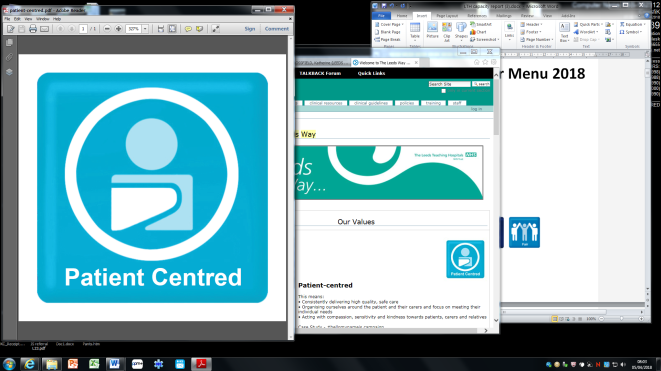


**Leeds Teaching Hospitals Trust**

**Nutrition Capacity Report**

Spring Summer 2024



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June 2024

## Summary

The risk of malnutrition is widespread in both the community and hospital, and is known to result in poorer patient outcomes in many areas. This report analyses Leeds Teaching Hospital NHS Trust’s (LTHT) aim to provide nutritious food and optimal hydration for all service users in line with current national guidance.

There are many local and national documents providing legislation and guidance for food provision within care settings, which focus on appropriate nutrition and hydration for all service users. The BDA Nutrition and Hydration Digest(1) provides a guide to menu planning and analysis, which has been utilised in the production of this report.

This analysis demonstrates that the current LTHT menu is capable of exceeding the recommended targets for energy and protein for both nutritionally well patients and nutritionally vulnerable patients. There is scope for further development within the current menus and the recommendations should be considered by the wider catering team for on-going menu development.

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## 1.0 Introduction

*‘Menus must have the capacity to meet all nutritional needs and…should be capable of providing the nutrient standards for both nutritionally well and nutritionally vulnerable adults‘ (1)*

This report analyses the nutritional content of the Leeds Teaching Hospitals NHS Trust Spring Summer 2024 menu offering. It provides information on the nutritional capacity of the current menu demonstrating the level of compliance with UK standards for nutrition in care settings as required by the Hospital Food Standards Panel Report (2). This report considers the capacity of the Core menu to meet the needs of nutritionally well and nutritionally vulnerable patients. It also analyses the texture modified IDDSI menus.

‘Nutritionally well’ - normal nutritional requirements and normal appetite or those with a condition requiring a diet that follows healthier eating principles

‘Nutritionally vulnerable’ - normal nutritional requirements but with poor appetite and/or unable to eat normal quantities at mealtimes; or with increased nutritional needs(1)

## 2.0 Background

‘Malnutrition is a state of nutrition in which a deficiency or excess (or imbalance) of energy, protein and other nutrients causes measurable adverse effects on tissue/body form (body shape, size and composition) and function and clinical outcome’*(*1).

Food provision is essential to the prevention and treatment of malnutrition. As highlighted by BAPEN, 38% of people in hospital are at risk of malnutrition(3).

Leeds Teaching Hospitals NHS Trust (LTHT) completes the Malnutrition Universal Screening Tool (4) for all adult patients on admission to identify high risk individuals and makes recommendations on how to maintain or improve their nutritional status. Unfortunately, all too often nutritious food remains uneaten in hospitals and care settings, but research suggests that if any necessary additional support, for example physical support, is provided an adequate nutritional intake can be met via ‘good food’ (5).

This nutrition capacity report provides an update to the previous LTHT nutrition capacity report in Spring Summer 2021(6).

At the last nutrition capacity report, Tillery Valley Foods (TVF) were the main supplier of frozen main meals to LTHT. They went into administration in May 2023.

Due to the closure of TVF and a short term cease in production from Simply Food Solutions (SFS), there have been many changes to menus at LTHT in the past 18 months. We have moved all TVF items to Apetito, and SFS are now back in production. This has allowed us to increase the variety of our menus back to our standard level of a 2-week cycle, although it should be noted there were multiple urgent menu changes and LTHT temporarily moved to a 7-day cycle, out of necessity. At this time, the purchase of frozen main meal items at LTHT moved to Apetito, with the continued ability to order special items from other frozen suppliers as necessary.

When developing the Spring-Summer 2024 menu there has been a strong awareness of financial constraints. Items have been changed and swapped, but with the lowest possible impact on palatability of products, patient nutritional intake and patient mealtime experience.

