Four Steps to Treat Malnutrition
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Introduction

Malnutrition is often unrecognised and under-treated, 30-40% of patients admitted to care homes are malnourished (Malnutrition Matters 2009).

This pack provides you with the information and tools to treat malnutrition in a residential or nursing care home.

There are four key stages to tackling malnutrition, these are:

Step 1 Screen
Step 2 Snacks
Step 3 Supplements
Step 4 Seek further advice

Each of the 4 steps includes information and practical tips to enable you to provide first line nutrition advice and actions to meet your residents’ nutritional needs.

Use this pack in conjunction with MUST (Malnutrition Universal screening Tool). If you require further information regarding MUST training please contact Chichester Dietitians using: Chichester.dietitians@wsht.nhs.uk.

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Effective treatment of malnutrition requires good communication between care staff and catering staff.

Catering staff need to know which residents are at risk and require food fortification/snacks/extra milk based drinks.

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This pack is designed for use by care home staff. The information, however, is relevant to all and could be applied to all patients regardless of setting.
**Step 1. Screen**

**Malnutrition and Nutrition Screening using MUST**

The MUST tool is a validated, nationally recommended tool for identifying patients at risk of malnutrition.

Malnutrition is a deficiency, excess or imbalance of energy, protein and other nutrients and is associated with:

- Increased vulnerability to illness
- Increased clinical complications
- Compromised immune system
- Reduced wound healing

Effective screening, care planning, high standards of food service delivery and appropriate nutritional support are essential in preventing malnutrition.

**Completing MUST screening**

There are five steps to follow:

**Steps 1 and 2** – Gather anthropometric measurements (height, weight, BMI, recent unplanned weight loss). If it is not possible to obtain height and weight, use alternative measurements.

**Step 3** – Consider the effect of acute disease.

**Step 4** – Determine the overall risk score or category of malnutrition. If neither BMI nor weight loss can be established, assess overall risk subjectively using subjective criteria.

**Step 5** – Use the management guidelines to form an appropriate care plan.
The Steps

Step 1: Body Mass Index - BMI (kg/m²)

Take the resident’s height and weight to calculate BMI, use the BMI ready reckoner to establish the resident’s BMI score. (See page 8).

If weight and height are not available, self reported height or weight, if realistic and reliable, may be appropriate. Or see alternative measurements. (See page 9).

Step 2: Weight loss

Establish the resident’s weight loss score, ask if there has been any weight loss in the last 3 – 6 months and, if so, how much.

Use the weight loss ready reckoner to obtain weight loss score. (See page 8).

Step 3: Acute Disease Effect

This is unlikely to occur in the care/nursing home setting.

Score 2 - If the resident is currently affected by an acute patho-physiological or psychological condition and there has been no nutritional intake or likelihood of no intake for more than 5 days.

Step 4: Overall risk of malnutrition

Add the scores from Steps 1, 2 and 3 to calculate overall risk of malnutrition.

0 = low risk
1 = medium risk
2 or more = high risk.

Step 5: Management guidelines

Implement the correct nutritional management guideline once a MUST score has been calculated:

<table>
<thead>
<tr>
<th>SCORE = 0 low risk - routine clinical care</th>
<th>SCORE = 1 medium risk - observe</th>
<th>SCORE = 2 or more high risk - TREAT High risk of malnutrition</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Repeat screening monthly</td>
<td>• Offer snacks and milky drinks</td>
<td>• Offer snacks and milky drinks</td>
</tr>
<tr>
<td>• Document action taken</td>
<td>• Give 1 sachet of Complan or Build-up a day (made with full fat milk)</td>
<td>• Give 1 sachet of Complan or Build-up (made with full fat milk) a day</td>
</tr>
<tr>
<td></td>
<td>• Start a 4 day food diary</td>
<td>• Fortify meals in line with Improving Nutrition diet sheet</td>
</tr>
<tr>
<td></td>
<td>• If &lt;1/2 meals are eaten after 4 days, refer to High risk action plan</td>
<td>• Start 4 day food chart</td>
</tr>
<tr>
<td></td>
<td>• Weight re-screen monthly</td>
<td>• If no improvement in screening score after 1 month refer patient to the GP for prescription of supplements equivalent to 600 calories per day in addition to food.</td>
</tr>
<tr>
<td></td>
<td>• Document action taken</td>
<td>• If no improvement after a month of taking supplements, refer to dietitian* via GP</td>
</tr>
<tr>
<td></td>
<td>• Re-Screen monthly</td>
<td>• Document action taken</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Weigh and re-screen weekly</td>
</tr>
</tbody>
</table>
* Referral to a dietitian will only be accepted once the appropriate care plan has been implemented. See referral checklist. (See page 20).

