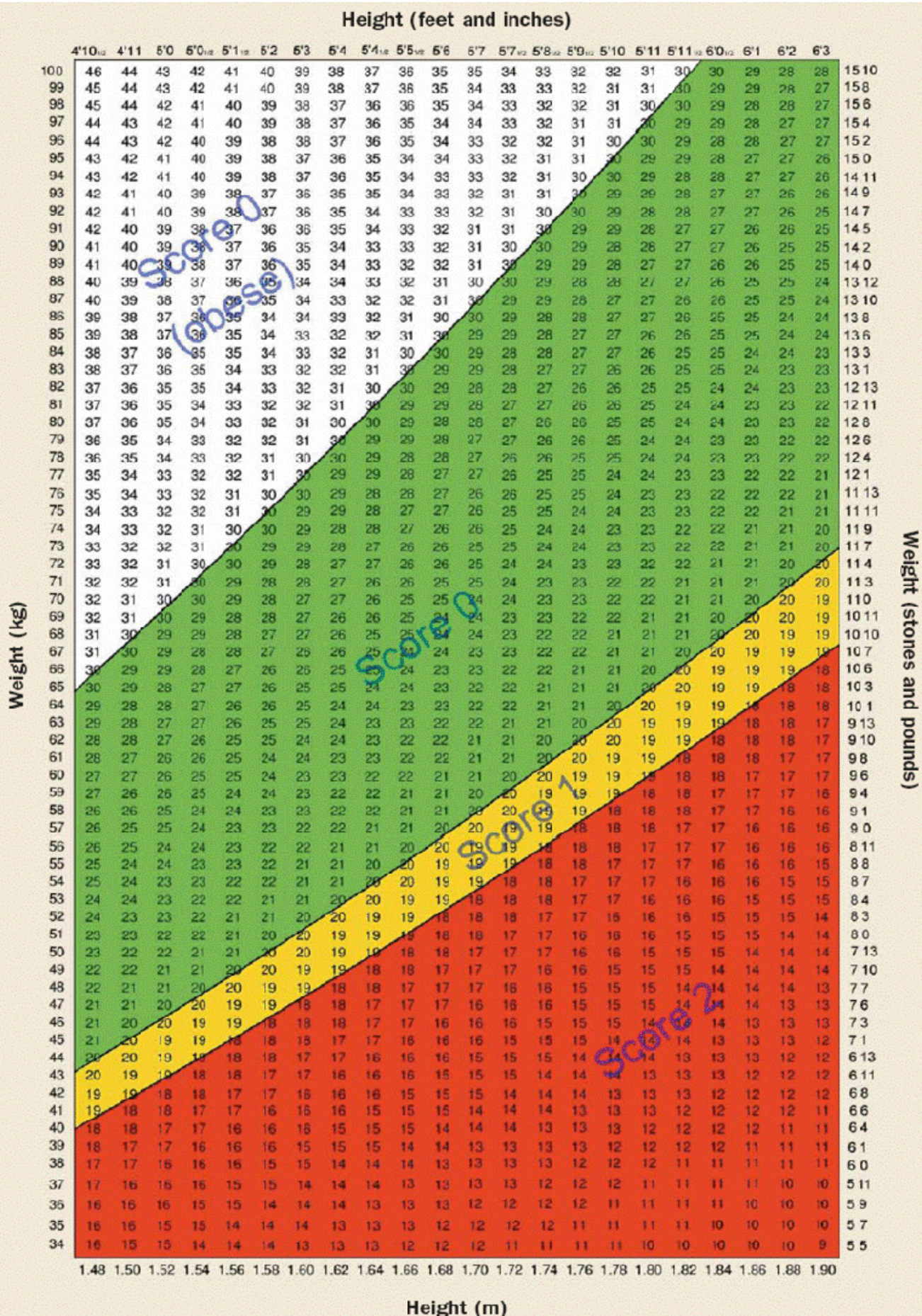
'MUST' Tool



This tool is to assist your assessment. If in doubt, use your professional judgement

