The Royal Wolverhampton NHS Trust

CP17
Identification and Management of Patients at Risk of Under Nutrition

Contents

1.0 Policy Statement

The purpose of this policy is to set standards for the identification and subsequent management of patients risk of under-nutrition. This policy is applicable to adult and paediatric inpatients and adults receiving district nursing interventions in the community. This policy is not applicable in pregnancy and in the last few days of life. It is also not applicable to neonates.

2.0 Definitions

Nutrition screening	The process of identifying patients at risk of under-nutrition. Can be undertaken by a registered health care professional with appropriate training.
Nutrition assessment	More detailed assessment on the extent of under (or over) nutrition on those identified as having a potential problem with one or more nutrients. Conducted by registered health professionals with additional training and experience in the subject (e.g. Dietitians).
Nutrition management	The process of nutrition screening, assessment, care planning, implementation and evaluation.
Care plan	The interventions taken to prevent malnutrition or improve nutritional status.
Sip feeds or ONS(oral nutrition supplements)	Nutritional supplements, taken orally, either liquid or semi-solid, containing a balance of nutrients required for health.
Supplements	Nutritional supplements which may comprise single nutrients (e.g. vitamin C or ferrous sulphate), a type of nutrients (e.g. multi-vitamin supplements) or a balance (e.g. sip feeds, as mentioned above).
Artificial nutrition support	Nutrition delivered through a tube directly into the gastro-intestinal tract (enteral nutrition) or vein (parenteral nutrition).
Low risk areas	Areas where patients stay less than 24 hours and District Nurse clinic patients.
Palliative Care	An approach that improves the quality of life of patients facing problems associated with life-threatening illness through the prevention and relief of suffering, treatment of physical,

	psychosocial and spiritual means. It is important to identify and address those nutritional factors that may impair a patients physical and psychological wellbeing, maintaining or improving quality of life wherever possible.
End of Life Care	For the purpose of this policy this applies to patients whose life expectancy is measured in days. Screening and actions aimed at improving nutritional status are therefore not appropriate.
NSSG	Nutrition Support Steering Group – this is a multi-professional group with the remit to establish and promote best practice in nutrition support for all patients under the care of the Trust and who are at risk from or who have developed under nutrition
BAPEN	British Association for Parenteral & Enteral Nutrition. This is a multi-professional expert group comprising medical, nursing, dietetic, pharmacy and patient representatives.
QSAG	Quality & Safety Advisory Group
NICE	National Institute for Health & Care Excellence
PLACE Environment	Patient-Led Assessments of the Care

3.0 Accountabilities

The NSSG is responsible for the content of the policy, having oversight of practice & compliance and reporting to QSAG.

Ward managers, locality & department managers are responsible for ensuring that staff are aware of this policy, staff have appropriate training. Ward managers are responsible to regular checking of compliance with this policy (eg timely screening, care planning & referrals)

Individual registered staff have a responsibility to maintain their own clinical competence and knowledge for compliance with this policy.

Dietitians are responsible for supporting the development of education and training.

4.0 Policy Detail

This policy directs local implementation of nutrition screening, as recommended by Essence of Care - Food and Drink benchmarks (2011), Nutrition Support in Adults

(NICE, 2006 updated 2017), Health & Social Care Act (2008) Regulation 14 (Meeting Nutritional Needs), BAPEN (2003) – Malnutrition Universal Screening Tool, Quality Standard for Nutrition Support in Adults (QS24, NICE, 2012), Better Hospital Food Review (2020) & PLACE (NHS, 2013) Its objectives are:

- To provide clear instructions to registered healthcare professionals on how and when to undertake a nutrition risk screening assessment
- To provide guidance, to all health professionals involved with patient care, on the management of patients at risk of under-nutrition
- To provide minimum standards for the monitoring and review of patients covered by this policy (whether deemed to be at risk or not) This policy does not apply to maternity & neonatal and patients at the end stage of life. Additionally, low risk areas are exempt from routine screening.