Some patients will need referring to the dietitian due to other clinical and nutritional problems even if MUST score is less than 2.

Examples: Dysphagia (swallowing difficulties); Coeliac disease; uncontrolled or newly diagnosed diabetes; recurrent or poor healing pressure sores.

**Taking Measurements for MUST**

**Measuring height and weight**

**Height**

- Use a height stick (stadiometer) where possible. Make sure it is correctly positioned against the wall.
- Ask the resident to remove shoes and to stand upright, feet flat, heels against the height stick or wall.
- Make sure the resident is looking straight ahead and lower the head plate until it gently touches the top of the head.
- Read and document height.

**Weight**

- Use clinical scales wherever possible. Make sure they have been regularly checked for accuracy and ensure that they read zero without the resident standing on them.
- Weigh resident in light clothing and without shoes.
# MUST Tool

## Resident Details

- **Surname:** ……………………………………………………….
- **First Name:** …………………………………………..
- **Room Number:** ………………………………………………….
- **Hospital Number:** ………………………………………..
- **NHS Number:** ………………………………………..

## Western Sussex Hospitals NHS Trust

## Care Homes

Complete the nutrition screening tool within 48 hours of admission/transfer. Re-screen weekly or monthly.

<table>
<thead>
<tr>
<th>Admission date</th>
<th>Admission Weight (kg)</th>
<th>Height (m)</th>
<th>Weight 3-6 months ago (kg)</th>
<th>Alternative measurements (if needed)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Height - Ulna length (cm):</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>BMI category - MUAC (cm):</td>
</tr>
</tbody>
</table>

**NOTE:**

< = less than, > = greater than

S = Standing scales, C = Chair scales, H = Hoist scales

### Step 1

- BMI > 20 (acceptable – overweight)  
  - Score = 0  
  - Score = 1  
  - Score = 2  
- BMI 18.5 – 20 (Thin)  
- BMI 18.5 (Very Thin)  
  - Refer to BMI reckoner

### Step 2

- Unplanned weight loss in the past 3-6 months  
  - Score = 0  
  - Score = 1  
  - Score = 2  
- Refer to weight loss reckoner

### Step 3

- If patient is acutely ill and there has been or is likely to be no nutritional intake for > 5 days  
  - Score = 2  
- Otherwise  
  - Score = 0

### Step 4

Add scores together to calculate overall risk of malnutrition.

- Score 0 Low Risk  
- Score 1 Medium Risk  
- Score 2 or more High Risk

**Completed by:**  
**Designation:**

## Step 5 Management Guidelines

### Score 0, Low Risk

**Routine Clinical Care**

- Repeat screening monthly  
- Document action taken

### Score 1, Medium Risk

**Observe**

- Offer snacks and milky drinks  
- Give 1 sachet of Complan or Build-up (made with full fat milk) a day  
- Start 4 day food chart  
- If < 1/2 meals eaten after 4 days, refer to High Risk action plan  
- Weigh and re-screen monthly  
- Document action taken  
- Re-screen monthly

### Score 2 or more, High Risk

**Treat**

- Offer snacks and milky drinks  
- Give 1 sachet of Complan or Build-up (made with full fat milk) a day  
- Fortify meals in line with Improving Nutrition diet sheet  
- Start 4 day food chart  
- If no improvement in screening score after 1 month, refer patient to the GP for prescription of supplements equivalent to 600 calories per day in addition to food.  
- If no improvement after a month of taking supplements, refer to dietitian via GP.  
- Document action taken  
- Weigh and re-screen weekly

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This is a malnutrition screening tool. Some patients will need referring to the dietitian due to clinical and nutritional problems even if they have a MUST score of less than 2.