SECTION 2 Community Nutritional Screening Tool

2.1: Step 1 – BMI score



2.2: Step 2 – Weight loss score

	SCORE 0 Wt Loss < 5%	SCORE 1 Wt Loss 5-10%	SCORE 2 Wt Loss > 10%
34 kg	<1.70	1.70 – 3.40	>3.40
36 kg	<1.80	1.80 – 3.60	>3.60
38 kg	<1.90	1.90 – 3.80	>3.80
40 kg	<2.00	2.00 – 4.00	>4.00
42 kg	<2.10	2.10 – 4.20	>4.20
44 kg	<2.20	2.20 – 4.40	>4.40
46 kg	<2.30	2.30 – 4.60	>4.60
48 kg	<2.40	2.40 – 4.80	>4.80
50 kg	<2.50	2.50 – 5.00	>5.00
52 kg	<2.60	2.60 – 5.20	>5.20
54 kg	<2.70	2.70 – 5.40	>5.40
56 kg	<2.80	2.80 – 5.60	>5.60
58 kg	<2.90	2.90 – 5.80	>5.80
60 kg	<3.00	3.00 – 6.00	>6.00
62 kg	<3.10	3.10 – 6.20	>6.20
64 kg	<3.20	3.20 – 6.40	>6.40
66 kg	<3.30	3.30 – 6.60	>6.60
68 kg	<3.40	3.40 – 6.80	>6.80
70 kg	<3.50	3.50 – 7.00	>7.00
72 kg	<3.60	3.60 – 7.20	>7.20
74 kg	<3.70	3.70 – 7.40	>7.40
76 kg	<3.80	3.80 – 7.60	>7.60
78 kg	<3.90	3.90 – 7.80	>7.80
80 kg	<4.00	4.00 – 8.00	>8.00
82 kg	<4.10	4.10 – 8.20	>8.20
84 kg	<4.20	4.20 – 8.40	>8.40
86 kg	<4.30	4.30 – 8.60	>8.60
88 kg	<4.40	4.40 – 8.80	>8.80
90 kg	<4.50	4.50 – 9.00	>9.00
92 kg	<4.60	4.60 – 9.20	>9.20
94 kg	<4.70	4.70 – 9.40	>9.40
96 kg	<4.80	4.80 – 9.60	>9.60
98 kg	<4.90	4.90 – 9.80	>9.80
100 kg	<5.00	5.00 – 10.00	>10.00
102 kg	<5.10	5.10 – 10.20	>10.20
104 kg	<5.20	5.20 – 10.40	>10.40
106 kg	<5.30	5.30 – 10.60	>10.60
108 kg	<5.40	5.40 – 10.80	>10.80
110 kg	<5.50	5.50 – 11.00	>11.00
112 kg	<5.60	5.60 – 11.20	>11.20
114 kg	<5.70	5.70 – 11.40	>11.40
116 kg	<5.80	5.80 – 11.60	>11.60
118 kg	<5.90	5.90 – 11.80	>11.80
120 kg	<6.00	6.00 – 12.00	>12.00
122 kg	<6.10	6.10 – 12.20	>12.20
124 kg	<6.20	6.20 – 12.40	>12.40
126 kg	<6.30	6.30 – 12.60	>12.60

Weight before weight loss (kg)