The menu layout and fonts have been updated with in line with accessibility guidance.

## 3.0 Nutritional Content of Menus

LTHT continue to aim for two menu changes per year; Spring/ Summer and Autumn/ Winter. Food in the hospital setting should be patient focused with consideration of dietary need and patient preference(7). The products used are assessed against the BDA nutritional targets before being taste tested by a staff and service user group. For this menu change taste testing was completed in a variety of settings and locations. The tasting sessions included both staff and patients.

The nutritional content of all products used within the Trust is recorded on a ‘Nutrition and Allergens’ spreadsheet, which is accessible on the LTHT intranet. For ease of use, the products are listed according to menu and course. The nutrition information is taken from product specifications, provided by suppliers. If a product specification is not available, for example a fresh fruit product, the data is taken from McCance & Widdowson’s The Composition of Foods(8). The information requested from all suppliers includes:

* Energy (kcals and kJ)
* Protein (g)
* Carbohydrate (g)
  + Carbohydrates, of which sugars (g)
  + Added Sugar (g)
* Fat (g)
  + Saturated Fats (g)
  + Mono-unsaturated (g)
  + Poly-unsaturated (g)
* Fibre (g)
* Sodium (mg)
* Salt (g)
* Calcium (mg)
* Iron (mg)
* Potassium (mg)
* Phosphate (mmol)

The full nutritional profile, as above, is not always available from suppliers. The mandatory nutrition declaration includes; energy value (in kJ and kcal), fat content, saturates, carbohydrate, sugars, protein and salt (all in grams). The voluntary declaration of supplementary nutrients includes; mono-unsaturates, polyunsaturates, polyols, starch, fibre, vitamins and minerals. When some specific micronutrient information is not available and decisions need to be made regarding specific menus, for example potassium content on the renal menu, the ingredient list is used to identify good or poor sources of micronutrients.

The above information is used to produce carbohydrate content tables for individuals who carbohydrate count to match insulin. This was originally produced with the Think Glucose team and reflects the DAFNE values.

## 4.0 Dietary Coding

Dietary coding should be displayed to enable patients to make informed dietary choices while in hospital by highlighting dishes suitable for their specific requirements (1). LTHT code all standard menus in line with BDA advice identifying easy to chew, vegetarian, higher energy and healthier choices. LTHT also display a coding for gluten free and vegan products, from the optional BDA dietary codes. See below for the dietary coding information provided to all patients on the menus.

**KEY TO DIETARY CODES:**

♥ **Healthier Choices** are lower in fat, salt and sugar and are suitable if you have been advised to follow a “healthier diet” for example for your diabetes or for your heart health or if you are trying to lose weight

**↑ Higher Energy** items are suitable if you have a small appetite or require food high in energy due to your illness, weight loss or surgery

**EC**  Foods which are softer and **easier to chew** (suitable for those on level 7 textured

diet)

**V Vegetarian** items are free from meat, poultry, fish and gelatine.

**Vg Vegan** if you follow a Vegan diet

**GF Gluten Free** if you follow a gluten free diet.

June 2024

**Other Menus, including Cultural & Special diets, are available please ask the ward staff**

Every care is taken to ensure allergen integrity of our food, however we don’t have allergen free zones and our food may be handled where other allergens are present. Please ask your ward housekeeper if you have any specific concerns, allergen information can be viewed on LTHT web site:

[www.leedsth.nhs.uk/patients/staying-hospital/catering/](http://www.leedsth.nhs.uk/patients/staying-hospital/catering/)

## 5.0 Allergens

Legislation was released in December 2014 which made it a mandatory requirement for 14 allergens identified by the EU as most likely to cause harm, to be made known to consumers. This legislation relates to any pre-packed or non-prepacked food and/or beverage items. The 14 declarable allergens are:

1. Cereals including gluten
2. Crustaceans
3. Eggs
4. Fish
5. Peanuts
6. Soya
7. Milk
8. Nuts (almonds, hazelnuts, walnuts, cashews, pecan, brazil nuts, pistachio, macadamia)
9. Celery
10. Mustard
11. Sesame seeds
12. Sulphur dioxide
13. Lupin
14. Molluscs

Information on the 14 declarable allergens of all products used on the inpatient menus within the Trust is accessible on the LTHT intranet and in an allergen folder on each ward. The format of this information was updated in 2023 and now includes an ingredient list for all individual products.

LTHT are fully complaint with Natasha’s Law, with our in-house produced and packaged sandwiches labelled with ingredients and allergens.

