ASSESSMENT OF MALNUTRITION RISK
> Use the Malnutrition Universal Screening Tool (‘MUST’) for screening patients (refer to Appendix 1)
> Consider any underlying medical problems e.g. oedema
> Potential swallowing problems should be taken into account [1]. Refer to Speech and Language Services if appropriate.

PATIENT IDENTIFIED WITH ‘MUST’ SCORE 1+
Patient identified at risk of malnutrition using ‘MUST’ tool and requiring oral nutrition support.

PATIENT DISCHARGED FROM HOSPITAL
Refer to guidance on Appendix 2

FIRST LINE NUTRITION SUPPORT: DIETARY ADVICE
Consider a ‘Food First’ approach
> Provide Guide to Fortifying Meals and Store Cupboard Ideas (see Appendix 3)
> Set realistic goals of nutritional treatment. These may be to improve nutritional status e.g. wound healing, or to reach or maintain agreed weight or to slow the rate of weight loss.
> Tailor advice to individual patient taking into consideration any dietary restrictions e.g. patients with diabetes
> Review between 1 and 3 months or sooner if condition requires.

ORAL NUTRITIONAL SUPPLEMENTS (ONS)
> Consider further nutritional support for patients who require additional energy and protein after following the ‘Food First’ approach for a minimum of four weeks
> Continue to reinforce ‘Food First’ advice

Medium risk patient (‘MUST’ SCORE 1) OR Advisory Committee on Borderline Substances (ACBS) criteria for supplements NOT met.

High risk patient (‘MUST’ SCORE 2+) AND ACBS criteria met
Use Pan Mersey Area Prescribing Committee Formulary on Appendix 4 when prescribing sip feeds. Unless sip feeds have already been tried and patient preferences established, the initial prescription should be for ONE WEEK supply only. If first trial isn’t tolerated then offer alternative sip feed for further one week trial. After one week, establish patient’s preferred product choice/ flavours and prescribe 1-2 sip feeds per day for ONE month in addition to meals and food fortification advice. Prescription should have clear directions for use. Starter packs not recommended

OVER-THE-COUNTER (OTC) SUPPLEMENTS are recommended e.g Complan®, Meritene®, Nurishment®
Monitoring Monitor patients as recommended on Appendix 1. When the agreed treatment goals are achieved OTC supplements should be discontinued.

REVIEW
Review patients as recommended on Appendix 1 using ‘MUST’ tool and check compliance with sip feeds. When target weight is achieved then reduce sip feeds gradually and continue monitoring the patient for at least 3 months after stopping. Refer to Appendix 1 on when to refer to Community Dietetic Services.

For further information refer to the malnutrition pathway

REFERENCES

APC board date: 29 JUN 2017
Ref: G20 FINAL

Version: 3.0
Review date: June 2020
(or earlier if there is significant new evidence relating to this recommendation)
Managing malnutrition using the ‘Malnutrition Universal Screening Tool’ (‘MUST’) and guidance for initiation of sip feeds in adults

- This flow chart does not cover patients under the care of the Dietitian, tube fed or palliative care patients. Individual discussion is required with patient/carer.
- **If the patient has diabetes, ensure that blood sugar levels are managed and monitored accordingly.
- For more detailed information please see: [http://www.malnutritionpathway.co.uk/](http://www.malnutritionpathway.co.uk/)
- ‘MUST’ is adapted / reproduced here with the kind permission of BAPEN (British Association for Parenteral and Enteral Nutrition). BAPEN does not necessarily support the use of any products in particular.

### Step 1 - BMI score

<table>
<thead>
<tr>
<th>BMI kg/m²</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt; 20</td>
<td>0</td>
</tr>
<tr>
<td>18.5 – 20</td>
<td>1</td>
</tr>
<tr>
<td>&lt; 18.5</td>
<td>2</td>
</tr>
</tbody>
</table>

If unable to obtain height and weight, use alternative measurements (see ‘MUST’ tool at [http://www.bapen.org.uk/](http://www.bapen.org.uk/))

### Step 2 - Weight loss score

<table>
<thead>
<tr>
<th>Unplanned weight loss in past 3-6 months (%)</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 5%</td>
<td>0</td>
</tr>
<tr>
<td>5-10%</td>
<td>1</td>
</tr>
<tr>
<td>&gt; 10%</td>
<td>2</td>
</tr>
</tbody>
</table>

### Step 3 - Acute disease effect score

If the patient is acutely ill and there has been or is likely to be no nutritional intake for >5 days.

