Malnutrition Management in Adults in the Community

Department of Nutrition and Dietetics

Airedale NHS Foundation Trust

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People Authorised To Use This Guideline:	Primary Care and Community Teams in Airedale, Wharfedale and Craven Does not apply to staff employed by AGH Solutions Ltd.		**Training Requirement To Use This Guideline:**	On induction and supplementary training offered on request

GUIDELINE CHECKED FOR:	**Yes/No**
Corporate Issues:	Y
Clinical Governance Issues:	Y
People Governance Issues:	Y

GUIDELINE REVIEW HISTORY

Version No:	Review Date:	Reviewer:	Changes Made:
2	September 2018	**Riddhi Desai Senior Dietitian**	Re-formatted and updated

If printed, this Guideline is **valid on the day of printing only**. Please ensure that you check AireShare to ensure you are using the current version. This guideline is also available from Airedale NHS trust website:
http://www.airedale-trust.nhs.uk/services/therapies-and-rehabilitation/dietetics/

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1. INTRODUCTION

Airedale NHS Foundation Trust fully recognises that the obligation to implement guidance should not override any individual clinician to practice in a particular way if that variation can be fully justified in accordance with Bolam Principles. Such variation in clinical practice might be both reasonable and justified at an individual patient level in line with best professional judgement. In this context, clinical guidelines do not have the force of law. However, the Trust will expect clear documentation of the reasons for such a decision and for this variation. In addition, any decision by an individual patient to refuse treatment in line with best practice must be respected, escalated to the consultant and fully documented in the appropriate records of care/treatment

1.1 Definition

Malnutrition can refer to both over and under nutrition. In relation to this guideline "malnutrition" refers to under-nutrition: a deficiency of energy, protein and other nutrients that causes adverse effects on the body, the way it functions and clinical outcomes.[1]

1.2 Background

National evidence estimates 5% of the population are at risk of malnutrition causing increased morbidity and mortality. In England, between 2011-2012, the health and social care costs related to malnutrition were estimated to be £19.6 billion. This was mainly due to malnourished individuals requiring more GP visits, prescriptions, hospital admissions, and care home admissions. The health and social care costs per capita for someone who is malnourished is 3.5 times greater than for someone who is not malnourished[2]. Malnourished people are at increased risk for falls, infections, pressure ulcers, poor wound healing, low mood, frequent and long hospital admissions[3].

1.3 Purpose and Scope

This document is a practical guide to support but not replace clinical, patient-centred decision-making. It aims to:

- Optimise patient outcomes via an evidence-based pathway for managing malnutrition; and
- Optimise ONS prescribing, ensuring resources are spent appropriately

1.4 SystmOne Template

SystmOne templates to support managing malnutrition in the community are available from:

AWC community teams: IDCR Malnutrition Management Shared Area

AWC GPs: AWC Malnutrition Management

2 MANAGEMENT

2.1 Malnutrition screening

The Malnutrition Universal Screening Tool (MUST) is an evidence-based tool, which can be used to assess the risk of malnutrition. Nutritional screening should be undertaken:

- On first contact in the care setting, e.g. GP registration, home visit, care home admission
- Upon clinical concern (refer to table 1)
- On opportunities for at risk groups (refer to table 1)
- On acute discharge with MUST ≥ 1 or Oral Nutritional Supplements (ONS) on discharge medications

2.2 Calculating MUST Score

For full MUST toolkit and app visit: www.bapen.org.uk/screening-for-malnutrition/must/introducing-must