	SCORE 0 Wt Loss < 5%	SCORE 1 Wt Loss 5-10%	SCORE 2 Wt Loss > 10%
5st 4lb	<4lb	4lb – 7lb	>7lb
5st 7lb	<4lb	4lb – 8lb	>8lb
5st 11lb	<4lb	4lb – 8lb	>8lb
6st	<4lb	4lb – 8lb	>8lb
6st 4lb	<4lb	4lb – 9lb	>9lb
6st 7lb	<5lb	5lb – 9lb	>9lb
6st 11lb	<5lb	5lb – 10lb	>10lb
7st	<5lb	5lb – 10lb	>10lb
7st 4lb	<5lb	5lb – 10lb	>10lb
7st 7lb	<5lb	5lb – 11lb	>11lb
7st 11lb	<5lb	5lb – 11lb	>11lb
8st	<6lb	6lb – 11lb	>11lb
8st 4lb	<6lb	6lb – 12lb	>12lb
8st 7lb	<6lb	6lb – 12lb	>12lb
8st 11lb	<6lb	6lb – 12lb	>12lb
9st	<6lb	6lb – 13lb	>13lb
9st 4lb	<7lb	7lb – 13lb	>13lb
9st 7lb	<7lb	7lb – 13lb	>13lb
9st 11lb	<7lb	7lb – 1st 0lb	>1st 0lb
10st	<7lb	7lb – 1st 0lb	>1st 0lb
10st 4lb	<7lb	7lb – 1st 0lb	>1st 0lb
10st 7lb	<7lb	7lb – 1st 1lb	>1st 1lb
10st 11lb	<8lb	8lb – 1st 1lb	>1st 1lb
11st	<8lb	8lb – 1st 1lb	>1st 1lb
11st 4lb	<8lb	8lb – 1st 2lb	>1st 2lb
11st 7lb	<8lb	8lb – 1st 2lb	>1st 2lb
11st 11lb	<8lb	8lb – 1st 3lb	>1st 3lb
12st	<8lb	8lb – 1st 3lb	>1st 3lb
12st 4lb	<9lb	9lb – 1st 3lb	>1st 3lb
12st 7lb	<9lb	9lb – 1st 4lb	>1st 4lb
12st 11lb	<9lb	9lb – 1st 4lb	>1st 4lb
13st	<9lb	9lb – 1st 4lb	>1st 4lb
13st 4lb	<9lb	9lb – 1st 5lb	>1st 5lb
13st 7lb	<9lb	9lb – 1st 5lb	>1st 5lb
13st 11lb	<10lb	10lb – 1st 5lb	>1st 5lb
14st	<10lb	10lb – 1st 6lb	>1st 6lb
14st 4lb	<10lb	10lb – 1st 6lb	>1st 6lb
14st 7lb	<10lb	10lb – 1st 6lb	>1st 6lb
14st 11lb	<10lb	10lb – 1st 7lb	>1st 7lb
15st	<11lb	11lb – 1st 7lb	>1st 7lb
15st 4lb	<11lb	11lb – 1st 7lb	>1st 7lb
15st 7lb	<11lb	11lb – 1st 8lb	>1st 8lb
15st 11lb	<11lb	11lb – 1st 8lb	>1st 8lb
16st	<11lb	11lb – 1st 8lb	>1st 8lb
16st 4lb	<11lb	11lb – 1st 9lb	>1st 9lb
16st 7lb	<12lb	12lb – 1st 9lb	>1st 9lb

Weight before weight loss (st lb)

SECTION 2 Community Nutritional Screening Tool

2.3: Alternative measurements: instructions and tables

If height cannot be obtained, use length of forearm (ulna) to calculate height using tables below. (See The 'MUST' Explanatory Booklet for details of other alternative measurements (knee height and demispan) that can also be used to estimate height).

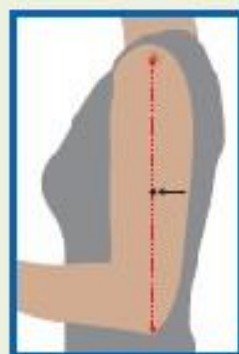
Estimating height from ulna length



Measure between the point of the elbow (olecranon process) and the midpoint of the prominent bone of the wrist (styloid process) (left side if possible).