5.0 Financial Risk Assessment

1	Does the implementation of this policy require any additional Capital resources	No
2	Does the implementation revenue resources of this policy require additional	No
3	Doe the implementation of this policy require additional manpower	No
4	Does the implementation of this policy release any manpower costs through a change in practice	No
5	Are there additional staff training costs associated with implementing this policy which cannot be delivered through current training programmes or allocated training times for staff	No
	Other comments	

6.0 Equality Impact Assessment

The initial screening of this policy has not identified any adverse or negative factors that require a full equality impact assessment.

7.0 Maintenance

The policy will be reviewed after three years by the Nutrition Support Steering Group on behalf of the Medical Director or earlier if there is a change in national recommendation or if deemed necessary by internal information.

8.0 Communication and Training

The policy is available through the intranet. Education is incorporated into the Induction Programme for registered nurses and top up training available on Trust intranet. It is a core element of induction for dieticians & dietetic support workers.

Changes in policy are fed through divisional/speciality representatives on the NSSG.

9.0 Audit Process

Criterion	Lead	Monitoring method	Frequency	Committee
All patients must have a nutrition screen completed (with exclusions) on admission	Ward Managers	Case note Audit	Monthly	Nutrition Support Steering Group Senior nurses groups
All high risk patients will have a care plan in place	Ward Managers	Case note Audit	Monthly	Nutrition Support Steering Group Senior nurses groups
All patients will be re-screened weekly during their admission	Ward managers	Case note audit	Monthly	Nutrition Support Steering Group Senior nurses groups

10.0 References –

BAPEN (2003) The 'MUST' Report. *Nutrition screening of adults: a multi-disciplinary responsibility*. Malnutrition Advisory Group [MAG] a Standing Committee of BAPEN. Professor Marinos Elia; Chairman of MAG and Editor.

Department of Health & Social Care (2020) Independent Review of Hospital Food.

DOH (2011) Essence of Care – Patient focused benchmarks for clinical governance [Food and Drink].

Lennard-Jones JE (1992). *A positive approach to nutrition as treatment*. King's Fund Report.

NICE (2006, updated 2017) Clinical Guideline 32 Nutrition support in adults. National Institute for Health and Clinical Excellence.

NICE (2012) Quality Standard for Nutrition Support in Adults (QS24)

The Health and Social Care Act 2008 (Regulated Activities) Regulations 2010 – Regulation 14: Meeting Nutritional Needs

Document Control

To be completed when submitted to the appropriate committee for consideration/approval

Policy number and Policy version: 6.0 September 2022 CP17	**Policy Title** CP17 Identification and management of patients at risk of under nutrition	**Status:** Final		**Author:** Head of Nutrition & Dietetics **Chief Officer Sponsor:** Medical Director
Version / Amendment History	Version	Date	Author	Reason
	6.0	Sept. 2022	Head of Nutrition & Dietetics	Review
	5.4	May 2022	Head of Nutrition & Dietetics	Extension approved
	5.3	Feb. 2022	Head of Nutrition and Dietetics	Extension approved
	5.2	Sept. 2021	Head of Nutrition & Dietetics	Extension approved
	5.1	February 2021	Head of Nutrition & Dietetics	Extension approved
	5	April 2018	Head of Nutrition & Dietetics	Review & update
	4	Sept 2014	Head of Nutrition & Dietetics	Review & update
	3	June 2011		Review
	2	Aug 2008		Review
	1	Aug 2006		Intro
Intended Recipients: Healthcare professionals involved in direct patient care.				
Consultation Group / Role Titles and Date: Nutrition Support Steering Group Nov 2021				