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Referral to the dietitian  
Via GP referral, GP to contact The Lodge, SRH. Fax: 01243 831497 Tel: 01243 831498  
Produced May 2012
**BMI and Unplanned Weight Loss Ready Reckoner**

**INSTRUCTIONS FOR COMPLETING THE 'MUST' SCREENING TOOL**

**Step 1:** Measure height and weight. Use the BMI ready reckoner below to get a BMI score. If unable to obtain height and weight, use the alternative procedures overleaf.

**Step 2:** Note weight 3-6 months ago/usual weight. Use the weight loss ready reckoner to get a weight loss score.

**Step 3:** Establish acute disease effect score.

**Step 4:** Add scores from steps 1, 2 and 3 together to obtain overall risk of malnutrition.

### Step 1: BMI Category

<table>
<thead>
<tr>
<th>Height (ft)</th>
<th>Weight range (kg) for BMI</th>
<th>Score 0 (&gt;20)</th>
<th>Score 1 (18.5-20)</th>
<th>Score 2 (&lt;18.5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4' 1</td>
<td>3.12</td>
<td>&gt;40.4</td>
<td>&gt;37.4</td>
<td>&gt;34.4</td>
</tr>
<tr>
<td>4' 2½</td>
<td>1.34</td>
<td>&gt;41.2</td>
<td>&gt;38.1–41.2</td>
<td>&gt;35.1</td>
</tr>
<tr>
<td>4' 3½</td>
<td>1.43</td>
<td>&gt;41.9</td>
<td>&gt;38.3–41.9</td>
<td>&gt;35.8</td>
</tr>
<tr>
<td>4' 4½</td>
<td>1.50</td>
<td>&gt;42.4</td>
<td>&gt;39.2</td>
<td>&gt;36.2</td>
</tr>
<tr>
<td>4' 5½</td>
<td>1.56</td>
<td>&gt;43.4</td>
<td>&gt;40.1–43.4</td>
<td>&gt;36.2</td>
</tr>
<tr>
<td>4' 6½</td>
<td>1.62</td>
<td>&gt;43.8</td>
<td>&gt;40.9</td>
<td>&gt;36.9</td>
</tr>
<tr>
<td>4' 7½</td>
<td>1.67</td>
<td>&gt;44.2</td>
<td>&gt;41.5–44.9</td>
<td>&gt;37.5</td>
</tr>
<tr>
<td>4' 8½</td>
<td>1.72</td>
<td>&gt;44.9</td>
<td>&gt;42.3</td>
<td>&gt;38.2</td>
</tr>
<tr>
<td>4' 9½</td>
<td>1.78</td>
<td>&gt;45.7</td>
<td>&gt;43.2–45.7</td>
<td>&gt;39.0</td>
</tr>
<tr>
<td>4' 10½</td>
<td>1.83</td>
<td>&gt;46.5</td>
<td>&gt;44.5</td>
<td>&gt;40.0</td>
</tr>
<tr>
<td>4' 11½</td>
<td>1.91</td>
<td>&gt;47.2</td>
<td>&gt;45.7</td>
<td>&gt;40.7</td>
</tr>
<tr>
<td>4' 12½</td>
<td>1.98</td>
<td>&gt;48.0</td>
<td>&gt;46.4</td>
<td>&gt;41.4</td>
</tr>
<tr>
<td>4' 13½</td>
<td>2.01</td>
<td>&gt;48.8</td>
<td>&gt;48.1</td>
<td>&gt;41.8</td>
</tr>
<tr>
<td>4' 15½</td>
<td>2.06</td>
<td>&gt;50.0</td>
<td>&gt;49.8</td>
<td>&gt;43.1</td>
</tr>
<tr>
<td>4' 16½</td>
<td>2.12</td>
<td>&gt;51.2</td>
<td>&gt;51.2</td>
<td>&gt;44.1</td>
</tr>
<tr>
<td>4' 17½</td>
<td>2.18</td>
<td>&gt;52.4</td>
<td>&gt;52.4</td>
<td>&gt;45.0</td>
</tr>
<tr>
<td>4' 18½</td>
<td>2.23</td>
<td>&gt;53.6</td>
<td>&gt;53.6</td>
<td>&gt;46.0</td>
</tr>
<tr>
<td>4' 19½</td>
<td>2.29</td>
<td>&gt;54.8</td>
<td>&gt;54.8</td>
<td>&gt;47.0</td>
</tr>
</tbody>
</table>