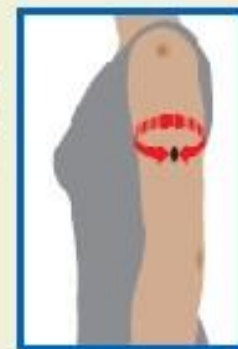
HEIGHT (m)	Men (<65 years)	1.94	1.93	1.91	1.89	1.87	1.85	1.84	1.82	1.80	1.78	1.76	1.75	1.73	1.71	
	Men (>65 years)	1.87	1.86	1.84	1.82	1.81	1.79	1.78	1.76	1.75	1.73	1.71	1.70	1.68	1.67	
Ulna length (cm)		32.0	31.5	31.0	30.5	30.0	29.5	29.0	28.5	28.0	27.5	27.0	26.5	26.0	25.5	
HEIGHT (m)	Women (<65 years)	1.84	1.83	1.81	1.80	1.79	1.77	1.76	1.75	1.73	1.72	1.70	1.69	1.68	1.66	
	Women (>65 years)	1.84	1.83	1.81	1.79	1.78	1.76	1.75	1.73	1.71	1.70	1.68	1.66	1.65	1.63	
Ulna length (cm)		25.0	24.5	24.0	23.5	23.0	22.5	22.0	21.5	21.0	20.5	20.0	19.5	19.0	18.5	
HEIGHT (m)	Men (<65 years)	1.69	1.67	1.66	1.64	1.62	1.60	1.58	1.57	1.56	1.54	1.52	1.51	1.49	1.48	1.46
	Men (>65 years)	1.65	1.63	1.62	1.60	1.59	1.57	1.56	1.54	1.52	1.51	1.49	1.48	1.46	1.45	
Ulna length (cm)		25.0	24.5	24.0	23.5	23.0	22.5	22.0	21.5	21.0	20.5	20.0	19.5	19.0	18.5	
HEIGHT (m)	Women (<65 years)	1.65	1.63	1.62	1.61	1.59	1.58	1.56	1.55	1.54	1.52	1.51	1.50	1.48	1.47	
	Women (>65 years)	1.61	1.60	1.58	1.56	1.55	1.53	1.52	1.50	1.48	1.47	1.45	1.44	1.42	1.40	

Estimating BMI category from mid upper arm circumference (MUAC)



The subject's left arm should be bent at the elbow at a 90 degree angle, with the upper arm held parallel to the side of the body. Measure the distance between the bony protrusion on the shoulder (acromion) and the point of the elbow (olecranon process). Mark the mid-point.

Ask the subject to let arm hang loose and measure around the upper arm at the mid-point, making sure that the tape measure is snug but not tight.



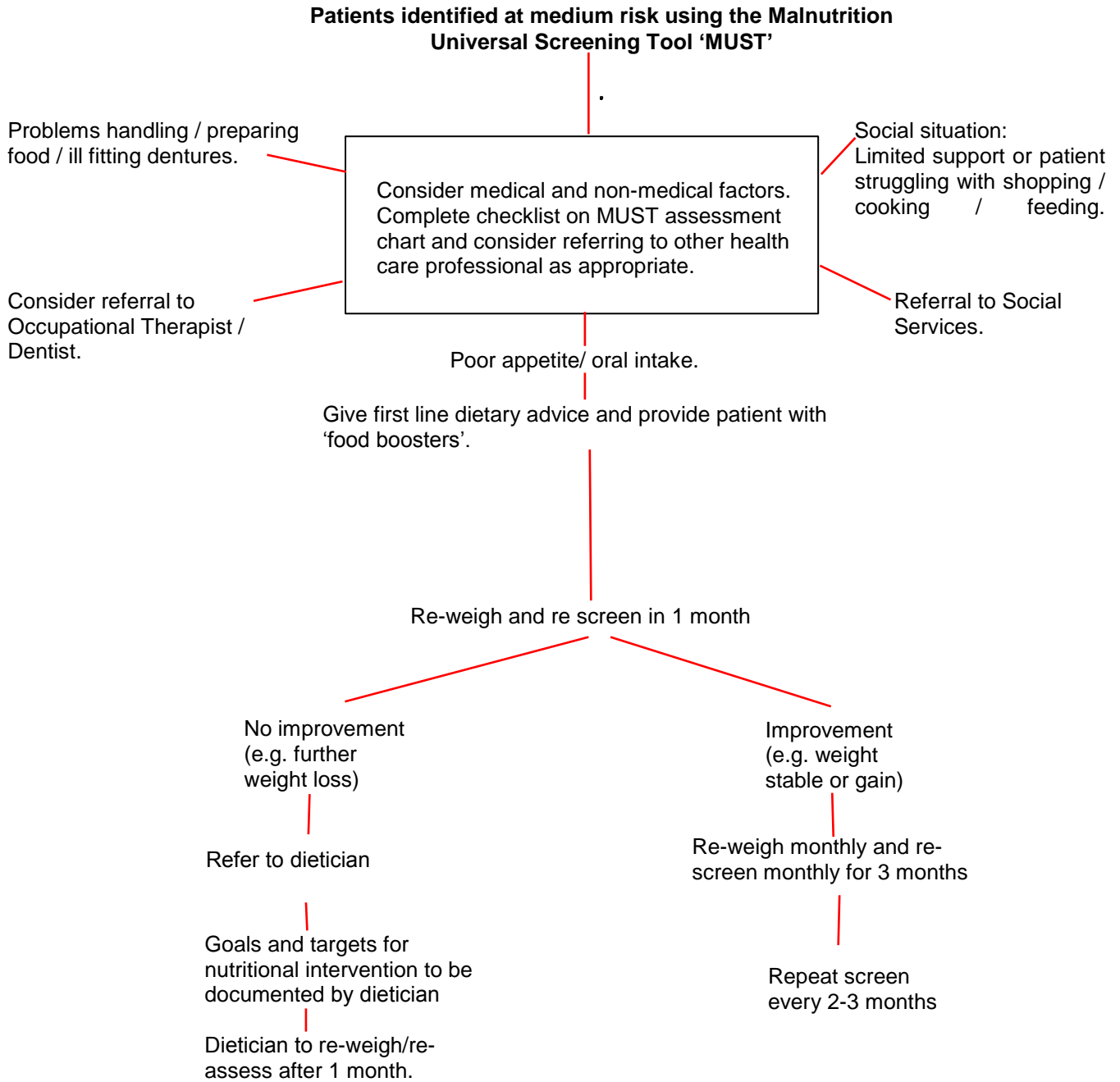
If MUAC is < 23.5 cm, BMI is likely to be <20 kg/m².

