Scottish Oral Nutritional Supplements Short Life Working Group (ONS SLWG)

Guidelines for appropriate prescribing of Oral Nutritional Supplements in adults (oral use)

April 2018

Introduction and Background

Both malnutrition and dehydration have substantial adverse effects on health, disease and well-being, yet they often go un-recognised and untreated.[1] Malnutrition and dehydration also have a substantial impact on the health economy with increased demands on General Practice services, out of hours services and increased rates of transition across pathways of care.[1,2] It is known that savings could be made through full implementation of appropriate high quality pathways of nutritional care.[3] Prescribing information has shown increasing trends in both ONS volume use and spend across NHS Scotland in recent years.

A sub-group of the Scottish ONS Short Life Working Group (2017/8) have produced these guidelines on the appropriate use and prescription of oral nutritional supplements for oral use by adults in Scotland. There are 10 recommendations within this document. These support people (as patients) and professionals to work together to share clinical decisions on nutritional care that focus on outcomes that matter to them in line with *Realistic Medicine* in Scotland.[3] The aim of these guidelines and recommendations is to improve the quality, clinical and cost-effectiveness of ONS use and prescribing.

These guidelines also support national guidance from Healthcare Improvement Scotland, National Institute for Health and Care Excellence (NICE), NHS England, the British Association for Parenteral and Enteral Nutrition (BAPEN) and other professional organisations. The Scottish ONS Short Life Working Group extend thanks to PresQIPP for sharing and allowing modification of their original document[4] for use in NHS Scotland.

All members of the health and social care team including nurses, dietitians, medical staff, social care staff, pharmacy staff and other prescribers should refer to this information. It is for use across all settings including NHS, care homes, prisons and community and should be used in conjunction with existing local policies and guidelines e.g. in relation to nutritional screening, nutritional support and the use and management of ONS.

Contents

Key Recommendations

1. The first line treatment approach should be Food 1ST - maximising nutritional intake through food and drinks. Where possible people should be encouraged to self-manage their nutritional care.
2. People should be referred to a dietitian before they are prescribed ONS.
3. ONS should only be prescribed in the presence of specific indications as defined by ACBS (Advisory Committee on Borderline Substances).[8]
4. Where disease related malnutrition is suspected, it is essential to use a validated screening tool such as the Malnutrition Universal Screening Tool[6] (MUST) to confirm this: ONS should not be used as a first line treatment for people with a MUST score of less than 2.
5. Those initiating ONS must also take into account an individual's medical history and special dietary requirements (including food allergies) when recommending an ONS product. Some products may not be appropriate for those with e.g. chronic kidney disease, diabetes or who are pregnant. ONS should not be prescribed for people at risk of re-feeding syndrome unless on the advice of a dietitian.
6. ONS prescribing should be in line with the local NHS Board ONS formulary. Consideration must be taken where patients are moving across NHS Board boundaries to ensure appropriate, clinical and cost effective ONS prescribing. When developing / updating ONS formularies Boards should use the *Best Practice Guidance for Adult ONS formulary development* produced by the Scottish ONS Short Life Working Group 2017.
7. Where ONS are required post hospital discharge, the first line preferred primary care formulary product should be used and people should be provided with at least 1 week's supply on discharge with ongoing care and a clear nutritional monitoring plan in place.
8. Prescribers and staff initiating ONS should consider the most clinically and cost effective product and ensure that the product and flavour are tailored to the person's needs, likes and dislikes.
9. Dosage should be between 1-3 units per day, which provides 300-900kcal/day. Benefits of ONS are seen typically with 2-3 months supplementation in the community however supplementation periods may be shorter or longer (up to 1 year) according to clinical need.[5]
10. People prescribed ONS should be reviewed regularly throughout the duration of their treatment to assess the continued clinical need for ONS and continued appropriateness of the product. ONS should not be prescribed on a repeat basis and should be discontinued if people fail to engage in review and monitoring. People who are prescribed ONS long term should be reviewed by dietetic services at least annually.