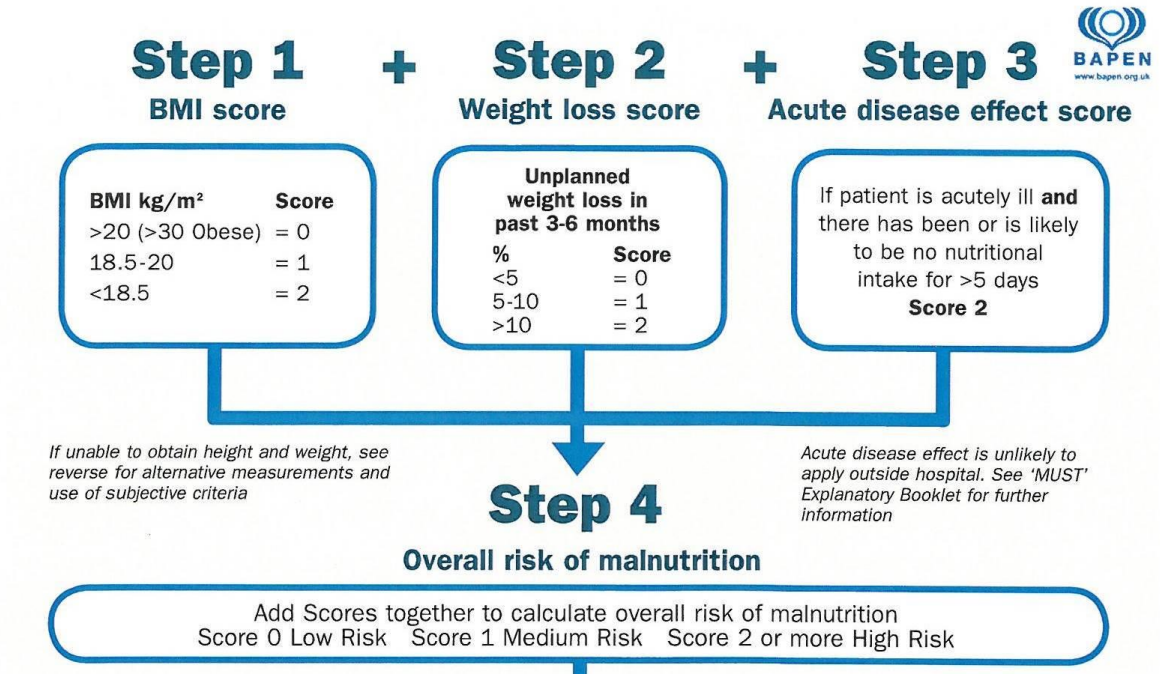

Table 1 - Identifying malnutrition: Examples of clinical concerns and risk groups

A. Examples of clinical concern	
Sign of weight loss	Reported weight loss, loose clothes, rings, watches, dentures
Signs of low BMI	Appear thin, wasted muscles, e.g. arms, legs
Clinical effects	Poor wound healing, pressure ulcers, prolonged illness, apathy
Symptoms	Poor appetite, altered taste, impaired swallowing, altered bowel habits, pain

B. Examples of risk groups	
Chronic disease	COPD, stroke, cancer, HIV/AIDS, GI , renal disease, dementia, neurological conditions
Acute illness	Recent acute discharge for acute disease, surgery, infection
Debility	Depression/other mental health issues, frailty, immobility
Social barriers	Poverty, housebound, isolation, unable to shop/cook

3 Six steps guide to treat malnutrition and appropriate prescribing of oral nutritional supplements (ONS) in adults[4]

Step 1: **Identification of nutritional risk**	The following criteria can be used to identify those who are malnourished or at nutritional risk (NICE guidelines CG32 Nutritional support in adults): • Body Mass Index (BMI) <18.5kg/m^2. • Unintentional weight loss >10% in the past 3-6 months. • BMI <20kg/m^2 and an unintentional weight loss >5% in past 3-6 months. • Those who have eaten little or nothing for >5 days and/or are likely to eat nothing for the next five days or longer • Those who have poor absorptive capacity or high nutrient losses.
Step 2: **Nutritional assessment**	Assess underlying causes of malnutrition and consider accessibility of adequate diet **Refer to page 7, section 4 – Assessment of causes of malnutrition**
Step 3: **Agree treatment goals; offer 'Food First' advice**	Set and document SMART goals including the aim of nutrition support treatment. For example: • 5-10% weight gain in 3-6 months • Target weight or BMI • Prevent further weight loss • Wound healing / improve strength/mobility **Provide dietary information sheets available on SystmOne template** **Promote and encourage food first approach, Over The Counter (OTC) products and examples of homemade nourishing drinks**
Step 4: **Prescribing ONS**	If after 4 weeks food first dietary advice has failed to improve nutritional intake and/or functional status and the patient meets ACBS prescribing criteria listed below then consider prescribing ONS: • Disease – related malnutrition (MUST ≥2) • Intractable malabsorption • Pre- operative preparation of malnourished patients • Dysphagia • Proven inflammatory bowel disease • Following total Gastrectomy • Short bowel syndrome • Bowel fistula **Refer to table 2 (page 9) for groups where prescribing ONS may not be appropriate.** **Refer to product formulary for appropriate ONS prescribing - page 13-16, section 8**
Step 5: **Review of ONS**	• Set a review date for 4 weeks or less and repeat MUST screening (page 4, section 2) • Assess continued need for ONS and if necessary set new goals
Step 6: **Discontinuing ONS prescription**	• When goals of treatment are met • If the patient no longer has clinical need or no longer meets ACBS criteria • Discuss the reason and agree a decrease plan, e.g. half dose for 4 weeks, then discontinue • If a patient wishes to continue ONS, advise homemade fortified drinks or recommend OTC nutritional products (page 8, section 5) • Once ONS is discontinued, review, and nutritional screen again in 4 weeks.