If MUAC is > 32.0 cm, BMI is likely to be >30 kg/m².

The use of MUAC provides a general indication of BMI and is not designed to generate an actual score for use with 'MJST'. For further information on use of MUAC please refer to *The 'MUST' Explanatory Booklet*.

SECTION 2 Community Nutritional Screening Tool

2.4: 'MUST' score 1 Care Pathway



SECTION 3 First Line Dietary Advice

Patients who are at a medium or high risk of malnutrition should be provided with dietary advice to encourage the use of energy and protein rich foods as the initial intervention before considering prescribing sip feeds.

During periods of acute or chronic illness, anorexia (loss of appetite) can be expected which can be a cause for concern for the patient and carer. In these cases providing simple dietary advice with emphasis on the following points should be sufficient until the patient recovers.

The information below should help to supplement the patient's intake with 400-600 calories (kcal) per day. In addition, provide the patient or carer with the 'Food Boosters' leaflet (Appendix One) to reinforce the following points.

- Encourage patients to have 3 small meals daily as well as 2-3 snacks or milky drinks between meals and before bed.
- Encourage patients or carers not to serve large portion sizes. Serve a meal on a smaller plate as not to over-face the patient.
- Advise the patient to avoid drinking liquids just before a meal as this can lead to early satiety.
- Encourage the use of full fat products e.g. full cream milk, thick and creamy yoghurts, full fat cheese
- Advise the consumption of more milk based drinks such as milky coffee, malted milk, hot chocolate or cocoa and milk shakes
- Each meal or snack should be as nourishing as possible by enriching/fortifying foods for example:
 - Add extra butter/margarine to potatoes, vegetables and sauces.
 - Add cream to sauces, milky puddings, cereals and soup.
 - Add cheese to soups, potatoes and vegetables
 - Add sugar, honey, syrup and jam to cereals and puddings
 - Fortify 1 pint of full cream milk with 2-4 tablespoons of skimmed milk powder
- Advise patients to avoid low fat and low sugar varieties and to encourage the use of full fat and full sugar versions to provide extra calories. For patients with diabetes see section 6.
- If meal preparation is a problem then suggest the use of ready made convenience foods.