Name and date of Trust level group where reviewed	Trust Policy Group – September 2022
Name and date of final approval committee	Trust Management Committee – October 2022
Date of Policy issue	November 2022
Review Date and Frequency (standard review frequency is 3 yearly unless otherwise indicated – see section 3.8.1 of Attachment 1)	September 2025 (3 years)
Training and Dissemination: Trust Intranet, Local Induction & Mandatory Specific Training	
Publishing Requirements: Can this document be published on the Trust's public page: **Yes** If yes you must ensure that you have read and have fully considered it meets the requirements outlined in sections 1.9, 3.7 and 3.9 of OP01, Governance of Trust-wide Strategy/Policy/Procedure/Guidelines and Local Procedure and Guidelines, as well as considering any redactions that will be required prior to publication.	
To be read in conjunction with: CP45 Management of enteral feeding tubes; OP94 Protected Mealtimes, re-feeding syndrome guidelines.	
Initial Equality Impact Assessment (all policies): Completed Yes **Impact assessment (as required):** **NA** If you require this document in an alternative format e.g., larger print please contact Policy Administrator 8904	
Monitoring arrangements and Committee	Nutrition Support Steering Group
Document summary/key issues covered Risk screening to identify under nutrition in adults and children, and subsequent guidance on management of nutritional risk.	
Key words for intranet searching purposes	Nutrition, MUST, nutritional risk, malnutrition, weight.
High Risk Policy? **Definition:** • Contains information in the public domain that may present additional risk to the public e.g. contains detailed images of means of strangulation. • References to individually identifiable cases. • References to commercially sensitive or confidential systems. If a policy is considered to be high risk it will be the responsibility of the author and chief officer sponsor to ensure it is redacted to the requestee.	**No**

Part B **Ratification Assurance Statement**

Name of document:

Name of author: Job Title:

I, the above named author confirm that:

- The Strategy/Policy/Procedure/Guidelines (please delete) presented for ratification meet all legislative, best practice and other guidance issued and known to me at the time of development of the said document.
- I am not aware of any omissions to the said document, and I will bring to the attention of the Executive Director any information which may affect the validity of the document presented as soon as this becomes known.
- The document meets the requirements as outlined in the document entitled Governance of Trust- wide Strategy/Policy/Procedure/Guidelines and Local Procedure and Guidelines(OP01).
- The document meets the requirements of the NHSLA Risk Management Standards to achieve as a minimum level 2 compliance, where applicable.
- I have undertaken appropriate and thorough consultation on this document and I have detailed the names of those individuals who responded as part of the consultation within the document. I have also fed back to responders to the consultation on the changes made to the document following consultation.
- I will send the document and signed ratification checklist to the Policy Administrator for publication at my earliest opportunity following ratification.
- I will keep this document under review and ensure that it is reviewed prior to the review date.

Signature of Author:

Date:

Name of Person Ratifying this document (Chief Officer or Nominee):
Job Title:
Signature:

- I, the named Chief Officer (or their nominee) am responsible for the overall good governance and management of this document including its timely review and updates and confirming a new author should the current post-holder/author change.

To the person approving this document:

Please ensure this page has been completed correctly, then print, sign and email this page only to: The Policy Administrator

IMPLEMENTATION PLAN

To be completed when submitted to the appropriate committee for consideration/approval

Policy number and policy version **CP17 v5.4**	**Policy Title** **Identification & management of patients at risk of undernutrition**	
Reviewing Group	Nutrition Support Steering Group	**Date reviewed: Nov 2022**
Implementation lead: Kathryn Robinson, Head of Nutrition & Dietetics **kathrynrobinson@nhs.net**		

Implementation Issue to be considered (add additional issues where necessary)	**Action Summary**	**Action lead / s (Timescale for completion)**
Strategy; **Consider** (if appropriate) 1. Development of a pocket guide of strategy aims for staff 2. Include responsibilities of staff in relation to strategy in pocket guide.		
Training; Consider 1. Mandatory training approval process 2. Completion of mandatory training form		
Development of Forms, leaflets etc; Consider 1. Any forms developed for use and retention within the clinical record **MUST** be approved by Health Records Group prior to roll out. 2. Type, quantity required, where they will be kept / accessed/stored when completed		
Strategy / Policy / Procedure communication; Consider 1. Key communication messages from the policy / procedure, who to and how?		
Financial cost implementation Consider Business case development		
Other specific Policy issues / actions as required e.g. Risks of failure to implement, gaps or barriers to implementation	Only minor changes – nurse induction and My Focus updated to reflect.	