### Step 2: Unplanned Weight Loss Category

<table>
<thead>
<tr>
<th>Weight (kg) (BEFORE weight loss)</th>
<th>Weight loss category based on PRESENT weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Score 0 (&lt;5%)</td>
</tr>
<tr>
<td>30</td>
<td>&gt;28.5</td>
</tr>
<tr>
<td>31</td>
<td>&gt;29.0</td>
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<tr>
<td>32</td>
<td>&gt;29.5</td>
</tr>
<tr>
<td>33</td>
<td>&gt;30.0</td>
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<tr>
<td>34</td>
<td>&gt;31.0</td>
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<tr>
<td>35</td>
<td>&gt;32.0</td>
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<td>36</td>
<td>&gt;33.0</td>
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<td>&gt;35.0</td>
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<td>&gt;75.0</td>
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</tbody>
</table>

**Step 3: Acute disease effect**

Add a score of 2 if there has been or is likely to be no nutritional intake for >5 days in the presence of acute disease. If not applicable, score “0”.

Acknowledgement: Adapted from the “Focus on Food” resources produced by South Durham and Darlington Nutrition and Dietetic Service and North Durham Nutrition and Dietetic Service.
Alternative Measurement Tables and Diagrams

**Step 1: BMI (body mass index)**

If height cannot be measured:
- Use recently documented or self-reported height (if reliable and realistic)
- If the subject does not know or is unable to report their height, use ulna length to estimate height

**Estimating height from ulna length**

Measure between the point of the elbow (olecranon process) and the prominent bone of the wrist (styloid process) (left side if possible). Read off the corresponding height on the table below.

<table>
<thead>
<tr>
<th>Height (m)</th>
<th>Men (&lt;65 years)</th>
<th>Men (≥65 years)</th>
<th>Women (&lt;65 years)</th>
<th>Women (≥65 years)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1.54</td>
<td>1.53</td>
<td>1.59</td>
<td>1.58</td>
</tr>
<tr>
<td></td>
<td>1.57</td>
<td>1.56</td>
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<td>2.02</td>
<td>2.01</td>
<td>2.30</td>
<td>2.29</td>
</tr>
</tbody>
</table>

If height and weight cannot be obtained:
- Use mid upper arm circumference (MUAC) to estimate BMI category

**Estimating BMI from Mid upper arm circumference**

The subject’s 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 midpoint.

Ask the subject to let their 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

**Step 2: Recent unplanned weight loss**

If recent weight loss cannot be calculated, use self-reported weight loss (if reliable and realistic).

**SUBJECTIVE CRITERIA**

If height, weight or BMI cannot be obtained, the following criteria which relate to them can assist your professional judgement of the subject’s nutritional risk. Please note, use of these criteria is not designed to assign a score.

1. **BMI**
   - Clinical impression – thin, acceptable weight, overweight. Obvious wasting (very thin) and obesity (very overweight) can also be noted.

2. **Unplanned weight loss**
   - Clothes and/or jewellery have become loose fitting (weight loss)
   - History of decreased food intake, reduced appetite or swallowing problems over 3-6 months and underlying disease or psycho-social/physical disabilities likely to cause weight loss.

3. **Acute disease effect**
   - No nutritional intake or likelihood of no intake for more than 5 days.
Step 2. Snacks

How to Boost the Calorie and Protein Content of the Diet

To gain weight you need to eat and/or drink an additional 400-600 calories per day. There are three ways to boost calorie and protein intake:

1. Food fortification
2. High calorie snacks
3. Nourishing drinks

Food Fortification

Food fortification is when small quantities of everyday foods, such as cream, milk powder, butter or milk are added to food to increase the energy and nutrient content. This enables every mouthful eaten to be full of nourishment.