Please refer to Dietetics if there are further nutritional concerns (page 16, section 9)

4 Assessment of Causes of Malnutrition

Problem	Examples include	Signposting
Known medical conditions Or Symptoms of undiagnosed condition Resulting in: • weight loss • altered metabolism • poor appetite • reduced oral intake • Gastrointestinal (GI) symptoms	– Cancers and treatments – Coeliac disease – COPD – Dementia – Diabetes – Dialysis – HIV/AIDS – Infection – Inflammatory bowel disease – Liver disease (decompensated) – Malabsorption conditions e.g. pancreatitis, cystic fibrosis – Neurological conditions e.g. Parkinson's, stroke, MND – Thyroid problems – Wounds e.g. pressure ulcers	Follow relevant guidelines/ pathways. Consider symptoms. Review current management including medications – prescription/adherence. Organise further investigations as required. Consider onward referral e.g. • Specialist GP/Clinician • Specialist nurse • Dietitian (outpatient clinic only) • Therapists • District nursing team • End of life care
Poor emotional or mental health	– Depression – Isolation – Bereavement – Addiction	Consider onward referral e.g. • GP management • Counselling • Social services • Community services • CMHT • Drug/alcohol services
Swallowing problems	– Coughing/choking when swallowing fluids or food – Food left in mouth after swallowing – Wet/gurgly voice after fluids	Consider onward referral: • Speech and Language Therapy • Provide first line advice: Eating, Drinking and Swallowing
Oral health	– Ulcers – Poor dentition/dentures	Consider onward referral: • Dentist
Physical disabilities Consider ability to shop, cook, eat	– Reduced mobility – pain – Frailty – Visual/hearing problems	Consider onward referral e.g.: • Occupational Therapist • Social services • Optician • Audiologist
Social Situation Consider ability to shop, cook, eat	– Poverty – Living conditions – Housebound/isolation	Consider onward referral e.g: • Social services • Community services

5 Malnutrition treatment using 'Food first approach'

A Food First approach is appropriate first line treatment when the MUST score is 1 or more and there are no other ACBS indications for prescribing ONS.

5.1 Care Planning and Goal Setting

Agree a Food First care plan. This can be achieved by using the following dietary information sheets which are available on the SystmOne template and on the trust website:
http://www.airedale-trust.nhs.uk/services/therapies-and-rehabilitation/dietetics/patient-leaflets-nutrition/

- Eating well with a small appetite
- Nourishing drinks for adults
- High energy high protein shopping list ideas
- Eating and drinking with dementia
- Finger foods

These information sheets provide additional advice on how to increase the energy and protein intake of foods and drinks. This can be achieved by providing extra snacks, nourishing drinks, and fortifying foods, as recommended by following NICE guidance CG32[5].

5.1.1 Goal setting

Agree clear goals, determined by weight, BMI, medical conditions and personal circumstances. Examples include:

- 5-10% weight gain in 3-6 months
- Target weight or BMI
- Prevent further weight loss
- Improve strength/mobility/wound healing

5.1.2 Micronutrients

Fruit and vegetables tend to be low in energy and protein and are not always a priority in malnutrition. If there are concerns about micronutrients then consider an OTC multivitamin and mineral tablet.

5.2 Next steps

Review in 4 weeks[1] or earlier when MUST ≥2 or 4-12 weeks when MUST is 1. Repeat nutritional screening and review progress against goals. Consider barriers to adherence if goals are not achieved.

6 Malnutrition treatment: prescribing procedure of ONS

6.1 Indications for oral nutritional supplements (ONS)

ACBS indications for prescribing ONS	
• Disease- related malnutrition (MUST ≥ 2) • Intractable malabsorption • Pre-operative preparation of malnourished patients	• Dysphagia • Proven inflammatory bowel disease • Following total gastrectomy • Short bowel syndrome • Bowel fistula

Some people do not meet ACBS criteria. Therefore prescribing ONS might be appropriate if dietary intake is not adequate, e.g. cystic fibrosis, dialysis, and post-surgery. ONS can be considered to improve clinical outcomes or quality of life. Prescribing ONS for no clinical benefit is not appropriate. However, in palliative care using ONS should be assessed on an individual basis.