<table>
<thead>
<tr>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
</tr>
</tbody>
</table>

NB this step is unlikely to apply outside hospital

Add scores together to calculate overall risk of malnutrition

(Check for dysphagia, if needed refer to local Speech and Language Therapy services)

<table>
<thead>
<tr>
<th>Score</th>
<th>Low Risk</th>
<th>Medium Risk</th>
<th>High Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>No action required</td>
<td>Routine clinical care</td>
<td>Observe</td>
</tr>
<tr>
<td>1</td>
<td>Advise on dietary intake: Encourage small frequent meals and snacks, with high energy and protein food and fluids (see Guide to Fortifying Meals). Care homes document intake for 3 days.</td>
<td></td>
<td>1. Advise on dietary intake: Encourage small frequent meals and snacks, with high energy and protein foods and fluids (see Guide to Fortifying Meals). Care homes document intake for 3 days. Refer to GP to review any treatable weight loss causes including medication and biochemistry Care homes monitor weight weekly</td>
</tr>
<tr>
<td>2 or more</td>
<td></td>
<td>2. Consider over the counter non-prescribable powdered supplements: such as ‘Meritene Energis’ and ‘Complan’ in between meals**</td>
<td>2. Consider prescribing oral nutritional supplements (ONS), 2 daily (see formulary for first line ONS)**</td>
</tr>
<tr>
<td></td>
<td>Repeat screening either:</td>
<td>3. Repeat screening: Care homes review and monitor weight monthly. Community -after 1-3 months according to clinical condition or sooner if the condition requires If improving continue until ‘low risk’ If deteriorating, consider treating as ‘high risk’</td>
<td>3. If no improvement after 4-6 weeks, or more specialist support is required, refer to Dietitian If Dietetic referral not required, continue to monitor requirement for ONS and repeat ‘MUST’ screening every 1-3 months</td>
</tr>
</tbody>
</table>
Appendix 2

GP GUIDANCE FOR PATIENTS DISCHARGED FROM HOSPITAL ON SIP FEEDS
WITH NO PLANNED DIETETIC FOLLOW UP

Add sip feed (as per formulary on appendix 4) to acute prescription and GP to supply for 4-6 weeks.

GP to review 4-6 weeks post discharge. Weigh patient and calculate ‘MUST’ score (refer to appendix 1).

‘MUST’ 1 or less

1. **Stop Sip Feed**

2. **Advise on dietary intake** Encourage small frequent meals and snacks, with high energy and protein food and fluids (refer to Appendix 3)

3. **Repeat ‘MUST’ screening** after 1-3 months according to clinical condition or sooner if the condition requires.

‘MUST’ 2 or more

1. If indicated, **continue sip feed**

2. If patient is not managing adequate food intake and/or losing weight, **refer to Dietitian**

3. If Dietetic referral not required, continue to monitor requirement for sip feed and repeat ‘MUST’ screening every 1-3 months.
A Guide to Fortifying Meals and Store Cupboard Ideas

Do you have a small appetite? Would you like to eat more nourishing foods but without increasing the volume of food that you have to eat?
This information sheet gives some ideas to try until your appetite improves

(Note - This advice may not be suitable for some medical conditions e.g. diabetes, coronary heart disease and kidney disease).

Simple changes can make all the difference:

- **Enriched Milk** - To a pint of full cream milk add: 2-4 tablespoons milk powder. Use in place of ordinary milk to make up coffee, packet soups, sauces, jelly, milk pudding, porridge and other breakfast cereals.

- **To milk-based sauces add**: cream / evaporated milk / grated cheese / butter / enriched milk / milk powder.

- **To puddings add**: cream / custard / margarine / butter / evaporated milk / condensed milk / ice cream / jam / honey / syrup / dried fruit / sugar / enriched milk / milk powder.

- **To soup add**: grated cheese / cream / evaporated milk / dumplings / croutons / pasta.

- **To breakfast cereals add**: enriched milk / evaporated milk / yoghurt / sugar / honey / chocolate chips / dried fruit.

- **To sandwiches add**: extra butter / margarine / mayonnaise / salad cream.

- **To potatoes and vegetables add**: mayonnaise / grated cheese / butter / margarine / fried onions / cream / salad cream / milk-based sauces.

Store Cupboard Ideas:

- Longlife, dried or evaporated milk
- Tinned milk puddings
- Tinned corned beef, ham, sardines, pilchards and tuna
- Cocoa, malted drinks, drinking chocolate
- Variety of tinned and dried fruit and vegetables e.g. baked beans, potatoes, dried fruits, longlife fruit juice, instant mashed potato, lentils and other dried beans and peas
- Breakfast cereals, oats, crackers, crispbread, biscuits, pasta and rice
- Tinned and dried soups
- Tinned meals e.g. macaroni cheese, ravioli, stewed steak

If you continue to have problems with your appetite, contact the person who provided this information for further advice or help.
## Formulary for Prescribable FIRST LINE Oral Nutritional Supplements

Trial with food fortification before prescribing any sip feeds and ensure ‘MUST’ tool assessment and current weight recorded.

Monitor weight at least every 3 months.