Below is a table of everyday foods that can be added to food to increase the calorie content.

<table>
<thead>
<tr>
<th>Food type</th>
<th>Quantity for one serving</th>
<th>Energy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Double cream</td>
<td>2 tablespoons</td>
<td>149 calories</td>
</tr>
<tr>
<td>Hard cheese</td>
<td>40g</td>
<td>165 calories</td>
</tr>
<tr>
<td>Skimmed milk powder</td>
<td>15g</td>
<td>50 calories</td>
</tr>
<tr>
<td>Butter or margarine</td>
<td>1 heaped teaspoon (7g)</td>
<td>50 calories</td>
</tr>
<tr>
<td>Oil</td>
<td>1 tablespoon</td>
<td>100 calories</td>
</tr>
<tr>
<td>Full cream milk</td>
<td>8 tablespoons (75mls/half a cup)</td>
<td>50 calories</td>
</tr>
<tr>
<td>Jam, Honey, marmalade</td>
<td>1 heaped teaspoon</td>
<td>45 calories</td>
</tr>
<tr>
<td>Sugar</td>
<td>1 heaped teaspoon</td>
<td>25 calories</td>
</tr>
</tbody>
</table>
Recipes for Fortified Food

Include the following fortified recipes in your menu plan to offer a high energy high protein option to patients at risk of malnutrition.

Fortified Milk

1 pint full cream milk (386kcal)
60g milk powder (209kcal)

Mix the milk powder with a small quantity of milk to make a smooth runny paste, add this to the remainder of the milk and mix.

This milk can be used as a direct substitute for ordinary milk. So add it to tea, coffee, on breakfast cereals, etc.

595 calories/pint

Scrambled Egg

2 eggs (180kcal 16g protein)
1 tablespoon of butter or spread (not low fat) (90kcal)
1 tablespoon of single cream (30kcal)

Melt the butter in a pan. Whisk the eggs, and cream together. Add the mixture to the pan, stirring well, until the eggs are cooked.

As a high calorie alternative you could add some cheese to make cheesy scrambled egg and serve on a muffin, toast or bread, spread thickly with butter or spread.

Scrambled egg = 300 calories, 16g Protein per serving

Fortified Mashed Potato

1 scoop mashed potato
1 teaspoon of butter or spread (not low fat) (50kcal)
1 tablespoon of double or whipping cream (75kcal)

Mix the extra butter and cream into the mashed potato.

**Adds an additional 125 calories**

Also try adding grated cheese for cheesy mash potato.
Fortified Soup

1 large ladle (125mls) soup
2 tablespoons of double cream (149kcal)
1 x 15g scoop (heaped tablespoon) of milk powder (50kcal)

Mix the milk powder and cream, adding extra whole milk as necessary to make a runny paste. Add the mixture to the soup.

Adds an additional 200 calories

Fortifying Potato Topped pies (Shepherd's Pie, Cottage Pie, Fisherman's pie etc.)

1 portion of pie
40g cheese, grated (165kcal)
1 teaspoon of butter or spread (not low fat) (50kcal)

Add the grated cheese and the oil to the top of the pie and grill so the cheese is melted and the butter has been absorbed (about 5 minutes).

Adds an additional 215 calories.

Fortifying baked dishes (Macaroni cheese, potato gratin, pasta bake, cauliflower cheese etc.)

1 portion of dish
40g cheese, grated (165kcal)
20g breadcrumbs (70kcal)
1 teaspoon oil (27kcal)

Sprinkle the grated cheese and breadcrumbs over the dish then cover with the oil. Grill until the cheese has melted and the breadcrumbs are slightly crispy.

Adds an additional 260 calories.
Fortified Custard

1 large ladle (125mls) of custard made with full cream milk
1 x 15g (heaped tablespoon) milk powder (50kcal)
2 tablespoons double cream (149kcal)

Mix the milk powder and cream, add extra whole milk as necessary to make a runny paste. Add the mixture to the custard.

Adds an additional 200 calories.

Fortified Rice Pudding

125g Ready made Rice Pudding
1 x 15g (heaped tablespoon) of milk powder (50kcal)
2 tablespoons of double or whipping cream (149kcal)

Mix the milk powder and cream, add extra whole milk as necessary to make a runny paste. Add the mixture to milk pudding.