CP17 Appendix 1: User Guidelines for the Management of adult patients at risk of Under-nutrition using MUST

A guide to nutrition screening and care planning

All adult patients (except those in low risk areas, maternity and end of life care) must be nutritionally screened, electronically (where available) within 24 hours of admission. An inpatient MUST screening chart is available as part of the business continuity process CP17 Appendix 3 Inpatient MUST Screening Chart, For community patients this should be done on their initial community assessment using the community MUST tool community nutrition screening toolCP17 Appendix 4 Community Nutrition Screening Tool

All steps of MUST screening are recorded electronically or on paper including outcome of the screen and careplan (if required) by a registered healthcare professional. The screen must be repeated in line with guidance in Appendices 3 (Inpatients) and Appendix 4(Community).

As a working document the nutrition screening chart must be kept with other nursing documentation and filed into the case notes on discharge in line with business continuity plans.

Low risk areas:

As per NICE guidelines some areas, can be exempt from screening. These include areas where patients are in hospital for less than 24 hours and community clinics.

However, any patient with a history suggesting a risk of undernutrition (chronic GI or chest disease, neurological disease, frail elderly or under investigation for a possible malignancy) or who look underweight, should undergo screening.

Using MUST

Step 1

Current weight is used to calculate **Body Mass Index** (BMI). This is a useful method of assessing an individual's risk from how thin they are. It is calculated as

$$\text{BMI (kg / m}^{2)} = \frac{\text{Weight (Kg)}}{\text{Height (m}^2\text{)}}$$

A ready reckoner BMI score on p6 of this guide enables a quick calculation of BMI to 0.5kg / m^2 which is sufficiently accurate. For patients outside of the scope of this chart, the above calculation can be used or the tool off the BAPEN website

BMI should be recalculated and recorded when the weight change is more than 1.5kg.

Step 2

Weight loss score indicates a potential change in nutritional status and whether an individual has been meeting their nutritional requirements over the previous 3 - 6 months. The extent of unintentional weight loss is calculated as a percentage of the patient's previous or "normal weight":

$$\frac{\text{Previous weight [kg] - current weight [kg]}}{\text{Previous weight [kg]}} \times 100 = \text{weight loss \%}$$

A percentage weight loss calculator (on p7). calculates to a percentage range. This is sufficiently accurate for the purposes of nutrition screening and the ranges are those used on the MUST tool.

Step 3 (score either 0 or 2)

Acute Disease Effect applies to patients who are acutely unwell and likely to have little or no nutrition for 5 days or more. This is a significant risk factor and itself warrants a score of 2. These patients may include those who are unconscious, obstructed bowel, dysphagia. This effect is unlikely to apply outside of a hospital inpatient setting.

Step 4

The overall risk of under-nutrition is calculated by adding together the scores from steps 1, 2 and 3.

Score	Risk	Aim	Action Plan
0	Low	To prevent development of nutritional problems	Repeat screening weekly for inpatients and annually for community patients.
1	Medium risk	To improve or maintain nutritional status	Inpatients: implement individualised care plan. Community patients: action relevant problems identified in care plan. repeat screening monthly.
2 - 6	High risk	To treat undernutrition	Inpatients: implement individualised care plan; refer to dietitian. Community patients: Trial of OTC powdered supplements for 2 months and repeat screening at least monthly. Refer to other HCPs as required.