## 6.0 Menus:

Patients are provided with three meals a day, milk for drinks and snacks as clinically indicated. Patients who are nutritionally well are provided with biscuits between meals, whereas patients who are nutritionally vulnerable are provided with a menu of high energy and high protein snacks to choose from.

## Breakfast

Breakfastis continental style and a standard breakfast offers: Fruit juice, a variety of hot drinks, cereal or porridge and wholemeal or white toast with butter or sunflower spread and preserves.

## Core menu

The core menu for lunch and evening meals is the most widely used across the trust for adults and children, accounting for approximately 85% of our menu uptake. The core menu has the option to have smaller portions supplemented with snacks as needed.

At lunchtime the seven-day cycle consists of a three course ‘bistro’ style menu with a nourishing soup or fruit juice for starter, a variety of hot and cold options (including omelettes, jacket potatoes with various toppings, salad meals, sandwiches and a daily choice of hot options including quiches, vegetable burgers and beans on toast) with a choice of side dishes. The desserts include ice cream, cake and fruit, and can be served with custard.

The Core evening menu is a two course meal on a 14 day cycle. There are four main hot choices, which include gluten free, easy chew and vegetarian options, with side dishes of starchy carbohydrates and / or vegetables. The newly introduced fourth choices are a lighter option for those who desire, for example, beans on toast, omelette or a vegan sausage roll all served with side dishes. The desserts offer a choice of a hot dessert with or without custard, a milk pudding, fruit, yogurt or cheese and crackers. Weekends provide an offering of fish and chips on Fridays. Saturday evenings provide a curry option. The Sunday Dinner roast meat alternates between roast pork and roast chicken in gravy.

LTHT have continued to avoid the use of processed meats across our menus. This has in turn led to the continued work to source and use vegetarian and vegan options.

At this menu change, LTHT have increased the number of hot desserts produced in house. These are now available at every evening meal. These desserts currently include chocolate or fruit based sponges and a variety of fruit crumbles, which can be served with hot custard to meet the higher energy coding as per the BDA Digest(1).

## Alternative and Therapeutic Menus

Patients requiring specialist therapeutic diets should be catered for via an a la carte menu, so as not to limit choice for other patients (1). Being a large trust, LTHT has a number of alternative and special request menus. These are mainly a la carte (which are identical for lunch and evening meals) and include texture modified, children’s alternative, religious and cultural menus.

The special menus which are available but not assessed for nutritional content in this report are, listed in alphabetical order:

* A&E TCI Menu
* African Caribbean
* Children’s alternative
* Chyle Leak
* Gluten free
* GvHD (graft vs host disease)
* Ketogenic
* Kosher
* Low allergen
* Low Iodine
* Low Potassium
* Missed Meal
* Multicultural
* Renal dialysis day patients
* Vegan

LTHT also launched a new menu in the Autumn Winter 2023-2024 cycle; Level 7 Easy Chew. This was created alongside speech and language therapists to provide easy chew options for patients who may have some difficulty chewing, but do not have any increased risk of choking.

In addition to the above menus are a range of ‘knowledge builders’ and ‘Choosing from the Menu…’ sheets for use at the ward level. These offer advice for staff surrounding dietary restrictions and choices that some patients may follow and can be found within the Ward Catering Support Information folders on every ward.

## 7.0 Nutritional Analysis

It should be noted that the results from this analysis are reliant on patients managing full portions. The food must therefore be appealing, well presented, appropriate for dietary preferences and appetising to encourage even the most nutritionally vulnerable patients to actively participate in meal times.

The BDA Digest suggests three days are selected at random and analysed for minimum and maximum nutritional provision (energy and protein). These days should include a weekend day. To provide the most robust analysis, this report has analysed the minimum and maximum energy choices for every day of the 14 day Core menu cycle. The nutritional targets provided by the BDA(1) are shown in table 3, table 4 and table 5 below.

