Management of Malnutrition in Primary care

individuals in their own homes

This document is designed for use by GPs, Nursing or other AHPs in Primary Care to highlight best practice pathway for patients who are at risk of Malnutrition. The most nutritionally vulnerable include those with chronic disease, the elderly, those recently discharged from hospital, poor and socially isolated. A recent survey suggests that 11% of people living in Care Homes are at risk of Malnutrition.[1] Malnutrition is associated with higher risks of falls, poor wound healing, more likely to be admitted to hospital and have longer hospital stays.[2]

Malnutrition is defined as:

- BMI: under 18.5kg/m^2
- BMI under 20kg/m^2 with weight loss 5-10% in the last 3-6 months
- 10% weight loss in the last 3-6 months

The Malnutrition Universal Screen Tool (MUST) is a validated tool designed to identify adults who are underweight and at risk of malnutrition, as well as those who are obese.[3]

1. CALCULATE MUST SCORE

Calculating a MUST score is the most accurate way to identify risk.
It requires the following information: height, weight and a weight from 3-6 months ago (or reported, recent weight loss)
Use the following link to calculate: 'MUST' Calculator | BAPEN
If this is not possible/practical, then the following subjective measures can be used, see appendix 1

Low Risk MUST = 0	**Medium Risk** MUST = 1	**High Risk** MUST = 2+
Subjectively, Not thin, weight stable or increasing No weight loss or reduction in appetite	***Subjectively*****,** Slim, possibly due to disease/ condition Decreased food intake/appetite Unplanned weight loss over the last 3 - 6 months	***Subjectively*****,** Thin or very thin Significant unplanned weight loss in the last 3-6 months

2. ADDRESS BARRIERS TO ORAL INTAKE

nausea/vomiting, pain, infection, constipation/diarrhoea, ability to chew/swallow, medical prognosis /impact of medication. This list is not exhaustive.

3. FOOD FIRST CARE PLAN

Patients should always start with 'food first' as the most cost-effective choice and best for quality of life.

Low Risk	Medium Risk	High Risk
1.*No concern,* Healthy eating advice. *Patient information* patientleaflet_lowrisk.pdf (malnutritionpathway.co.uk) patientleaflet_lowrisk_welsh.pdf (malnutritionpathway.co.uk) 2. *If patient/practitioner has concerns about weight or weight loss* Use Medium/High risk Care Plan.	1. Regular high sugar/high fat snacks 2. Milky drinks, aim for 1 pint of full fat milk every day 3. Add butter, cheese, cream to meals 4. Have puddings every day 5. Try Over the Counter supplements such as Complan©, Meretine© 6. If able to stand safely, monthly weights. *Patient information: see below* patientleaflet_medium/high risk (malnutritionpathway.co.uk) patientleaflet_medium/highrisk_welsh.pdf (malnutritionpathway.co.uk) **If End of Life,** see End of Life guidance	

4. REVIEW

Repeat MUST annually unless nutritional concern changes	*1 month*		*1 month*	
	Improvement / weight gain	Deterioration / weight loss	Improvement / weight gain	Deterioration / weight loss
	1. Continue medium/high risk Food First Care Plan. *2. Patient to come back to GP if they begin to lose weight again.*	***If MUST 1,*** *Continue Medium/High risk Food First Care Plan* ***If MUST 2,*** *Refer – move to step 5*	*1. Continue medium/high risk Food First Care Plan* *2. Patient to come back to GP if they begin to lose weight again*	*Refer – move to Step 5*

5. REFER

1. Refer to Nutrition and Dietetics

Please use your usual referral form and email powys.dietetics@wales.nhs.uk if you would like advice regarding the suitability of a referral, or call 01686 617273 (office hours only).
Please send referrals via:
E-referral to the Therapies Hub: 01686 617238
Email referral to Therapies.Hub.POW@wales.nhs.uk
The Welsh Clinical Communications Gateway / Welsh Admin Portal (WAP)

2. Start with twice daily, starter pack of a powder-based oral nutritional supplement:

(Milkshake style) Aymes Shake
1x 57g sachet to mix with 200ml full fat milk, in flavour Strawberry, Chocolate, Banana or Vanilla
OR
(Juice style) Actasolve Smoothie
1x 66g sachet mixed with 150ml water in flavour Peach, Mango, Pineapple, Strawberry and Cranberry

- Check compliance with ACBS criteria
- Do not prescribe ONS if patient has dysphagia. See Dysphagia guidance
- If patient is End of Life. See End of Life guidance

3. Continue High risk Food first Care Plan (Step 3)

General appropriate prescribing guidance on the use of oral nutritional supplements (ONS)

ONS in patients receiving end of Life Care

Patients in the final weeks of life are unlikely to benefit from an ONS prescription. Purchased OTC supplements such as Aymes© Retail, Complan©, Meritene© or Nurishment© may be a better option due to palatability. It is important to recognise that a normal part of the dying process is a reduction in appetite, thirst and the ability to tolerate food and fluid in the last few weeks of life. Reassurance should be given to families to focus on food/fluids for comfort and enjoyment.

Dysphagia

Patients with swallowing problems should be referred to Speech and Language services for assessment before ONS can be safely prescribed and before dietetic input.

If a patient is known to Speech and Language or has already been given guidance regarding appropriate texture recommendations, contact the Dietitians for advice on appropriate oral nutritional supplements.

Substance users

Care should be taken when prescribing supplements for substance users as once started, ONS can be difficult to stop. Supplements are often used to replace meals and therefore can be of negligible clinical benefit.

Appendix 1

Alternative measurements: instructions and tables

BAPEN
www.bapen.org.uk

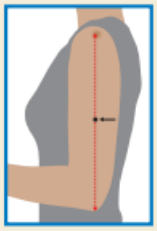
If height cannot be obtained, use length of forearm (ulna) to calculate height using tables below.
(See The 'MUST' Explanatory Booklet for details of other alternative measurements (knee height and demispan) that can also be used to estimate height).

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).

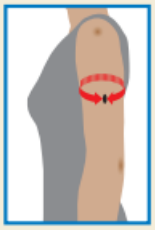
Height (m)	men (<65 years)	1.94	1.93	1.91	1.89	1.87	1.85	1.84	1.82	1.80	1.78	1.76	1.75	1.73	1.71
	men (≥65 years)	1.87	1.86	1.84	1.82	1.81	1.79	1.78	1.76	1.75	1.73	1.71	1.70	1.68	1.67
	Ulna length (cm)	32.0	31.5	31.0	30.5	30.0	29.5	29.0	28.5	28.0	27.5	27.0	26.5	26.0	25.5
Height (m)	Women (<65 years)	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
Height (m)	men (<65 years)	1.69	1.67	1.66	1.64	1.62	1.60	1.58	1.57	1.55	1.53	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 'MUST'. For further information on use of MUAC please refer to *The 'MUST' Explanatory Booklet.*

References

1. McGurk P *et al*. 2012. The Burden of Malnutrition in General Practice. Gut. 61 (Suppl 2): A18 (OC-042)
2. Elia M, Screening for malnutrition: a multidisciplinary responsibility. Development and use of the 'Malnutrition Universal Screening Tool' ('MUST') for adults. 2003. MAG, a Standing Committee of BAPEN.
3. Elia M and Russell CA. 2009. Combating Malnutrition: Recommendations for Action. Report from the Advisory Group on Malnutrition, led by BAPEN.