Six stages to prescribing ONS (oral use) for adults

Stage 1: Identifying nutritional risk

The Malnutrition Universal Screening Tool [6] (*MUST)* is a validated, easy to use 5-step screening tool for assessing adults who have established, or are at risk of malnutrition. It is used throughout the NHS in a variety of different settings, including across primary and secondary care.

A *MUST* score of 0 = low risk, 1 = medium risk and ≥ 2 = high risk.

An online *MUST* score calculator can be accessed at www.bapen.org.uk/screening-and-must/must-calculator (this link works with mobile devices)

A full version of the *MUST* screening tool can be found here: http://www.bapen.org.uk/pdfs/must/must-full.pdf

Stage 2: Assessing other factors affecting nutritional status

Assess, and where possible address, underlying causes of malnutrition and consider the person's ability to achieve an adequate dietary intake:

- Physical symptoms (i.e. vomiting, pain, constipation, diarrhoea, severe dry mouth, dehydration, low mood)
- Impact of any treatment / medication and / or requirement for medication to be reviewed to manage above symptoms
- Prognosis

- Ability to chew and swallowing issues
- Environmental and social issues e.g. cooking skills and facilities
- Psychological issues
- Substance or alcohol misuse
- Dentition

Consider referral to appropriate local services e.g. dentist, social services, Speech and Language Therapy, local cookery classes

People with complex nutritional needs, e.g. renal disease, liver disease, poorly controlled diabetes and gastrointestinal disorders may require specialist advice and should be referred to dietetic services.

Stage 3: Setting a treatment aim

- Agree and document a treatment aim for malnutrition with a timescale e.g.
  - Target weight / target weight gain / target BMI over a period of time
  - Preventing further weight loss / reduce rate of weight loss over a period of time
  - Weight maintenance (where weight gain is unrealistic or undesirable)
  - Improved activities of daily living, improving strength or mobility

- Wound healing
- Increasing intake and nutritional value of foods and drinks

Additional benefits of improving nutritional status are:

- Reduced risk of falls
- Reduced infections
- Prevention of pressure ulcers
- Improved mental health e.g. improve mood, improve cognition

Stage 4: Setting dietary goals - to increase the nutritional value of everyday foods

Use this dietary approach where *MUST* ≥ 1, re-screening (weekly in hospital and monthly in community settings) and re-assessing on a regular basis. Where possible people should be encouraged to self-manage e.g. checking weight, keeping a food diary and repeating their *MUST* score. Dietary goals may include:

- Varied diet with regular meals and snacks. If required, advise on quick / easy / cheap meals at home and meal delivery companies
- Additional snacks will be needed to meet requirements, especially for those with a small appetite
- Regular fluids: 1500 – 2000ml per day which equates to 6-8 drinks per day
- Encourage nourishing drinks and over the counter (OTC) ONS products*
- Nourishing, high calorie, food fortification advice
- Further advice can be found at: https://www.bda.uk.com/foodfacts/malnutrition[7]

* Home-made nourishing drinks and over the counter (OTC) ONS products, e.g. Aymes® Retail, Complan® Milkshake or soups, Meritene® Energis (formerly Build Up®) milkshakes or soups, Nurishment® milkshakes should be encouraged. Local pharmacies can provide further information on OTC products. Also see Appendix 1

Stage 5: Prescribing ONS

Where dietary advice alone is unlikely to or has not achieved an improvement in line with treatment goals (e.g. in those who are unwell and in whom the disease has severely limited appetite) people may require ONS **in addition** to dietary advice to achieve their treatment aim. ONS should be used as **supplement** to the dietary approach as outlined in Stage 4 above. In addition, consider referral to your local dietetic service (please check local referral guidelines - in some NHS Board areas ONS can only be initiated when patients are under the care of a dietitian).