LTHT operates a hybrid menu of cyclical menu hot options and a la carte options (the same options that are available every day). The BDA recommend that these are analysed separately. This is to avoid skewing results. For analysis of the a la carte options on the current LTHT menu please see section 7.4.

|  |  |  |
| --- | --- | --- |
| **Nutrient (/day)** | **Nutritionally Well** | **Nutritionally Vulnerable** |
| **Energy (kcal)** | **1840 – 2772** | **1840 – 2772** |
| **Protein (g)** | **56\***  **(\*For females in the same age bracket the RCCI is 45g)** | **79 - 92** |

**Table 3: Daily nutrition standards for adults (1)**

|  |  |  |
| --- | --- | --- |
| **Complete Meal Targets (Starter + Main + Dessert) for midday and evening meals** | **Nutritionally Well** | **Nutritionally Vulnerable** |
| **Energy (kcal)** | **500** | **800** |
| **Protein (g)** | **15** | **27** |

**Table 4: Nutrition targets for menu planning (1)**

|  |  |  |
| --- | --- | --- |
| **Menu component** | **Energy (kcal)** | **Protein (g)** |
| **Starter soup (nourishing soup)** | **100** | **3** |
| **Main meal soup (fortified soup)** | **200** | **7** |
| **Main course** | **300** | **10** |
| **Sandwich** | **300** | **10** |
| **Salad** | **300** | **10** |

**Table 5: Minimum nutrition targets for specific menu components (1)**

## 7.1 Fixed values

The BDA Digest(1) refers to fixed and variable values when analysing menu capacity. The fixed values include; breakfast, 2 daily snacks and 400ml of milk for drinks.

## 7.1.1 Breakfasts

The breakfasts for nutritionally well and nutritionally vulnerable patients within this report were calculated from the food provision advised by the BDA(1). The same breakfasts are used throughout the report for ease.

The example breakfast for nutritionally well patients includes: fruit juice, cereal, semi-skimmed milk, 1 slice of toast with butter and jam. This provides a total of 456kcals and 11.4g protein, which meets the targets of 400kcals and 10g protein.

The breakfast selection made for a nutritionally vulnerable patient’s breakfast consists of: fruit juice, porridge, 1 slice of toast with butter and jam. This provides a total of 516kcals and 13.9g protein per day. The porridge pot is not a fortified porridge. A cooked breakfast is not available from inpatient catering services. Although this breakfast is 5% lower in energy and 22% lower in protein than the target energy content (545kcals and 18g protein), this loss in nutritional content is accounted for in the increased nutritional content of the snacks and main meal menu options.

These figures are used for all subsequent menu analysis when breakfast is considered.

## 7.1.2 Snacks

A minimum of 2 daily snacks is recommended(1). When analysis is being completed, the following recommendations were adhered to:

* Minimum energy and protein (aimed at nutritionally well patients): use the total energy and protein for the two snacks with the lowest amount of energy. At present, this is the small packs of fruit shortcake and ginger nut biscuits.
* Maximum energy and protein (aimed at nutritionally vulnerable patients): use the total energy and protein for the two snacks with the highest amount of energy. At present, this is the cheese and crackers and the cake of the day, for which the average value was taken.

## 7.1.3 Milk

As per the BDA recommendations, patients are provided with 400ml milk, plus an additional 100ml milk with cereal. The milk used for this analysis was semi-skimmed milk for nutritionally well patients and whole milk for nutritionally vulnerable patients.

## 7.2 Nutritionally Well Choices

Table 6 shows the energy (kcal) and protein (g) content of the minimum realistic choices for a patient choosing from the Core menu. The table shows the minimum nutritional content of each day, which includes the fixed values (breakfast, snacks and milk) and variable values (3 course lunch and 2 course evening meal).These lower energy choices would be recommended for ‘nutritionally well’ individuals with certain conditions, such as; hypertension, diabetes or cardiovascular risk. These service users may need a diet lower in salt, sugar or fat. The healthier choices should provide 1840kcals and 56g protein over the course of the day (table 3). The table also demonstrates the percentage of both energy and protein targets which have been met by this current menu offering.

It should be noted that these menu capacity figures are based on 100% consumption; ward staff and dietitians need to use food record charts to analyse the actual intake of individual patients.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Energy (kcal)** | **Target energy (kcals)** | **Percentage of energy target met (kcals)** | **Protein (g)** | **Target protein (g)** | **Percentage of protein target met (g)** |
| Monday | 1947 | 1840 | 106% | 67.4 | 56 | 120% |
| Tuesday | 2102 | 1840 | 114% | 76.7 | 56 | 137% |
| Wednesday | 2011 | 1840 | 109% | 65.8 | 56 | 118% |
| Thursday | 1898 | 1840 | 103% | 66.7 | 56 | 119% |
| Friday | 1902 | 1840 | 103% | 64.6 | 56 | 115% |
| Saturday | 2021 | 1840 | 110% | 62.0 | 56 | 110% |
| Sunday | 2006 | 1840 | 109% | 72.0 | 56 | 128% |
| Monday | 1902 | 1840 | 103% | 66.2 | 56 | 118% |
| Tuesday | 2011 | 1840 | 109% | 76.5 | 56 | 136% |
| Wednesday | 1998 | 1840 | 109% | 59.5 | 56 | 106% |
| Thursday | 1896 | 1840 | 103% | 63.3 | 56 | 113% |
| Friday | 1891 | 1840 | 103% | 60.1 | 56 | 107% |
| Saturday | 2000 | 1840 | 109% | 68.1 | 56 | 121% |
| Sunday | 1994 | 1840 | 108% | 73.0 | 56 | 130% |
| **Average** | **1970** | 1840 | **107%** | **67.2** | 56 | **120%** |