Step 5 – Action Plan Guidelines

Inpatients: for medium and high risk patients (MUST score of 1-6) implement nutrition care plan located in Patient Risk Assessment Booklet

- Liaise with clinical team regarding management of symptoms that are reducing food intake.
- Optimise nutritional intake by providing for food preferences, snacks and milky drinks between meals. Encourage and assist with eating and drinking, monitor and evaluate intake.
- Those patients with suspected dysphagia should have their swallowing assessed, and appropriate modification of texture or consistency of food and fluids. hyperlink to CP68 Management of Dysphagia Policy

The Trust's approach to managing undernutrition is to use 'Food First' – optimising intake with energy dense meals, snacks & drinks. The dietitian may recommend oral nutritional supplements (ONS) for high-risk patients. All ONS should be offered between meals and in a way that is preferred by the individual patient (i.e. opened and if the patient is unable to use a straw or hold a carton, poured into a glass, chilled/room temperature).

The approximate amount *taken*, rather than that *given*, must be documented on the food record chart.

Additional steps for high risk patients:

- Discuss with clinical team and refer to dietitian for advice on management plan (ext 85335)
- If no improvement, consider artificial nutrition support following discussion with the dietitian and wider clinical team. CP45 Management of Enteral Feeding Tubes

Community patients: for those at medium and high risk (MUST score of 1-6):

- Optimise nutritional intake: see Community Nutrition Guidelines
- For high risk patients (eg those with significant co-morbidities such as COPD, liver disease, compromised skin integrity) alert GP and consider referral to dietitian

Trouble shooting guide:

How often should patients be weighed?

Weights on all adult in-patients eligible for screening must be recorded at least weekly. Daily weights are only appropriate for the assessment of fluid balance status.

What if the patient can't be weighed?

The majority of patients can be weighed on standing, chair, bed or hoist scales. However, there will be a very small minority of patients for whom this is not safe e.g, those with unstable fractures or spinal injuries.

If it is unsafe to weigh a patient, use a weight recently documented in their notes or use self-reported weight (if reliable and realistic) from them or a family member. If it is not safe to weigh a patient, the reason for this should be clearly recorded. It is essential to ask about recent weight loss, and observe for signs of loose fitting clothes, rings, wrist watches or dentures, which are all signs of weight loss.

For patients in the community requiring long-term health interventions and care who cannot be weighed, mid-upper arm circumference measurements repeated each fortnight can be a useful indicator of BMI. More information is available in CP17 Appendix 5 Alternative measurements.pdf

What about recording weights for patients with oedema, plaster casts or amputations?

Estimates will need to be made – the dietitian can provide guidance.

What about patients who cannot have their height measured

Measurement of weight and height is required for an accurate BMI calculation. If the patient is unable to stand to have their height measured, reported height or ulna length can be used CP17 Appendix 5 Alternative measurements.pdf

In the rare event that neither of these is available, a subjective assessment should be made of whether the patient has a BMI of more than 20kg/m2 (healthy weight or overweight), a BMI of 18.5-20kg/m2 (appears underweight) or a BMI of less than 18.5 kg/m2 (appears extremely underweight). Further guidance can be found at MUST Online Calculator - Malnutrition Universal Screening Tool (bapen.org.uk)

Palliative care

It is important to identify and address those nutritional factors that may impair a patients physical and psychological wellbeing, maintaining or improving quality of life wherever possible. Thus, patients should be screened as long as there is the potential for clinical and / or psychological benefit from nutrition support, regardless of whether they are receiving active treatment.

Patients at end of life stage

It is not appropriate to undertake an initial screen or conduct reassessments once patients enter the last few days of life. However, patients must continue to be offered food and fluids, in line with their preferences and care plan.

Patients transferred between wards

The initial MUST screening must be undertaken within 24 hours of admission to hospital.

If the patient is transferred within the hospital, if not completed electronically, the MUST documentation must be sent with the patient. On admission to the receiving ward or unit, the action plan detailed on the MUST chart must be implemented; there is no need to complete a new MUST screening.