Patients **must** meet at least one of these ACBS criteria to be eligible for an NHS prescription for ONS: **Short bowel syndrome, intractable malabsorption, pre-**

operative preparation of patients who are undernourished, proven inflammatory bowel disease, following total gastrectomy, dysphagia, bowel fistulae or disease-related malnutrition*.[8]

* Where disease related malnutrition is suspected it is essential to use a validated screening tool such as *MUST* to confirm this. **Only consider prescribing ONS for patients with a *MUST* score of ≥ 2.**

If ONS are prescribed please note and advise people on the following to manage expectations from the outset:

- Dosage, timing and length of treatment should be specified. Clinical benefits of ONS are often seen with 300 – 900kcal/day (e.g. 1-3 ONS servings per day). In the community benefits are typically seen with 2-3 months supplementation, however supplementation periods may be shorter or longer (up to 1 year) according to clinical need.[5]
- Consider the most clinically and cost effective product and ensure that the product and flavour are tailored to the person's needs, likes and dislikes. A one week trial or starter pack should always be prescribed or provided initially to avoid wastage in case products are not well tolerated. Avoid repeat prescribing of starter packs of ONS as they often contain a shaker device, which makes them more costly.
- ONS should not be prescribed on a repeat basis.
- Take into account an individual's medical history and special dietary requirements (including food allergies) when recommending an ONS product. Some products may not be appropriate for those with, for example, chronic kidney disease, diabetes or who are pregnant. ONS should not be prescribed for people at risk of re-feeding syndrome unless on the advice of a dietitian (see Appendix 2). People with diabetes should not routinely be prescribed juice based ONS. This is because these products have a higher glycaemic index, and blood glucose levels will need monitoring, with possible changes required to medication / dose.
- To maximise the effectiveness of ONS and avoid spoiling appetite ONS should be taken between or after meals and not before or as a meal replacement. ONS not finished in one sitting can be stored in the fridge and consumed within 24 hours to avoid wastage.
- ONS can be added to foods e.g. soups, puddings, breakfast cereals.

Stage 6: Reviewing, monitoring and discontinuing ONS

Review regularly (at a minimum 4-6 weekly) to monitor agreed goals and assess continued need for ONS.

The following parameters should be monitored:

- Weight / BMI / wound healing depending on the goal set - if unable to weigh people, record other measures to assess if weight has changed, e.g. mid-upper arm circumference (instructions can be found here: http://www.bapen.org.uk/pdfs/must/must_page6.pdf), clothes / rings / watch

looser or tighter, visual assessment.

- Changes in food and drink intake.
- Compliance with ONS and stock levels at home / care home.
- When conducting general medication reviews, ONS should be included as above.
- Discontinue ONS:
    - When aim of treatment is met.
    - If the person no longer wishes to take them.
    - If aim of treatment is not met after 3-6 months and there has been no clear benefit of ONS therapy.
    - If people fail to engage in review and monitoring.
- Where people require long term ONS prescribing (i.e. ≥ 6months) they should be reviewed by a dietitian at least once per year.
- If the patient no longer meets ACBS criteria, ONS must be discontinued as they should no longer be prescribed by the NHS. If the patient wishes to continue with ONS they can be advised that OTC ONS are available. They can also be advised on the food first approaches and homemade nourishing drinks as in Stage 4.
- If clinically indicated, review after discontinuation of ONS (e.g. after 1 month) to ensure that there is no recurrence of the precipitating problem and targets are still being met.

Additional Information

Malnutrition Universal Screening Tool (*MUST*)[6]

MUST is a validated screening tool for malnutrition and is used throughout the NHS in primary and secondary care. It was developed by a multi-disciplinary group of healthcare professionals. It is an easy to use five-step screening tool to identify adults, who are malnourished or at risk of malnutrition. It also includes management guidelines for use in hospitals, community and other care settings and can be used by all care workers. Different management guidelines are recommended based on the calculated *MUST* score, which indicates a person's overall risk of malnutrition.

An online *MUST* score calculator can be accessed at www.bapen.org.uk/screening-and-must/must-calculator (this link works with mobile devices)

A full version of the *MUST* screening tool can be found here: http://www.bapen.org.uk/pdfs/must/must-full.pdf

What do the different scores mean?

A score of 0: This indicates that the person is at low risk of malnutrition, requiring routine clinical care. People in care homes should continue to be reassessed on a monthly basis, whilst those in the community who are thought to be at risk (including those over the age of 75 years) should be reassessed annually.