**Table 6: Minimum capacity analysis for cyclical options from AW2023 Core menu**

Table 6 demonstrates the nutritional targets for nutritionally well patients for both energy and protein can be met across every day of the 14 day menu cycle. This menu cycle is in excess of the minimum requirements for both energy and protein content for nutritionally well patients.

## 7.3 Nutritionally Vulnerable Choices

High energy choices would be recommended for ‘nutritionally vulnerable’ individuals, for example, those who have lost weight, have a suboptimal BMI or have additional energy and protein needs. The high energy choices should provide 2772kcals and 79 - 92g protein over the course of the day (table 3). Table 7 summarises the maximum energy and protein content of the core menu, based on realistic choices. The table also demonstrates the percentage of both energy and protein targets which have been met by this current menu offering. The Digest recommends a hospital menu should be capable of providing protein intake at 1.2g/kg body weight per day for a 66- 77kg individual. This is an increase compared to the previous Digest, which is due to the increased accuracy of the weight range used and the increased protein target/kg body weight/day to ensure menus have the ability to meet most patient’s needs. It can be presumed that those who require a protein intake above this level (up to 1.5g protein/kg/day) will be under the care of a specialist dietitian to help them meet this need(1). A protein target of 85.5g has been used to calculate the percentage of protein target met, as this is the mid-point of the target range.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Energy (kcal)** | **Target energy (kcals)** | **Percentage of energy target met (kcals)** | **Protein (g)** | **Target protein (g)** | **Percentage of protein target met (g)** |
| Monday | 3256 | 2772 | 117% | 98.5 | 79 – 92 | 115% |
| Tuesday | 3223 | 2772 | 116% | 96.0 | 79 – 92 | 112% |
| Wednesday | 3192 | 2772 | 115% | 92.9 | 79 – 92 | 109% |
| Thursday | 3218 | 2772 | 116% | 92.2 | 79 – 92 | 108% |
| Friday | 3333 | 2772 | 120% | 97.0 | 79 – 92 | 113% |
| Saturday | 3458 | 2772 | 125% | 88.4 | 79 – 92 | 103% |
| Sunday | 3183 | 2772 | 115% | 90.4 | 79 – 92 | 106% |
| Monday | 3168 | 2772 | 114% | 98.8 | 79 – 92 | 116% |
| Tuesday | 3159 | 2772 | 114% | 92.0 | 79 – 92 | 108% |
| Wednesday | 2992 | 2772 | 108% | 87.1 | 79 – 92 | 102% |
| Thursday | 3251 | 2772 | 117% | 88.7 | 79 – 92 | 104% |
| Friday | 3245 | 2772 | 117% | 88.2 | 79 – 92 | 103% |
| Saturday | 3471 | 2772 | 125% | 99.0 | 79 – 92 | 116% |
| Sunday | 3118 | 2772 | 112% | 88.7 | 79 – 92 | 104% |
| **Average** | **3233** | 2772 | **117%** | **93.0** | 79 – 92 | **108%** |

**Table 7: Maximum capacity analysis for cyclical options from AW2023 Core menu**

The energy and protein targets for nutritionally vulnerable patients (table 7) are exceeded by the Core menu. Providing additional energy and protein in comparison to the recommended nutritional targets should be beneficial to nutritionally vulnerable patients, as even if they do not manage the full served portions, they could still receive a significant energy and protein intake.

## 7.4 A la carte options

The a la carte options have been analysed as per the BDA recommendation of the average values of the 3 lowest energy options on the Core menu for the starter, main course and dessert at a meal sitting and the 3 highest energy a la carte options on the Core menu, in comparison to the recommended targets (table 8).