SECTION 3 **First Line Dietary Advice**

3.1 Additional points to consider when providing dietary advice

- Meal times can often become a stressful time between patients and carers due to concerns over poor dietary intake. Many carers may take time to prepare favourite dishes that are often wasted. These issues should be discussed with all concerned and reassurance given that during the short term, small nourishing meals and snacks are more acceptable with some gentle encouragement.
- Careful counselling may also be required for patients who had previously avoided full fat products due to conditions such as high cholesterol and those with diabetes. Reassurance may be required regarding that the use of these products in the short term will not be detrimental to their health.
- The social aspect of mealtimes should be encouraged or maintained as people generally eat better in company. If social isolation is a problem lunch clubs or day care could be considered.
- If cooking smells are reducing the patient's appetite, then try to keep the patient away from them by asking family, friends or carers do the cooking.
- If possible encourage the patient to have a short walk or get some fresh air before mealtimes as this can stimulate appetite and a general feeling of well-being.

SECTION 3 First Line Dietary Advice

3.2 Example of a Fortified Diet

	Ordinary Diet			Food Boosters (high calorie, high protein)		
	Food Eaten	kcal	Protein	Food eaten	kcal	Protein
Breakfast	Porridge made with milk and water	135	5	Porridge made with full cream milk, 1 tbsp cream	330	8
Mid-morning	Coffee	15	1	Glass of full cream milk	135	6.5
Lunch (Dinner)	Vegetable Soup & bread roll	220	7	Cream of chicken Soup, bread roll with butter	335	8
Mid-afternoon	Tea	15	1	Tea and 1x biscuit	85	2
Dinner (Tea)	Poached fish, 1 scoop mashed potato, peas, tinned peaches	270	31	Poached fish, mash with butter and buttered vegetables, tinned peaches with 1 tbsp cream	547	31
Evening (Supper)	Coffee/tea	15	1	Malted milk made with fortified milk	290	15.5
Total		670	46	The fortified diet has extra calories to the equivalent of approx. 3 standard sip feeds	1772	71

4 Considerations in Diabetes

There will be times when patients with metabolic diseases such as diabetes are at risk from malnutrition. The sip feed guidelines will need modification to ensure that patients with diabetes receive advice about improving their nutritional intake without putting their metabolic control at risk.

Optimal glucose control may not be appropriate depending upon the diagnosis and prognosis. However, persistent hyperglycaemia can cause unpleasant symptoms such as polyuria, increased thirst, a dry mouth, tiredness, and further weight loss. Persistent hyperglycaemia may also result in dehydration, reduced wound healing and impaired immune function.

Patients with diabetes who have persistent glycosuria will be unable to benefit from the nutrition they are consuming as it will be lost in the urine. A poor nutritional intake because of other causes compounds the risk from malnutrition. Therefore, review of diabetes control and medication will probably be required at this stage and regularly throughout the process as poor control can lead to weight loss.

General guidelines based on the 'Balance of Good Health' i.e. low fat, low sugar and high fibre and usual recommendations for people with diabetes are not appropriate when patients undergo periods of prolonged illness associated with malnutrition. Medication may need adjusting for increased carbohydrate calories.

The issues highlighted overleaf explain how the guidance in the screening tool should be modified for diabetes in general terms. All leaflets in the pack can still be used.

It is essential that it is clearly explained to the patient why they are allowed increased fat, moderate sugar foods in the short term.

Once malnutrition has resolved the patient should return to their usual recommended intake.

If you are unsure of advice to give, please contact your local Dietetic Department for support.



4 Considerations in Diabetes

4.1 First Line Dietary Advice

- Please refer to section 3 page 11 and use the 'Food Boosters' leaflet – appendix one.

4.2 Additional considerations

- Patients may be under pressure from family and carers to conform to the initial dietary advice given for diabetes. It is essential for everyone involved to have a clear understanding of the goals and targets of dietary intervention and why foods currently being recommended are now appropriate.
- Diabetic review is recommended for patients due to the increased carbohydrate intake as medication and/or insulin may require altering due to increased blood glucose levels.
- Moderate amounts of sugar in yoghurts, puddings, biscuits and cakes etc are acceptable. Patients should be recommended to buy normal rather than low fat or low sugar brands.
- Avoid sources of concentrated sugar e.g. standard sugar containing fizzy drinks, squashes etc (unless treating hypoglycaemia). Also to avoid excessive amounts of chocolate and sweets or the addition of sugar to drinks. Milkshakes benefit from being introduced gradually.