Adds an additional 200 calories.

Variations: Add 2 teaspoons of jam to the milk pudding to provide an extra 90 calories.

Fortifying Porridge

Porridge made with milk as per instructions
1 x 15g (heaped tablespoon) of milk powder (50kcal)
2 tablespoons of double or whipping cream (149kcal)

Mix the milk powder with the cream or evaporated milk, add extra milk as necessary to make a runny paste. Add the mixture to the porridge.

Adds an additional 200 calories.

Can be served with fresh fruit, jam or syrup.
Snack Ideas to Increase Your Calorie Intake

Encourage high calorie snacks for residents at risk of malnutrition, particularly if they have a small appetite or they have a good appetite and are losing weight.

The following list provides some snack ideas:

**About 100 calories:**
- 150ml of full cream milk
- 150g whole yoghurt
- Mini swiss roll
- Fully coated chocolate biscuit
- Shortbread finger
- One digestive biscuit
- Two Rich Tea biscuits

**About 150 calories:**
- 150g thick and creamy yoghurt
- Crumpet with butter
- Chocolate coated ice cream block
- 150g ready-to-eat custard pot
- 150g ready-to-eat rice pudding
- Scotch pancake with butter

**About 200 calories:**
- 2 scoops dairy ice cream
- Crumpet with butter and jam
- 30g cereal with 100ml full cream milk
- 2 Cream crackers with butter and cheddar cheese
- 2 Digestive biscuits with butter
- Small pot of trifle (ready made)
- 2 oatcakes with butter
- Fruit malt loaf with butter
- Potato scone with butter
- Fruit corner type yogurt
- Scotch pancake with butter and jam

**About 250 calories:**
- Small scone with butter
- Jam doughnut
- 2 oatcakes with butter and cheese
- Ring doughnut
- Ginger cake with butter
- 200g ready to eat rice pudding

**About 300 calories:**
- Scone with butter and jam
- 50g Chocolate bar
- 2 digestive biscuits with butter and cheddar cheese
- Sandwich with two slices bread, butter and cold meat
- Fruit cake with butter
- Half pint of fortified milk
Nourishing Drinks

Provide a nourishing drink at least once a day in addition to usual fluid intake.

Milkshake – Serves 1

200ml fortified Milk (210kcal)
Milkshake flavouring to taste e.g. Nesquick or Crusha (20g powder = 80kcal)

Mix the milkshake flavouring in to the milk and stir well.

**Total = 290 calories.**

Variations:
Add 1 scoop of ice cream (60g) (extra 105 calories).
Add 1 tablespoon of double cream (extra 75 calories).

Complan/Build-up Milkshake - Serves 1

1 sachet of Complan or Build up milkshake (250kcal)
200ml full cream milk (136kcal)

Add the Complan or Build up sachet to either a shaker or in the liquidiser and shake or blend the powder and the milk together until it is a smooth consistency.

**Total = 390 calories.**

Hot Chocolate - Serves 1

150mls of fortified full cream milk (158kcal)
2 tablespoons of whipping or double cream (149kcal)
3 teaspoons of hot chocolate powder (20g powder = 75kcal)

Heat all the ingredients together until simmering in a saucepan or microwave.

**Total = 380 calories.**

Variations:
Top with aerosol cream and a chocolate flake (extra 90 calories).
**Milky Coffee – Serves 1**

150mls of fortified full cream milk (158kcal)
2 tablespoons of whipping or double cream (149kcal)
1 teaspoon coffee powder

Mix together milk, cream and milk powder. Heat until simmering in saucepan or microwave. Add to coffee powder.

**Total = 310 calories.**

Variations:
Add a measure of spirit, top with aerosol cream.

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**Yoghurt Drink - Serves 1**

150mls of fortified full cream milk (158kcal)
1 pot of thick and creamy fruit yoghurt (158kcal)

Blend all the ingredients together in a liquidiser and serve.