For some individuals ONS might not be appropriate (Table 2)

Table 2 – Groups where ONS may not be appropriate

Table 2: Groups where prescribing may not be appropriate
• ACBS prescribing indications are not met • Patient is at the end of life and there is no desire for ONS • Clinical status is unlikely to improve with ONS prescription • ONS misusers (Section 6.2)

6.2 Consideration for prescribing ONS with people who could misuse ONS

Appropriate prescribing of ONS can be challenging with concerns regarding cost and misuse.

Sometimes ONS can be taken instead of meals, defeating their purpose and once ONS are prescribed they can sometimes be difficult to stop. In addition, anecdotal evidence suggests they are sometimes given to family members and/or friends, or sold.

Substance misusers often have nutrition related problems due to their health and social circumstances. However, substance misuse (drug and alcohol misuse) is not a specified ACBS indication for ONS prescription. Therefore if ONS prescribing is appropriate in substance misuse then this will need to be closely monitored.[8.]

Table 3 (page 10) provides some suggested guidance in appropriate prescribing of ONS in this group.

Table 3 – Guidance for ONS in Substance Misusers

Table 3: Suggested guidance for ONS prescribing in Substance Misusers
ALL the following criteria should be met: • BMI < 18 kg/m^2 and weight loss > 10% in 6 months • Co-existing medical condition which could affect weight or food intake • A trial of Food first advice has been unsuccessful • The patient is in a rehabilitation programme or on a waiting list If ONS has been initiated: • Maximum prescription is two ONS per day • Short term prescription, i.e. up to 3 months and no repeat prescriptions • Reduce/discontinue ONS if there is no improvement in weight after 3 months • If weight gain occurs, continue until usual or healthy weight has been achieved, and then negotiate reduction of ONS • OTC supplements e.g. Complan and Meritene Energis are available if prescribing is not indicated. • Consider discontinuing ONS if the patient does not attend review appointments.

7 Guidance to selecting the appropriate ONS product

Section 8 (page 13-15) contains a product formulary from which to select.

Please consider:

1. **Clinical need:**

- Additional protein in the elderly, post-surgery, wound healing
- Appropriate volume can help with encouraging or restricting fluid intake
- Lower volume for fluid restrictions
- Dysphagia: dessert style products are suitable for all stages. There are also stage-specific pre-thickened drinks (consult Speech & Language Therapist)
- Some medical conditions require specialist products, e.g. renal impairment, gastro-intestinal disorders, allergies/intolerances. A dietitian may already be involved. If not, contact the Nutrition and Dietetics Department for further guidance.
- Diabetes: ONS are suitable for patients with diabetes. Milk based products have a lower glycaemic load than fruit juice based supplements. They should be sipped slowly over 20-30 minutes. Blood glucose levels may need to be monitored.

2. **Ability to use product**: Powdered supplements usually require milk and can be difficult to make for some individuals.
3. **Patient preference:** including palatability and volume. For example some people find the higher protein sip feeds less palatable than the standard version. Flavour variety sample packs are available from various nutritional companies (Aymes, Nualtra, Nutricia Abbott, and Fresenius Kabi) if flavour preference is not known. More details on sample service in section 8, page 13. If poor compliance to ONS, explore reasons and trial other alternative ONS; refer to a dietitian if appropriate.

Prescribe the selected product(s) and dose

- **Short-term prescription:** For 4 weeks or less[6]. Starter packs are available from most companies and can help establish preference. This will require a further review after a few days to determine preferences.
- **Dose**: Specify dose with clear direction for use. Recommended dose plus information on volume and nutritional content can be found in Section 8 (page 13-15)
- **Timing:** Between or after meals or sipped gradually throughout the day. Avoid ONS just before a meal as this could lead to reduced food intake.

Agree treatment goals and provide written guidance e.g. dietary leaflet on SystmOne template - Making the most of your supplement

7.1 Screening post-acute discharge on ONS prescription

If a patient has been discharged with ONS, screen for malnutrition risk as per Section 2 (page 4) or follow the SystmOne template as appropriate (page 3, section 1).

7.2 Discontinuing ONS Prescription

ONS should usually be prescribed on a short term basis because ONS prescribed on a long term basis can eventually lead to a decrease in food intake and total energy intake from food.