A score of 1: This indicates a medium risk of malnutrition and observation is key. People with this score should document dietary intake for three days. If adequate, there is little concern but screening should be repeated at least monthly for people in a care home and at least every two to three months for people in the community. If dietary intake is inadequate, there is clinical concern over malnutrition. Consequently, local policy should be followed, goals set and overall nutritional intake should be improved and increased. Progress should be monitored and the person's care plan regularly reviewed.

A score of ≥ 2: This indicates a high risk of malnutrition and treatment is indicated unless it is considered detrimental or no benefit is expected from nutritional support (e.g imminent death). Please check for local Board / departmental policy. Goals should be set and overall nutritional intake should be improved. Progress should be monitored and the person's care plan reviewed on a monthly basis. Refer to local criteria for advice regarding when to refer to dietitian or nutritional support team.

Referral to dietetic services

Dietitians are skilled in assessing a person's diet, nutritional intake, appetite and ability to act on advice, taking into account underlying medical condition(s) and psychosocial circumstances. People with complex nutritional needs, e.g. renal disease, liver disease, poorly controlled diabetes and gastrointestinal disorders, may require specialist advice and should be referred to dietetic services.

Where ONS are required, a dietitian will ensure that the product is tailored to the patient's needs, likes and dislikes and may request specific ONS products from primary care prescribers. Many people with chronic disease experience diet related issues that may benefit from dietetic review not only to treat malnutrition but to advise on the dietary modifications to manage the disease or condition e.g. consequences of cancer and cancer treatments, COPD and other diet dependent conditions such as diabetes.

People can be offered food 1st advice whilst they are waiting to see a dietitian. People for whom ONS are a sole source of nutrition should also be referred to dietetic services without delay.

Advisory Committee on Borderline Substances (ACBS) criteria for ONS prescribing

The ACBS is responsible for advising on the prescribing of toiletries and foodstuffs. These products are only allowed to be prescribed on the NHS as medicinal products, under certain circumstances or for certain conditions. Oral nutritional supplements are borderline substances that are only considered to be medicinal products eligible for prescribing on the NHS where the person meets at least one of the criteria stated by the Department of Health.[8] People must meet at least one of the ACBS criteria listed below to be eligible for an NHS prescription of ONS. People who fall outside of these criteria should be advised about suitable food fortification and the option of purchasing suitable OTC ONS.

ACBS criteria are as follows:

- Short bowel syndrome
- Intractable malabsorption
- Pre-operative preparation of people who are undernourished
- Proven inflammatory bowel disease
- Following total gastrectomy
- Dysphagia
- Bowel fistulae
- Disease related malnutrition

In addition, some supplements and food products are prescribable for those receiving continuous ambulatory peritoneal dialysis (CAPD) and haemodialysis, or are specifically prescribable for individual conditions.[8] These products would normally be requested by a dietitian and should not be routinely started in primary care.

Home-made nourishing drinks and over the counter (OTC) ONS

Home-made nourishing drinks and over the counter (OTC) products e.g. Aymes® Retail, Complan® Milkshake or soups, Meritene Energis® (formerly Build Up) milkshakes or soups, Nurishment® milkshakes should be encouraged for people with a *MUST* score of ≥ 1. Appendix 1 contains further information on home-made nourishing drinks and OTC ONS and can be provided to people. Local pharmacies can also provide further information on OTC products.

ONS use for people in Care Homes / Institutions

Care homes and other institutions should provide adequate quantities of good quality food so that the use of unnecessary nutrition support is avoided.[10] ONS should not be used as a substitute for the provision of fortified food. Suitable snacks, food fortification and homemade milkshakes, smoothies and OTC ONS products can be used to improve the nutritional intake of those at risk of malnutrition. A repeat MUST score should be documented each month to confirm the ongoing clinical need for ONS.