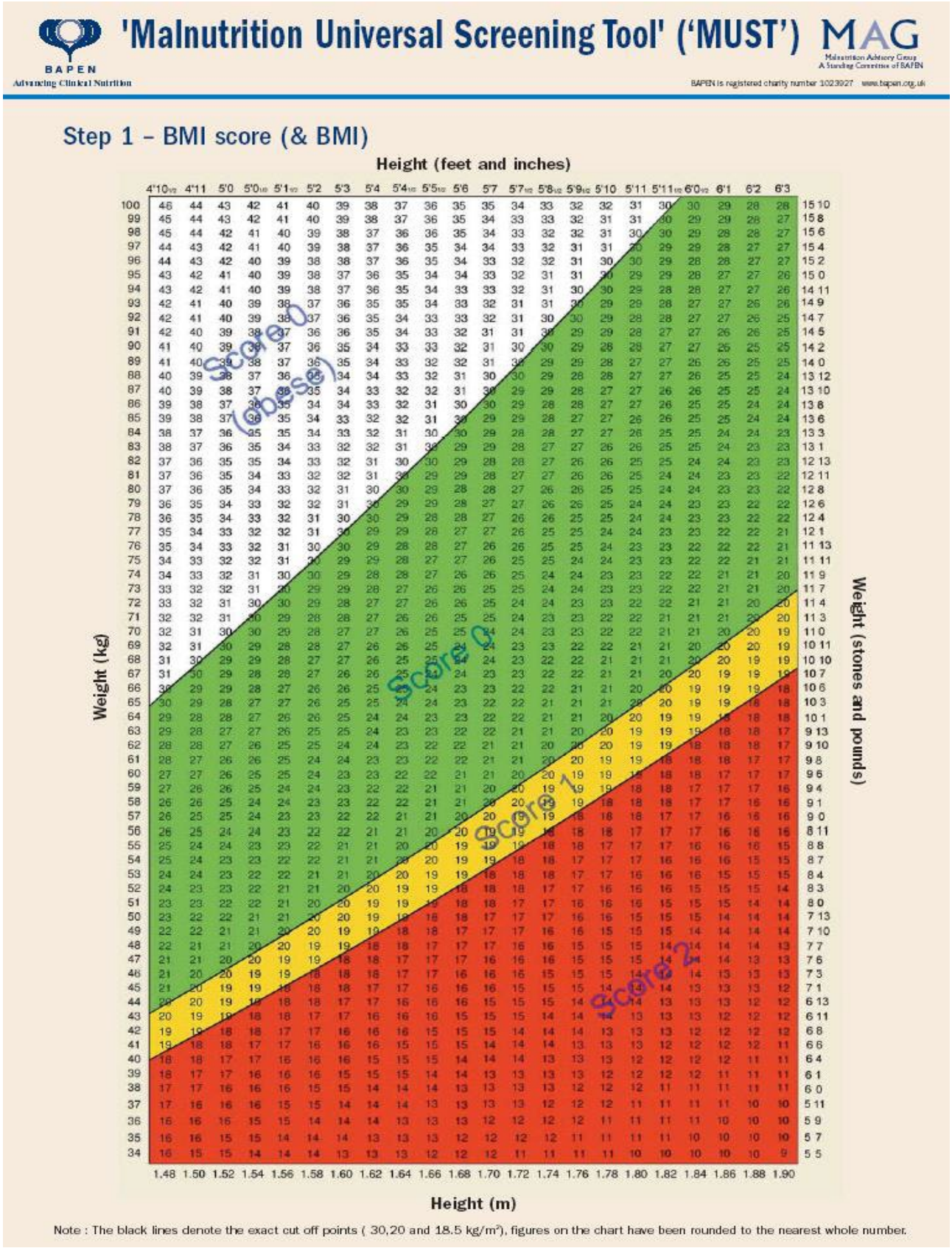
Patients at medium or high risk on discharge from hospital, or nursing intervention

Patients with a score of 1-6must be highlighted to the GP on discharge.

Critical Care

Nutrition screening is appropriate for all inpatients. For those requiring enteral feeding, a start up protocol is in place for their management, they and other patients at high risk must be referred to the dietitian.

BMI Chart [example, taken from MUST, BAPEN 2003]



Note : The black lines denote the exact cut off points (30,20 and 18.5 kg/m^2), figures on the chart have been rounded to the nearest whole number.