4.3 Prescribing Sip Feeds to People with Diabetes

- Extra monitoring is recommended as medication and/or insulin may need adapting.
- Milk based sip feeds are recommended in preference to juice based as they will be absorbed more slowly and therefore result in better diabetic control.
- Juice based sip feeds should only be prescribed when a selection of milk based sip feeds have been tried. Increased monitoring is required due to the increased carbohydrate load of these sip feeds.
- Spacing sip feeds throughout the day may help control e.g. half a carton four times a day.



5 Considerations in Palliative care

In the initial stages of palliative care patients should be managed using the screening tool, with particular emphasis on small frequent meals and snacks, use of "normal" high calorie foods as outlined in the Food Boosters provided within the Resource Pack. Avoid prescribing sip feeds purely in response to feeling a need to do something, or as a last resort when all other treatments have failed.

As the patient approaches the later stages of their disease the goal of nutrition support changes from preventing weight loss to ensuring mealtimes are as comfortable and enjoyable as possible. Weighing is no longer appropriate. The actual nutritional intake at meal times is not of prime importance. Use of the Macmillan Durham Cachexia Support Pack may be beneficial for staff. (It can be found on www.macmillan.org)

Acknowledgements

Thanks are due to the East Lancashire Feeds Guidelines Work Group for production of the original 'Food First' document in 2001:

The updated 'Food First' document has been produced by the Department of Nutrition and Dietetics for NHS East Lancashire together with support from NHS East Lancashire Medicines Management, Blackburn with Darwen PCT Medicines Management and the Department of Nutrition and Dietetics of East Lancashire Hospitals Trust.

Thanks are also due to BAPEN for their production of the 'MUST' screening tool and support in granting copyright to adapt the tool for use in East Lancashire.



References and Further Reading

Anon. Palliative Care Prescribing. Drug Information Letter, 1996; 110.

BAPEN 'Combating Malnutrition: Recommendations for Action' Output of a meeting of the Advisory Group on Malnutrition 12th June 2009

BNF 39 (March 2000).

Dickerson JWT (1978) The Inter-Relationships of Nutrition and Drugs. Nutrition in the Clinical Management of Disease, edited by Dickerson JWT and Lee HA (London: Edward Arnold), 308-31.

East Lancs Feeds Guidelines Group, July 2000, unpublished data.

Elia M and Smith R. (2009) A report from BAPEN, Improving Nutritional Care and Treatment: Perspectives and Recommendations from Population Groups, Patients and Carers

Gall M (1999), Can Guidelines supported by education improve appropriateness of prescribing nutritional supplements in primary care? BAPEN Abstracts 1999.

Health Education Authority (1996) Balance of Good Health.

Malnutrition Advisory Group (2000) Guidelines for Detection and Management of Malnutrition ISBN 1 899 467 459.

Malnutrition Advisory Group (2003) The 'MUST' report: Nutritional screening of adults: a multidisciplinary responsibility ISBN 1 899467 70 x

McCombie L (1999) Journal of Human Nutrition and Dietetics 12, 3, 201-212.

Mersey Palliative Care Audit Group, May 2000.

Merseyside & Cheshire Drug Information Letter, 1994: 101, Sugar-free medicines.

NICE (2006) Nutrition Support in Adults, Clinical Guideline 32

Nutrition Sub-Committee of the Professional Advisory Committee British Diabetic Association. Dietary Recommendations for People with Diabetes: An Update for the 1990s. London. British Diabetic Association. 1992.

Personal communication. Scott J, Manager of Speech and Language Services, Burnley HealthCare Trust.

Recommendations for nutritional management of patients with diabetes mellitus. The Diabetes and Nutrition Study Group (DNSG) of the European Association for the Study of Diabetes. European Journal of Clinical Nutrition (2000) 54 353-355.

Stratton RJ and Elia M (1999). A critical systematic analysis of the use of oral nutritional supplements in the community. Clinical Nutrition 18 (Supplement 2), 29-84.

www.bapen.org

www.macmillan.org