In addition, for people in care homes, food fortifying care plans can be inserted into the individual's care plan to instruct staff regarding food fortification. Further information and advice on nutritional care plans and food fortification can be found on NHS Inform and the Care Inspectorate website. Useful resources can also be obtained from the British Dietetic Association website (https://www.bda.uk.com/foodfacts/home) and Nutrition and Diet Resources UK (NDR) (https://www.ndr-uk.org/).

ONS initiation during hospital admission

People who are initiated on ONS during hospital admission may not automatically require ONS on prescription once home. They may have required ONS whilst acutely unwell or during recovery from surgery, but once home and eating normally the need is often negated. It is therefore recommended that ONS are not prescribed following hospital discharge without first assessing need in line with these six stage guidelines. Where ONS are required post hospital discharge, the first line preferred primary care formulary product should be used and people should be provided with at least 1 week's supply on discharge with ongoing care and a clear nutritional monitoring plan in place.

ONS use in palliative care

Information adapted from the Macmillan Durham Cachexia Pack 2007 and NHS Lothian guidance.[11, 12]

In palliative care the person is diagnosed with a terminal disease, but death is not always imminent. People may have months or years to live and maybe undergoing treatment to improve quality of life. Nutrition screening and assessment is

appropriate. Early intervention could improve the person's response to treatment and potentially reduce complications. Following the six stages in this guideline is appropriate for this group, paying particular attention to Stage 2 - Assessment of Other Factors Affecting Nutritional Status.

A person's ability to eat or drink may be one of the first things to deteriorate in palliative care, or it could happen much later on when disease progression is very evident, so early discussions, advanced planning and an understanding of what that all means can make the process a lot easier for the individual and their family to deal with when it actually happens. Good multi-disciplinary team working, decision support, openness and transparency, and anticipatory care planning are all recommended.

If the person's condition is deteriorating and they may be experiencing increased symptoms such as pain, nausea and reduced appetite. The goal of nutritional management realistically may not be weight gain or reversal of malnutrition, but there should be a focus on quality of life. The nutritional content of the meal may no longer be of prime importance and people should be encouraged to eat and drink the foods they enjoy. Nutrition screening, weighing and initiating prescribing of ONS at this stage is not generally recommended. Avoid prescribing ONS for the sake of *doing something*. If ONS are initiated, as for all people prescribed ONS, ensure that appropriate monitoring of continued need is considered.

Nutritional management in the last days of life

In the last days of life, the person is likely to be bed-bound, very weak and drowsy with little desire for food or fluid. In the final days or weeks of life ONS will be of little, if any benefit at this stage and should not be initiated. The emphasis here is on maximising quality of life and weighing the potential benefit of prescribing ONS versus providing food that the person enjoys eating in their final days of life. The person should always remain the focus of care. Carers should be supported in consideration of the environment, social setting, food portion size, smell and presentation, and their impact on appetite. The aim should be to provide comfort for the person and offer mouth care and sips of fluid or mouthfuls of food as desired.

Health and social care professionals need to be aware of the potential tensions that may arise between people and carers concerning a person's loss of appetite. This is likely to become more significant through the palliative stages. People and carers may require support with adjusting and coping. Loss of appetite is a complex phenomenon that affects both people and carers.

Please also refer to the Scottish Palliative Care Guideline for further information (http://www.palliativecareguidelines.scot.nhs.uk).[12] Macmillan also provide e-learning on nutritional care in cancer (https://learnzone.org.uk/courses/course.php?id=38).[13]

ONS prescribing for people with a substance misuse issue

Information Adapted from NHS Grampian guidelines.[14]

Substance misuse is not a specified ACBS indication for ONS prescribing. The six stage guideline above applies to individuals with a substance misuse issue. People with a substance misuse issue may have poor appetite, weight loss and a nutritionally inadequate diet for a number of reasons including:

- Drugs themselves can cause poor appetite, reduction of saliva pH leading to dental problems, constipation and craving sweet foods.
- Lack of interest in food and eating.
- Poor memory.
- Chaotic lifestyles and irregular eating habits.
- Poor nutritional knowledge and skills.
- Low income, intensified by increased spending on drugs and alcohol.
- Homelessness or poor living accommodation.
- Poor access to food.
- Eating disorders with co-existent substance misuse.