Percentage weight loss calculator [taken from MUST, BAPEN 2003]

Weight before weight loss [kg]

	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 [st lb] loss [st lb]

	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 – 13l b	>13lb
9st 11lb	<7lb	7lb – 1st 0lb	>1st 0lb
10st	<7lb	7lb – 1st 0lb	>1st 0lb
10st	<7lb 4lb	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

CP17 Appendix 2: Paediatric Nutrition Screening Tool

Introduction

Nationally there is a move to encourage universal nutrition screening tools. A recent audit carried out on the paediatric ward showed that fluid balance and food charts are routinely kept for all patients. In addition the average length of stay for patients on the paediatric ward is less than 24 hrs. Thus it is a different scenario to adult wards.

This is based on the two most common paediatric screening tools are PYMS (Paediatric York Hill Malnutrition Score) and STAMP (Screening Tool for the Assessment of Malnutrition in Paediatrics).

Patients admitted to the Paediatric Assessment Unit are weighed and have their height measured and these are then plotted on centile charts. There is a flow chart for staff to follow to address any action points. Nationally the main issue that has arisen from the screening tool is the identification of overweight children. When identified these children as well as those who are failing to thrive are referred to the Dietician's for advice and support.

References

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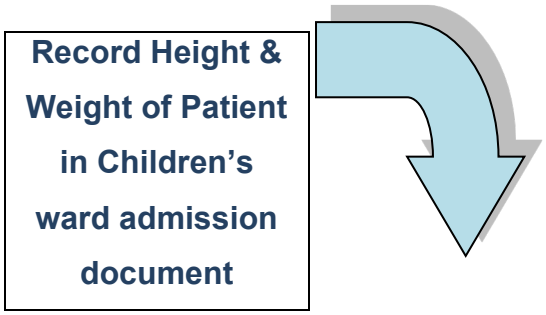
A.E., Owens D.R., Cornelius V.R., Wootton S.A. & Beattie R.M. (2012) Paediatric nutrition risk scores in clinical practice: children with inflammatory bowel disease risk scoring: clinical practice children with inflammatory bowel disease. Paediatric nutrition risk scores in clinical practice: children with inflammatory bowel disease.

Written by
Sister Bhrinder Sagoo - Paediatric Assessment Unit
Susan D Jones - Paediatric Dietitian
March 2014, updated April 2018.

Paediatric Malnutrition Universal Screening Tool (MUST)



If weight centile is ≥2
Centiles above height Centile = overweight

	Tick action
Refer to dietitian	

If weight centile is ≤2
Centiles below height centile = underweight

	Tick action
All ages = if weight 2 centiles below height centile and parental/nursing concerns refer to dietitian	

Appendix 3: Inpatient MUST Screening Chart (Adapted from BAPEN MUST tool Aug, 2013 updated Feb 2022)

Step 1 **BMI score** + **Step 2** **Weight loss score** + **Step 3** **Intake score**

Patient ID

BMI Weight (kg)/ Height^2 (m^2)		**Unintentional weight loss (in the last 3 – 6 months)**		**ADE: if the patient is acutely ill and there has been little or no intake for more than 5 days**	Score 2
>20	0	<5 %	0		
18.5-20	1	5-10%	1		
<18.5	2	>10%	2		

Step 4 – Add scores from steps 1, 2 & 3 together to calculate overall risk of under nutrition

Step 5 – Action plan

	Initial assessment	**Reviews**								
Date										
Height		Only needs recording once (per episode of care)								
Weight/kg										
Step 1 BMI (kg/m^2)										
Step 2 Weight loss										
Step 3 ADE										
Total MUST Score										
Action (see below)										
Signature										

Score 0 Low risk of undernutrition	**Score 1** Moderate risk of undernutrition	**Score 2 -6** High risk of undernutrition
Aim: To prevent development of nutritional problems by monitoring patient	**Aim:** To improve patient's intake to maintain or improve nutritional status	**Aim:** To treat undernutrition
1. Repeat screen weekly	1. Commence food record charts	1. Refer to dietitian
2. Weigh patient weekly	2. Encourage with meals, snacks and nutritious fluids	2. Treat in discussion with dietitian and team
	3. Individualise nutrition care plan in risk assessment booklet & highlight specific needs on handover sheet	3. If enteral feeding is indicated, follow Trust guidelines (CP45) for initiating feed
		4. If able to eat & drink – encourage energy dense meals, snacks and drinks.
		5. Individualise nutrition care plan in risk assessment booklet. Highlight needs on handover sheet & treat underlying factors affecting nutrition.