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Energy (kcal)** | **Target energy (kcals)** | **Percentage of energy target met (kcals)** | **Protein (g)** | **Target protein (g)** | **Percentage of protein target met (g)** |
| Nutritionally Well | 1843 | 1840 | 100% | 61.1 | 56 | 109% |
| Nutritionally Vulnerable | 3513 | 2772 | 127% | 89.5 | 79-92 | 105% |

**Table 8: Maximum and minimum energy and protein content of the a la carte options on the Core menu in SS2024, in comparison to the BDA nutrition targets.**

BDA guidelines state that sandwiches may be provided as an alternative to a hot main meal, but they need to be able to provide the same minimum nutrition targets for a complete main meal (starter and desserts included where applicable)(1). Table 8 demonstrates the a la carte options on the Core menu are able to meet the nutritional targets for both nutritionally well and nutritionally vulnerable patients, as shown in table 3.

It should be noted that if a patient regularly chooses a plain ham sandwich and piece of fruit on an evening, they are likely to fall below their nutritional requirements as there are not side dishes on offer alongside a sandwich on an evening. However, this is not expected to be a regular, realistic choice for an individual.

## 7.5 Finger Foods

The finger food menu offers patients the opportunity to maintain their independence if they are physical able to feed themselves, but unable to use cutlery, either short or long term. All items on this menu are chosen with the specific intention of patients being able to avoid using cutlery. This menu includes soup as a starter which will be served in a cup alongside a bread roll, main courses, desserts and snacks. For the analysis of the minimum and maximum nutritional content a balanced diet has been considered and therefore a mixture of protein, carbohydrate and vegetables have been chosen for each meal, even if this does not result in the highest options being chosen.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Energy (kcal)** | **Target energy (kcals)** | **Percentage of energy target met (kcals)** | **Protein (g)** | **Target protein (g)** | **Percentage of protein target met (g)** |
| Nutritionally Well | 1926 | 1840 | 104% | 71.4 | 56 | 128% |
| Nutritionally Vulnerable | 3468 | 2772 | 125% | 83.7 | 79-92 | **98%** |

**Table 9: Maximum and minimum energy and protein content of the Level 7 easy chew menu, in comparison to the BDA nutrition targets**

The finger food menu is shown to exceed the energy and protein targets for the nutritionally well population (Table 9). In relation to nutritionally vulnerable patients, the energy target is exceeded and the protein provided is above the lower end of the range, although it is slightly short of the median value. If a patient was struggling to meet their needs and needed additional protein to meet the mid-point of the protein target range, they could be advised on higher protein items available rather than choosing the vegetable option with every meal.

## 7.6 Texture Modified

The texture modified menus at LTHT are in line with the IDDSI framework and offer starters, main meals, desserts and snacks at an appropriate texture for patients with swallowing difficulties. The average energy and protein content of the level 4, 5 and 6 menus are all above the minimum required for a main meal and dessert, but the protein content of the maximum energy dishes on the level 4 menu and level 6 menu are demonstrated to not meet the median protein target for a nutritionally vulnerable patient for the full day offering (table 10). However, it should be noted these results are only a maximum of 2.4g protein below the median number (85.5g) in the recommended range, with the median number being used as per all other analysis in this report. These menus are shown to exceed the lowest protein content target (79g). Nutritionally vulnerable patients choosing from these menus should be offered advice regarding the nutritionally dense options (labelled as higher energy) on each texture modified menu.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Energy (kcal)** | **Target energy (kcals)** | **Percentage of energy target met (kcals)** | **Protein (g)** | **Target protein (g)** | **Percentage of protein target met (g)** |
| Level 3 Minimum | 982 | 1840 | ***53%\**** | 50.2 | 56 | ***89%\**** |
| Level 3 Maximum | 1004 | 2772 | ***36%\**** | 54.5 | 79-92 | ***64%\**** |
| Level 4 Minimum | 2188 | 1840 | 119% | 76.4 | 56 | 136% |
| Level 4 Maximum | 2776 | 2772 | 102% | 83.1 | 79-92 | ***97%*** |
| Level 5 Minimum | 1961 | 1840 | 107% | 89.3 | 56 | 160% |
| Level 5 Maximum | 2809 | 2772 | 101% | 87.6 | 79-92 | 102% |
| Level 6 Minimum | 2024 | 1840 | 110% | 77.4 | 56 | 138% |
| Level 6 Maximum | 2819 | 2772 | 102% | 83.3 | 79-92 | **97%** |

**Table 10: Maximum and minimum energy and protein content of the IDDSI compliant texture modified menus available at LTHT.**

\*All patients on a level 3 diet (liquidised) within LTHT will need to be under the care of a dietitian as it is expected they will need further nutritional support in the form of prescribed oral nutritional supplements or enteral feeding to meet their full nutritional needs.