**Total = 320 calories.**

Variations:
Pineapple - add 3 rings of fresh pineapple before liquidising.
Banana - add 1 medium size banana chopped and 1 teaspoon of sugar and blend together with the other ingredients in the liquidiser.
Step 3. Supplements

When to Start Prescribing Supplements

Provide residents with an additional 400-600 calories per day from fortified foods for 4 weeks.

If the resident has continued to lose weight and continues to be at high risk of malnutrition (MUST > 2), start oral nutritional supplements to increase the resident’s calorie intake by a further 600 calories per day.

Supplements should be used in conjunction with previous interventions i.e. continue to give additional snacks and fortify food as well as give supplements. This will increase the residents overall calorie intake and promote weight gain and improvement in nutritional status.

Complan Shake
A prescribable version of Complan. If the resident can manage a milky drink 250ml in volume, use Complan Shake as a first line choice of supplement.

- **Recommended prescription:** 57g sachet made up with 200ml whole milk, twice a day.
- **Available flavours:** Original, Vanilla, Strawberry, Chocolate, Banana.
- **Provides (when made up with 200ml whole milk):** 390 calories and 15.5g Protein per drink.

Fortisip Compact
A small volume sip feed (125ml). Suitable if the resident is unable to drink large volumes of fluid.

- **Recommended prescription:** 125ml twice a day.
- **Available Flavours:** Strawberry, Vanilla, Banana, Mocha, Apricot, Forest Fruit and Chocolate.
- **Provides/125ml:** 300 calories and 12g protein.

Fortijuice (or other juice style supplements)
If a resident is unable to tolerate milk or dislikes milk. A juice style supplement is recommended.

- **Recommended prescription:** 200ml twice a day
- **Available Flavours:** Lemon, Apple, Orange, Strawberry, Tropical Fruit, Forest Fruit, Blackcurrant.
- **Provides/200ml:** 300 calories and 8g protein.

Forticreme (or other dessert style supplements)
If the resident is unable to drink thin fluids due to dysphagia (swallowing difficulties) and has been recommended a thickened fluid consistency.

- **Recommended prescription:** 125g three times a day.
- **Available flavours:** vanilla, chocolate, fruits of forest, banana.
- **Provides/125ml:** 200 calories and 12g protein.
Step 4. Seek Further Advice

If a resident is continuing to lose weight, after 4 weeks of having a supplement, refer the resident to the Dietitians for more specialist advice.

If the resident’s weight remains stable over the 4 weeks continue the supplements for a further 8 weeks and weigh weekly.

If the resident’s weight remains stable after a total 12 weeks of oral nutritional support, stop the supplements and monitor weight. Continue with food fortification and snacks.

If the resident’s weight decreases, after oral nutritional supplements have been stopped, they may need to be re-started.

If the resident’s weight decreases at any time during the 12 weeks whilst on supplements, then refer to the Dietitians for specialist advice.

If the resident’s weight increases after 4 weeks with oral nutritional supplements continue supplements until the patients MUST score returns to 1 or less, or their weight has remained stable for 3 months. Supplements should then be stopped and weight monitored.
Referral Form

To prevent delay, please complete in full and ensure MUST score is included

Name: ..................................................... Date of birth: ........................................
Address: ..............................................................................................................................
....................................................................................................................................................
....................................................................................................................................................
....................................................................................................................................................
Tel No: ......................................................................................................................................
GP: ........................................... Hospital No. ........................................ NHS No. .....................
Medical History: ...........................................................................................................................
....................................................................................................................................................
....................................................................................................................................................
....................................................................................................................................................
Current Medication: ......................................................................................................................
....................................................................................................................................................
....................................................................................................................................................
....................................................................................................................................................
Current weight .......... Height ........... Current BMI .......... ‘MUST’ Score: ..............
Action already taken: ......................................................................................................................
....................................................................................................................................................
....................................................................................................................................................
....................................................................................................................................................
Reason for referral – please tick boxes

□ Poor appetite/intake (seen within 2 weeks)
□ Swallowing problems (outpatient clinic)
□ Unintended weight loss (home visit)
□ Nutritional supplements (housebound patients only)
□ Other (please specify) ..................................................................................................................
□ Special diet advice (please specify) .............................................................................................