CP17 Appendix 4: Community Nutrition Screening Tool (adapted from BAPEN MUST tool)

Patient Name:
Patient DOB/NHS No:
Initial Assessment date:

Step 1 BMI Score

Weight ____ kg
Height ____ kg

BMI	Score
>20	0
18.5-20	1
<18.5	2

Step 2 Weight loss score

Unintentional weight loss in past 3-6 months

%	Score
<5	0
5-10	1
>10	2

Step 3 Intake

If patient is acutely ill and there has been or is likely to be no /little nutritional intake for > 5 days - Score 2

Step 4 -Total MUST Score =

Step 5 -ACTION PLAN

Score 0
Low risk of under nutrition
AIM
To monitor Nutritional Screening

Action Plan
No immediate action required.

Yearly Screening

Score 1
Moderate risk of under nutrition
AIM
To improve or maintain nutritional status and evaluate outcome
Action Plan

- Action relevant problems eg swallowing difficulty, poor appetite, pain, nausea, poor dentition
- Food fortification
- Referral to appropriate service/professional
- Review 2-4 weeks
- Minimum 3 monthly re-screen

Score 2-6
High risk of under nutrition
AIM
To treat under nutrition
Action plan

- Action relevant problems eg swallowing difficulty, poor appetite, pain, nausea, poor dentition and refer as appropriate.
- Dietary education to improve and increase overall nutritional intake
- Trial of OTC powdered ONS, if not tolerated consider ONS (as per prescribing guidelines)
- Referral to G.P / Dietitian as per Community Nutrition Guidelines
- Weekly review
- Minimum monthly re-screen

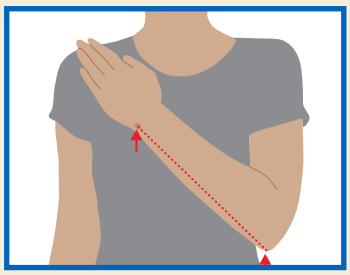
Review date: _____

Signature of Assessor: _____

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).*

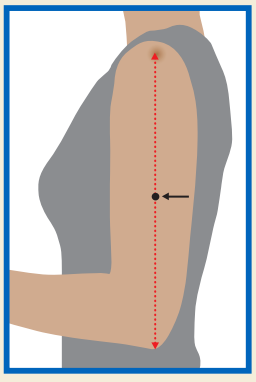
Estimating height from ulna length



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).

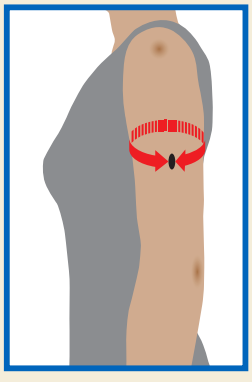
HEIGHT (m)	Men (<65 years)	1.94	1.93	1.91	1.89	1.87	1.85	1.84	1.82	1.80	1.78	1.76	1.75	1.73	1.71
	Men (≥65 years)	1.87	1.86	1.84	1.82	1.81	1.79	1.78	1.76	1.75	1.73	1.71	1.70	1.68	1.67
	Ulna length (cm)	32.0	31.5	31.0	30.5	30.0	29.5	29.0	28.5	28.0	27.5	27.0	26.5	26.0	25.5
HEIGHT (m)	Women (<65 years)	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
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/m^2.
If MUAC is >32.0 cm, BMI is likely to be >30 kg/m^2.

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.*