Particular attention may be required to people's cooking skills, knowledge and facilities. Where appropriate, advice should be given on quick / easy / cheap meals and meal delivery companies. Consideration should also be given to referral to local cooking classes where available. Seeking support from individual healthcare workers or social workers (if they have these) may be of benefit.

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Nourishing Drink Ideas

It is important to drink enough fluid each day to keep well hydrated. The recommended amount is 6-8 cups daily. Fluids such as water, tea, coffee, fizzy juice, Oxo or Bovril count towards this but have little or no nutritional value. Milk, fruit juice and smoothies provide more nourishment and can help increase your nutritional intake.

- The nourishing drinks below are high in calories and are best consumed between or after meals so as not to affect your appetite.
- Avoid 'light' or low fat options as these will be less nutritious.
- All milk-based recipes can be made using non-dairy alternatives such as soya or nut milks, yogurts and milk powders if required but these are likely to be lower in calories.

These recipes are just ideas and can be changed to suit your own tastes – be creative!

Cold Milky Drinks

Homemade Milkshake

(300kcal, 17g protein)

- 200ml (1/3 pint) whole milk
- 20g (4-5 tsp) milkshake powder e.g. Nesquik, supermarket own-brand
- 30g (3 tbsp) dried milk powder

Put milkshake and milk powder into a glass then add milk gradually, stirring well.

Fruity Yogurt Drink

(400kcal, 15g protein)

- 300ml (1/2 pint) whole milk
- 1 pot thick & creamy yogurt
- 3 pineapple rings or 1 small banana

Blend ingredients using a liquidiser or hand blender.

Ginger Lime

(210kcal, 6g protein)

- 1 small pot natural yogurt
- 2 tbsp lime cordial
- 1 glass ginger beer

Mix yogurt with cordial in a glass then top up with ginger beer.

Honey Malt

(280kcal, 8g protein)

- 200ml (1/3 pint) whole milk
- 1 tbsp clear honey
- 1 scoop vanilla ice cream
- 1 heaped teaspoon malted milk powder (Horlicks, Ovaltine)

Dissolve Horlicks/Ovaltine in a little hot water, then add milk, honey and ice cream, and mix well. Chill or add ice to serve.

Iced Coffee

(240kcal, 8g protein)

- 200ml (1/3 pint) whole milk
- 1 scoop ice cream
- 2 teaspoons sugar
- Instant coffee to taste

Dissolve coffee in a little hot water, then add milk, ice cream and sugar, and mix well. Chill or add ice to serve.

This was produced by NHS GGC Dietitians in March 2017. Review date: March 2019

For further information Tel 0141 232 1702

Hot Milky Drinks

Nourishing Cup-a-Soup
(250kcal, 10g protein)

- 200ml (1/3 pint) whole milk
- 1 tbsp milk powder
- 1 packet cup-a-soup

Empty soup sachet into pan/mug, add milk and stir. Heat on hob or in microwave.

High Calorie Hot Chocolate
(230kcal, 7g protein)

- 200ml (1/3 pint) whole milk
- 1 tbsp drinking chocolate
- 2 tsp sugar

Add drinking chocolate powder and sugar to hot milk, or mix the ingredients in a mug and microwave to heat. Try adding cream for extra calories.

Cinnamon Spice
(160kcal, 7g protein)

- 200ml (1/3 pint) whole milk
- 1 tbsp golden syrup
- Pinch of cinnamon
- Pinch of mixed spice

Warm milk in microwave or pan. Add syrup, cinnamon and spice and mix well.

Milk Free Options*

Fortified Fruit Juice
(200kcal, 9g protein)

- 180ml fresh fruit juice
- 40ml undiluted 'High Juice' squash/cordial
- 10g (2 x 5g sachets) egg white powder

Add the cordial to the egg white powder a little at a time, mixing with a spoon (*do not whisk*). Then gradually mix in fruit juice. If these instructions are not followed, the drink could become frothy or form lumps. Combinations which can work well are blackcurrant squash with cranberry juice, orange squash with pineapple juice, and cranberry squash with orange juice.