<table>
<thead>
<tr>
<th>Supplement Type</th>
<th>ACBS Approved Product</th>
<th>Comments</th>
<th>Flavours</th>
<th>Size</th>
<th>Cost</th>
<th>kcal</th>
<th>Protein</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FIRST LINE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Powdered</td>
<td>Aymes Shake mixed with 200mls whole milk</td>
<td>Choose as first line supplement with patients who are able to access milk supplies and mix their own shake (or has a carer who can). Generally they are not suitable for patients with diabetes due to high carbohydrate load. Please prescribe 1-2 per day.</td>
<td>Banana, Chocolate, Strawberry, Vanilla</td>
<td>57 g sachet</td>
<td>£0.61</td>
<td>388 kcal</td>
<td>15.8 g</td>
</tr>
<tr>
<td></td>
<td>Foodlink Complete mixed with 200mls whole milk</td>
<td></td>
<td>Banana, Chocolate, Strawberry, Natural</td>
<td>57 g sachet</td>
<td>£0.61</td>
<td>383 kcal</td>
<td>18.9 g</td>
</tr>
<tr>
<td></td>
<td>Complan Shake mixed with 200mls whole milk</td>
<td></td>
<td>Banana, Chocolate, Strawberry, Vanilla</td>
<td>57 g sachet</td>
<td>£0.70</td>
<td>387 kcal</td>
<td>15.6 g</td>
</tr>
<tr>
<td></td>
<td>Ensure Shake mixed with 200mls whole milk</td>
<td></td>
<td>Banana, Chocolate, Strawberry, Vanilla</td>
<td>57 g sachet</td>
<td>£0.70</td>
<td>389 kcal</td>
<td>17 g</td>
</tr>
<tr>
<td><strong>SECOND LINE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Powdered</td>
<td>Aymes Complete</td>
<td>Wide variety of flavours (sweet and neutral). Nutritionally complete. Suitable for any patient who will tolerate milk based supplement drinks and not willing or able to mix a milkshake. Prescribe 2 per day.</td>
<td>Banana, Chocolate, Strawberry, Vanilla</td>
<td>200 ml bottle</td>
<td>£1.12</td>
<td>300 kcal</td>
<td>12 g</td>
</tr>
<tr>
<td></td>
<td>Ensure Plus Milkshake Style</td>
<td></td>
<td>Banana, Chocolate, Strawberry, Vanilla</td>
<td>220 ml bottle</td>
<td>£1.12</td>
<td>300 kcal</td>
<td>12.5 g</td>
</tr>
<tr>
<td></td>
<td>Nutricomp Drink Plus</td>
<td></td>
<td>Banana, chocolate, strawberry, vanilla</td>
<td>200 ml bottle</td>
<td>£1.12</td>
<td>300 kcal</td>
<td>12 g</td>
</tr>
<tr>
<td></td>
<td>Ensure Plus Juce</td>
<td>These are suitable for patients who are unable to tolerate milk based supplement drinks/prefer juices. Generally they are not suitable for patients with diabetes due to high carbohydrate load. Please prescribe 2 a day.</td>
<td>Apple, Fruit Punch, Lemon-Lime, Strawberry</td>
<td>220 ml bottle</td>
<td>£1.97</td>
<td>300 kcal</td>
<td>9.6 g</td>
</tr>
<tr>
<td></td>
<td>Fresubin Jucy</td>
<td></td>
<td>Apple, Blackcurrant, Cherry, Orange</td>
<td>200 ml bottle</td>
<td>£1.99</td>
<td>300 kcal</td>
<td>8 g</td>
</tr>
<tr>
<td></td>
<td>Fortijuice</td>
<td></td>
<td>Apple, Blackcurrant, Lemon-Lime, Strawberry</td>
<td>200 ml bottle</td>
<td>£2.02</td>
<td>300 kcal</td>
<td>8 g</td>
</tr>
<tr>
<td></td>
<td>Ensure Plus Fibre</td>
<td>Suitable for any patient who will tolerate milk based supplement drinks. Nutritionally complete. Due to fibre content these may be preferable for patients with diabetes, raised cholesterol or altered bowel habit. Prescribe 2 per day.</td>
<td>Banana, Chocolate, Strawberry, Vanilla</td>
<td>200 ml bottle</td>
<td>£2.07</td>
<td>310 kcal</td>
<td>12.5 g</td>
</tr>
<tr>
<td></td>
<td>Fresubin Energy Fibre</td>
<td></td>
<td>Banana, Chocolate, Strawberry, Vanilla</td>
<td>200 ml bottle</td>
<td>£2.09</td>
<td>300 kcal</td>
<td>11.2 g</td>
</tr>
<tr>
<td></td>
<td>Nutrison Energy Multi fibre</td>
<td></td>
<td>Vanilla</td>
<td>200 ml</td>
<td>£2.19</td>
<td>308 kcal</td>
<td>12 g</td>
</tr>
</tbody>
</table>

Note: List of flavours is not exhaustive. Starter packs are not recommended. Limit to 2 flavours on prescription. All prices correct at the time of writing.

References: 1) BNF Accessed online www.bnf.org on 10.02.17; 2) NHS BSA dm+d browser accessed 10.02.17 and Abbott Laboratories Ltd correspondence