There is also evidence of continued improvement in body weight and function after stopping ONS[3]. However some individuals may need longer term ONS, usually where nutritional needs are higher and/or the individual cannot maintain nutritional status through diet alone – e.g. dialysis patients, dysphagia, short bowel, malabsorption conditions. For those that require ONS as a sole source of nutrition and those with complex nutritional needs, referral to a registered dietitian is recommended[6].

8 AWC ONS Product Formulary

The products listed below have been determined based on a combination of:

- Palatability - taste tests carried out with service users and health care professionals
- Range of flavours
- Volume
- Nutritional quality in terms of energy and protein content
- Value for money in terms of energy and protein content per £ spent
- ***Cost [using British National Formulary (BNF) prices as of September 2018]**

Service users and healthcare professionals' views were identified in compiling the formulary.

8.1 ONS Sample Service and temporary prescription

All of the products that have been listed in the AWC ONS Product Formulary can be initially tried by the patient by using the company's sample service. This can help identify likes and dislikes before a product is prescribed. Likewise a temporary prescription might also help. This could also help reduce ONS waste and result in ONS prescriptions being more cost-effective. Details of each of the companies sample service's are listed below:

Aymes - https://aymes.com/pages/patient-sample-service

Nualtra- https://nualtra.com/uk-direct-patient-samples/

Nutricia - https://www.nutriciahcp.com/adult/samples/

Abbott- https://samples.nutrition.abbott/sample-order

Fresenius Kabi - http://www.fresubinsamples.ie/

8.2 Powders to make into milkshakes

First line choice for individuals who can physically mix the powder and milk together and milk is tolerated.

Products, cost, and flavours	Suggested dose	Dose provides daily
Aymes Shake Compact (Aymes) – *£0.60 per sachet Vanilla, strawberry, chocolate, banana, neutral	1 sachet plus 100 ml full fat milk Twice daily	Volume: 314 ml Energy: 640 kcals Protein: 24.8 g
***Foodlink Complete powder (Nualtra) – *£0.60 per sachet, £0.55 per serving (tub)** Natural, vanilla, strawberry, chocolate, banana	1 sachet plus 200 ml full fat milk Twice daily	Volume: 514 ml Energy: 770 Kcals Protein: 36.6 g

8.3 Standard ready-made sip feeds – milk based

Suitable where a powdered supplement is not appropriate and milk is tolerated.

Product examples and flavours	Suggested dose	Dose provides daily
Fortisip Compact (Nutricia) – *£1.33 per bottle Vanilla, strawberry, banana, mocha, apricot, forest fruit, chocolate	1 x 125 ml bottle Twice daily	Volume: 250 ml Energy: 600 kcals Protein: 24 g
Ensure Compact (Abbott) - *£1.33 per bottle Banana, café Late, strawberry, vanilla	1 x 125 ml bottle Twice daily	Volume: 250 ml Energy: 600 kcals Protein: 26 g

8.4 High protein ready-made sip feeds – milk based

Suitable for individuals with higher protein requirements e.g. wounds, post-operative, and the elderly.

Product examples and flavours	Suggested dose	Dose provides daily
Fortisip Compact Protein (Nutricia) – **£2.00 per bottle** Banana, berries, hot tropical ginger, mocha, neutral, peach-mango, strawberry, vanilla	1 x 125 ml bottle Twice daily	Volume: 250 ml Energy: 600 kcals Protein: 36 g
Fresubin 2Kcal (Fresenius Kabi) – **£2.10 per bottle** Vanilla, fruits of forest, apricot- peach, cappuccino, neutral , toffee, peach and mango	1x 200ml bottle Twice daily	Volume: 400 ml Energy: 800 kcals Protein: 40 g

8.5 Standard ready-made sip feeds – juice flavoured

Suitable for people who do not tolerate milk style drinks. Only suitable for patients with diabetes where other ONS are not appropriate. Advise to sip very slowly to reduce the risk of hyperglycaemia.

Product examples and flavours	Suggested dose	Dose provides daily
Aymes Shake Smoothie (Aymes) – *£1.00 per sachet Pineapple, peach, mango, strawberry & cranberry	1 sachet plus 150 ml of water Twice daily	Volume: 432 ml Energy: 594 Kcals Protein: 21.4 g
Fortijuce (Nutricia) – **£2.02 per bottle** Lemon, apple, orange, strawberry, tropical, forest fruit, blackcurrant	1 x 200 ml bottle Twice daily	Volume: 400 ml Energy: 600 kcals Protein: 16 g
Ensure Plus Juce (Abbott) *£1.97 per bottle Apple, orange, fruit punch, strawberry, lemon & lime , peach	1 x 220 ml bottle Twice daily	Volume: 440 ml Energy: 660 kcals Protein: 21.2 g

8.6 Dessert style ONS

These are generally lower in nutritional value than liquid based ONS. These should be mainly used with individuals who have swallowing difficulties. However, they might be useful for individuals where previous liquid ONS have been unsuccessful.