Any additional information: ...........................................................................................................
....................................................................................................................................................
....................................................................................................................................................
....................................................................................................................................................

Referred by: ..................................... Job title: .................................................................
Tel. No. ................................................... Location: .............................................................
Signed: .............................................. Date: ...............................................................
### Referral Checklist

<table>
<thead>
<tr>
<th>Action</th>
<th>Date actioned</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Screen – is MUST: 1 or more</td>
<td>Weight: MUST score:</td>
<td></td>
</tr>
<tr>
<td>2. Snacks – Is resident having an additional 400-600 calories/day</td>
<td>Is patient having fortified food?</td>
<td>Is patient having 1-2 snacks/day?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Is patient having a nourishing drink each day?</td>
</tr>
<tr>
<td>Re-screen – is weight still decreasing? MUST &gt; 2?</td>
<td>Weight: MUST score:</td>
<td></td>
</tr>
<tr>
<td>3. Supplement – request prescription of oral nutritional supplements to the value of 600kcal.</td>
<td>Choose one of the following depending on resident:  - Complan shake b.d.  - Fortisip compact b.d.  - Fortijuice b.d.  - Forticreme t.d.s.</td>
<td></td>
</tr>
<tr>
<td>Re-screen – is weight still decreasing.</td>
<td>Weight: MUST score:</td>
<td></td>
</tr>
<tr>
<td>4. Seek further advice</td>
<td>Request GP referral to Dietitian. Please send copy of this for Dietitian</td>
<td></td>
</tr>
</tbody>
</table>

Please send the completed checklist form, referral form and MUST to: The Dietetic Department, The Lodge, St Richard’s Hospital or fax to the dietitians on 01243 831497
How to fill in the checklist

- Screen patient.

- If MUST score is 1 or more follow ‘Snack’ advice. Please write on checklist any relevant comments.

- Re-screen monthly.

- If MUST score is 1 or weight remains stable after one month. Continue with current management plan.

- If MUST score is 2 or more after one month. Request ONS prescription from GP – write on checklist which supplement has been prescribed and any additional relevant comments.

- Rescreen weekly.

- If weight is stable after a month. Continue with ONS prescription until MUST = 1 or less or until weight has been stable for 3 months.

- If weight continues to decrease after a month ask GP to refer to Dietitians. Record the date of this request and send a copy of the checklist to the GP.

See below for an example of how to fill in the checklist.
### Referral Checklist - Example

<table>
<thead>
<tr>
<th>Action</th>
<th>Date actioned</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Screen – is MUST 1 or more</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weight: 43kg, MUST score: 2</td>
<td>12.04.12</td>
<td></td>
</tr>
<tr>
<td>2. Snacks – Is resident having an additional 400-600 calories/day</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is patient having fortified food?</td>
<td>13.04.12</td>
<td>Only eating ½ meals</td>
</tr>
<tr>
<td>Is patient having 1-2 snacks/day?</td>
<td>15.04.12</td>
<td>Eating snacks well</td>
</tr>
<tr>
<td>Is patient having a nourishing drink each day?</td>
<td>13.04.12</td>
<td>Dislikes milk</td>
</tr>
<tr>
<td>Re-screen – is weight still decreasing? MUST &gt; 2?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weight: 41kg, MUST score: 2</td>
<td>12.05.12</td>
<td></td>
</tr>
<tr>
<td>3. Supplement – request prescription of oral nutritional supplements to the value of 600kcal.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Choose one of the following depending on resident:</td>
<td>16.05.12</td>
<td>Doctor prescribed Fortijuice b.d.</td>
</tr>
<tr>
<td>• Complan shake b.d.</td>
<td></td>
<td>24.05.12: Patient will take one a day struggles with the second due to volume.</td>
</tr>
<tr>
<td>• Fortisip compact b.d.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Fortijuice b.d.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Forticreme t.d.s.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Re-screen – is weight still decreasing.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weight: 40kg, MUST score: 3</td>
<td>12.06.12</td>
<td></td>
</tr>
<tr>
<td>4. Seek further advice</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Request GP referral to Dietitian. Please send copy of this for Dietitian</td>
<td>12.06.12</td>
<td></td>
</tr>
</tbody>
</table>