## 7.7 Religious and Cultural Menus

These menus have not been subject to change since the previous nutrition capacity report and not re-analysed in this report. The nutrition capacity report in SS 2021 demonstrated the African Caribbean, Kosher and Multicultural menus were all providing appropriate energy and protein in relation to the targets. It should be noted, as no development has occurred with these menus, the average salt content continues to be above the recommended amount for the African Caribbean menu, with some dishes on all menus above the maximum recommended salt levels.

## 7.8 Level 7 Easy Chew Menu- New launch

A level 7 easy chew menu was launched in the Autumn Winter 2023- 2024 menu change. This menu provides appropriate easy chew starters, main meals and desserts and was produced with input from speech and language therapy to provide a level 7 IDDSI option to those patients who need it. It is based upon everyday foods which require less chewing, which maybe for a short term reason (eg- missing dentures) or a longer term clinical need. The menu is indicated for those who tire when chewing but are not at risk of choking.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Energy (kcal)** | **Target energy (kcals)** | **Percentage of energy target met (kcals)** | **Protein (g)** | **Target protein (g)** | **Percentage of protein target met (g)** |
| Nutritionally Well | 1999 | 1840 | 109% | 77.2 | 56 | 138% |
| Nutritionally Vulnerable | 2836 | 2772 | 102% | 92.6 | 79-92 | 108% |

**Table 11: Maximum and minimum energy and protein content of the Level 7 easy chew menu, in comparison to the BDA nutrition targets**

Table 11 demonstrates the level 7 easy menus ability to meet the targets for energy and protein for both the nutritionally well and nutritionally vulnerable patients who may choose items from this menu. This analysis takes into account the average value of the three highest and three lowest energy choices in comparison to the recommended values, as per the instruction in the BDA Digest(1).

## 8.0 Conclusion

The nutritional analysis of the LTHT menus for Spring Summer 2024 demonstrates compliance with the updated UK guidance from the BDA for nutrition in care settings (table 12). The current Core menu can exceed the nutritional requirements of both nutritionally well and nutritionally vulnerable service users, but this is dependent on an individual patient’s menu choices and the consumption of full meals.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **LTHT Core menu Energy (kcal)** | **BDA Digest Target energy (kcals)** | **Percentage of energy target met (kcals)** | **LTHT Core menu Protein (g)** | **BDA Digest Target protein (g)** | **Percentage of protein target met (g)** |
| Nutritionally Well | 1970 | 1840 | 107% | 67.2 | 56 | 120% |
| Nutritionally Vulnerable | 3233 | 2772 | 117% | 93 | 79-92 | 108% |

**Table 12: Demonstrating LTHT full compliance with Nutrition and Hydration Digest, 2023 (1)**

## 9.0 Recommendations

It should be noted that several recommendations from the previous report have been unable to be completed due to supplier and product issues. Therefore, several of the previous recommendations continue to need work.

**African Caribbean Menu (On-going recommendation)**

The salt content of the African Caribbean menu is highlighted as a concern in previous nutrition capacity reports. This has been a long standing issue secondary to a reduced choice of suitable items from suppliers when the menu was produced. This menu should be reviewed with alternative suppliers considered to allow both the cultural and nutritional needs of patients to be appropriately met. Unfortunately, this process has not been completed yet.

**Development of a new low allergen menu (On-going recommendation)**

The gluten free and low allergen menus are not discussed within this report but should be highlighted as a potential area for development. At present, the majority of the items on the low allergen menu are from multi-portion packs. This not only increases the pack waste and therefore cost of this menu, but also increases the risk of ward level cross contamination of allergens in this high risk group. A variety of suppliers have ranges that are free from the 14 declarable allergens and could be cooked and served without temperature probing, as per LTHT CCPs, both reducing pack waste and removing the risk of cross contamination at ward level. Investigation into these products and the development of a combined menu for gluten free and low allergen patients should continue to be considered.

**Sandwich Side Dishes (On-going recommendation)**

As highlighted in previous reports, there are not suitable side dishes to take with a sandwich on the evening menu. If a patient were to choose only a sandwich and piece of fruit on an evening meal, they may not meet their nutritional needs for that meal service. At lunchtime suitable side dishes are offered, so this problem is negated. A change of menu layout should be considered to provide the option of side dishes on an evening and increase the nutritional content of cold dishes on an evening.