Product examples and flavours	Suggested dose	Dose provides daily
Nutricreme (Nualtra) – *£1.59 per pot Chocolate orange , strawberry , vanilla	1 x 125 ml pot 2-3 x daily	Volume: 250-375 ml Energy: 450-675 kcals Protein: 25- 37.5 g
Forticreme Complete (Nutricia) – *£1.96 per pot Banana, chocolate, forest fruit , vanilla	1 x 125 ml pot 2-3 x daily	Volume: 250-375 ml Energy: 400- 600 kcals Protein: 24- 36 g

8.7 Other types of ONS

If none of the ONS listed in the formulary are suitable there are other products, which could be tried. These include yoghurt style, such as Fortisip Yoghurt, and lower volume "shot style" products e.g. Calogen, Calogen Extra, and Pro-Cal Shot. These types of ONS are lower in volume and higher in calories. However they are also lower in protein, micronutrients, and are not nutritionally complete. Therefore they should not be used as first line choice.

Pre-thickened ONS are also available for individuals with swallowing difficulties and these would be recommended by a Speech and Language Therapist.

If you need further guidance on prescribing these products or need to speak to a dietitian about any nutritional queries then please contact the Department of Nutrition and Dietetics on **01535 294856.**

9 Referral to dietitians

If you have any further concerns regarding an individual's nutritional status after following "The Management of Malnutrition in the Community", then please consider referring the individual to the dietetic service.

Referrals to the dietetic service can be actioned electronically using **SystmOne.**

For non SystmOne users, a referral form is available on the Dietetic **Aireshare** section, which can be sent via fax or post.

9.1 Contact

Nutrition & Dietetics Department
Airedale General Hospital
Skipton Road,
Steeton,
Keighley
BD20 6TD

Phone: 01535 294856/57

Fax: 01535 294858

Remember Malnutrition Matters – Act quickly

10 Implementation and Audit

This guideline should be implemented by community healthcare professionals who are involved in the identification, assessment and treatment of malnutrition. This guideline is based on best available evidence and will be reviewed in the light of new evidence or guidelines. The medicines management team will undertake an audit of ONS prescribing in primary care.

11 Development

The guideline was originally developed in December 2015 by Louise Nash and Nick Bergin. The guideline has now been reviewed, updated and re-formatted in September 2018 by the authors.

11.1 Consultation

Various community healthcare professionals across Airedale Wharfedale, and Craven NHS Foundation Trust, along with members of the Nutrition and Hydration Group, and Bradford District Care Trust, were consulted in the development of this guideline.

11.2 Peer review

Nutrition and Hydration Group

12 Glossary of terms

ACBS- Advisory Committee on Borderline Substances

AWC- Airedale Wharfedale and Craven

BMI – Body Mass Index

MUST- Malnutrition Universal Screening Tool

IDCR- Integrated Digital Care Record

ONS- Oral Nutritional Supplements

OTC- Over the Counter

13 Additional Information

This guideline has been based on three key national documents:

1. National Institute for Heath and Care Excellence (NICE) 2006. Clinical Guideline 32: Nutrition Support in Adults.

2. British Association for Parenteral and Enteral Nutrition (BAPEN) 2010. Malnutrition Matters. Meeting Quality Standards in Nutritional Care. A Toolkit for Commissioners and Providers in England

3. Multi-professional Consensus Panel 2017. Managing Adult Malnutrition in the Community. Including a pathway for the appropriate use of ONS.

For further information:

- www.bapen.org.uk Key documents and reports, MUST toolkit
- www.nice.org.uk NICE CG32: Nutrition Support in Adults
- www.bda.uk.com Information on food first approach, dietetic profession
- www.malnutritionpathway.co.uk Guiding principles on improving the systems and processes for ONS use
- The online MUST calculator, MUST charts and alternative measurements and considerations to MUST are available on **SystmOne template.**
- Smart phone App is available to download, which provides a simple to use MUST calculator http://www.bapen.org.uk/screening-for-malnutrition/must/must-app

14 References

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