Fruity Float
(180kcal, 1g protein)

- ½ glass fresh fruit juice
- ½ glass lemonade
- 1 tbsp sugar
- 1 scoop sorbet

Mix sugar into juices and add sorbet.

*these options may not be suitable for people with diabetes

Over the Counter Nutritional Supplements: When food is not enough

Eating well at every age helps keep our bodies strong. Sometimes eating enough food can be difficult, for example, during times of ill health or recovering from an operation. There are a number of nutritional support products available which are useful to boost dietary intake. These can be bought from pharmacies, online and at some supermarkets. Information on how best to use and prepare these products is available on the packets. It is advised to have no more than 2 servings per day.

For further advice speak to a health professional or see the Tayside Nutrition Website - http://www.knowledge.scot.nhs.uk/taysidenutrition/oral-nutritional-support.aspx.

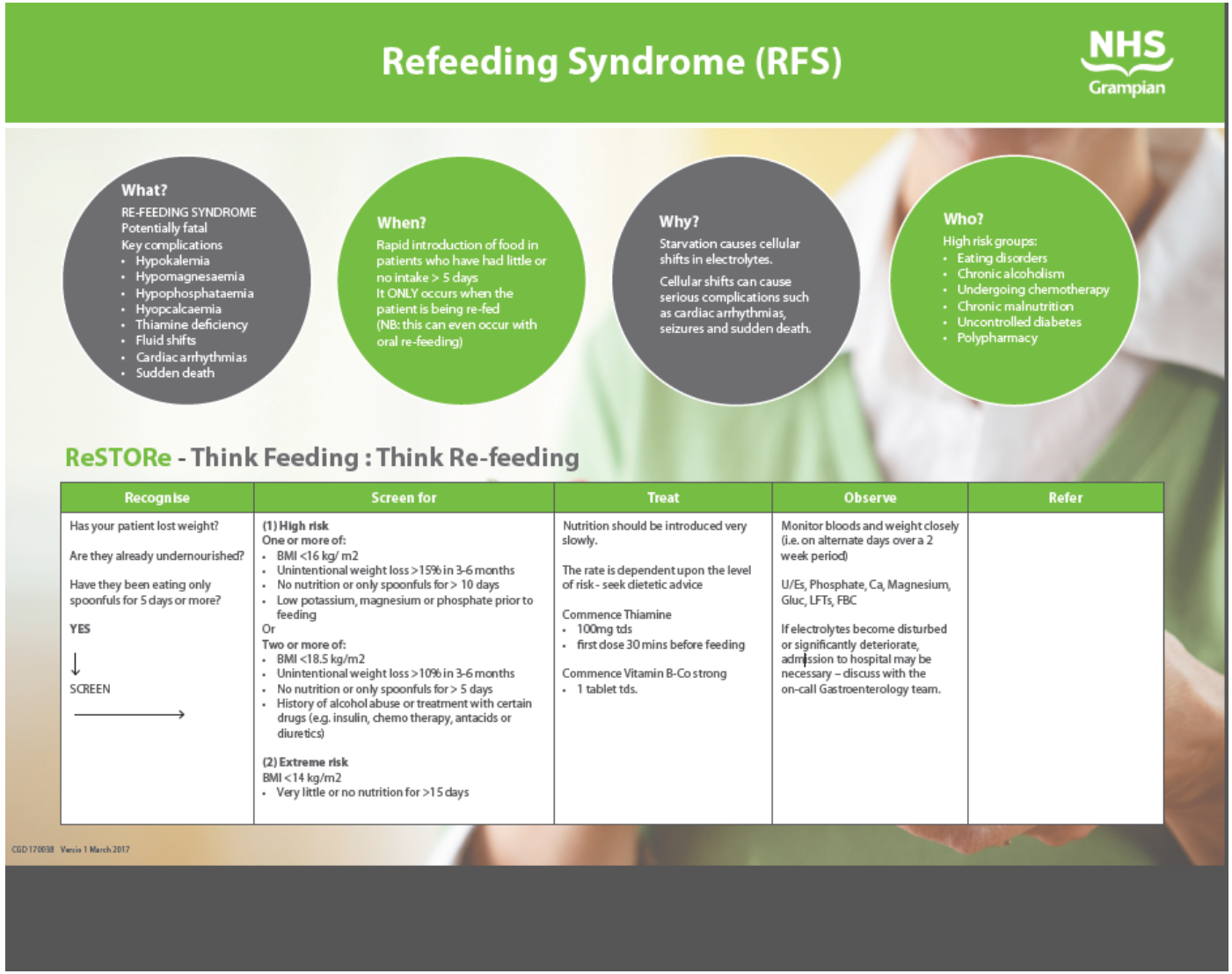
Nutritional Support Powdered Shake Products	Presentation and Flavours	*Recommended Retail Price (RRP)
AYMES®	1 box of 4 sachets Vanilla, banana, strawberry and chocolate flavours	£2.98
Complan®	1 box of 4 sachets Vanilla, banana, strawberry, chocolate flavours	£3.49
Complan® Original	1 box of 425g Neutral flavour	£5.19
Meritene ® Shake	1 box of 7 sachet s Strawberry or chocolate flavours	£6.99

Nutritional Support Soups	Presentation and Flavours	*Recommended Retail Price (RRP)
Complan® Soup	1 box of 4 sachets Chicken flavour	£3.49
Meritene ® Soup	1 box of 4 sachets Chicken and vegetable flavours	£5.99

Nutritional Support Ready to Drink	Presentation and Flavours	*Recommended Retail Price (RRP)
Meritene Ready to Drink	Individual 200ml bottles Strawberry or chocolate flavour	£1.99

*Recommended Retail Price (RRP) checked 07/03/2017 directly via companies

Appendix 2 – Re-feeding Syndrome



Refeeding Syndrome (RFS)

NHS Grampian

What?
RE-FEEDING SYNDROME
Potentially fatal
Key complications
- Hypokalemia
- Hypomagnesaemia
- Hypophosphataemia
- Hyopcalcaemia
- Thiamine deficiency
- Fluid shifts
- Cardiac arrhythmias
- Sudden death

When?
Rapid introduction of food in patients who have had little or no intake > 5 days
It ONLY occurs when the patient is being re-fed
(NB: this can even occur with oral re-feeding)

Why?
Starvation causes cellular shifts in electrolytes.
Cellular shifts can cause serious complications such as cardiac arrhythmias, seizures and sudden death.

Who?
High risk groups:
- Eating disorders
- Chronic alcoholism
- Undergoing chemotherapy
- Chronic malnutrition
- Uncontrolled diabetes
- Polypharmacy

ReSTORe - Think Feeding : Think Re-feeding

Recognise	Screen for	Treat	Observe	Refer
Has your patient lost weight? Are they already undernourished? Have they been eating only spoonfuls for 5 days or more? **YES** ↓ SCREEN →	**(1) High risk** One or more of: • BMI <16 kg/ m2 • Unintentional weight loss >15% in 3-6 months • No nutrition or only spoonfuls for > 10 days • Low potassium, magnesium or phosphate prior to feeding Or Two or more of: • BMI <18.5 kg/m2 • Unintentional weight loss >10% in 3-6 months • No nutrition or only spoonfuls for > 5 days • History of alcohol abuse or treatment with certain drugs (e.g. insulin, chemo therapy, antacids or diuretics) **(2) Extreme risk** BMI <14 kg/m2 • Very little or no nutrition for >15 days	Nutrition should be introduced very slowly. The rate is dependent upon the level of risk - seek dietetic advice Commence Thiamine • 100mg tds • first dose 30 mins before feeding Commence Vitamin B-Co strong • 1 tablet tds.	Monitor bloods and weight closely (i.e. on alternate days over a 2 week period) U/Es, Phosphate, Ca, Magnesium, Gluc, LFTs, FBC If electrolytes become disturbed or significantly deteriorate, admission to hospital may be necessary – discuss with the on-call Gastroenterology team.	

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