**Higher protein code**

The updated BDA Digest(1) has introduced a new optional dietary code, for higher protein dishes. The introduction of this code should be considered at an upcoming menu change. The Food Services Specialist Group have provided a target date of May 2025 for this code to be used on menus in healthcare settings.

**Higher Energy Breakfast**

Although this nutrition capacity report demonstrates the LTHT menu comfortably exceeds the nutritional targets for both nutritionally well and nutritionally vulnerable patients for energy and protein, the higher energy breakfast offering is not in line with the BDA Digest recommendations. The BDA Digest(1) recommends for nutritionally vulnerable patients they should have the offering of cereals and toast, which LTHT does offer, but in addition there should also be full fat yogurts, cooked breakfast items, fortified porridge or drinks with milk powder. It should be noted that patients are still able to meet their nutritional needs as the current LTHT menu offers energy and protein above and beyond the targets at other times of the day, so this is not currently negatively impacting on patients’ nutrition, but this is an area where LTHT is not aligned with the Digest.

**Future Development**

The on-going development of menus, products and concepts within LTHT is crucial. The catering team should continue to work together to drive innovation, drawing on the knowledge of our front-line staff and other Trusts when appropriate. Patient comments and complaints should be carefully considered when future development is considered. Any development work that is completed should be widely and accurately disseminated both in facilities and the wider teams, including nursing and dietetics. This communication can take place via induction training, refresher training, bulletins, and patient safety days.

## References:

1 BDA (2023) The Nutrition and Hydration Digest. Improving outcomes through food and beverage services. 3rd edition

[BDA - The Nutrition and Hydration Digest](https://www.bda.uk.com/static/176907a2-f2d8-45bb-8213c581d3ccd7ba/06c5eecf-fa85-4472-948806c5165ed5d9/Nutrition-and-Hydration-Digest-3rd-edition.pdf) [Last accessed: 18/06/2024]

2 DH (2014) The Hospital Food Standards Panel’s Report on Standards for Food and Drink in NHS Hospitals.

[The Hospital Food Standards Panel’s report on standards for food and drink in NHS hospitals (publishing.service.gov.uk)](https://assets.publishing.service.gov.uk/media/5a806e1eed915d74e33fa61a/Hospital_Food_Panel_May_2016.pdf) [Last accessed: 18/06/2024]

3 BAPEN (2020) National Survey of Malnutrition and Nutritional Care in Adults.

[national-survey-of-malnutrition-and-nutritional-care-2020.pdf (bapen.org.uk)](https://www.bapen.org.uk/pdfs/reports/mag/national-survey-of-malnutrition-and-nutritional-care-2020.pdf) [Last accessed: 18/06/2024]

4 BAPEN (2011) Malnutrition Universal Screening Tool.

[Malnutrition Universal Screening Tool (bapen.org.uk)](https://www.bapen.org.uk/pdfs/must/must_full.pdf) [Last accessed: 18/06/2024]

5 NICE (2006) Nutrition Support for Adults: Oral Nutrition Support Enteral Tube Feeding and Parenteral Nutrition. CG 32.

[Overview | Nutrition support for adults: oral nutrition support, enteral tube feeding and parenteral nutrition | Guidance | NICE](https://www.nice.org.uk/guidance/cg32) [Last accessed: 18/06/2024]

6 Nutritional Capacity Analysis of the Adult Core Menus (Spring Summer 2021), LTHT

7 Department of Health and Social Care (2020) Report of the Independent Review of NHS Hospital Food.

[Report of the Independent Review of NHS Hospital Food (publishing.service.gov.uk)](https://assets.publishing.service.gov.uk/media/5f930458d3bf7f35e85fe7ff/independent-review-of-nhs-hospital-food-report.pdf) [last accessed 18/06/2024]

8 Finglas P.M., Roe M.A., Ounchen H.M., Berry R., Church S.M., Dodhia S.K., Farron-Wilson M & Swan G. (2015) McCance and Widdowson’s The composition of Foods, Seventh Summary Editition. Cambridge: The Royal Society of Chemistry.

## Other relevant resources:

International Dysphagia diet descriptors.

[IDDSI - IDDSI Framework](https://iddsi.org/framework/) [Last accessed 18/06/2024]

Ward Cancer Research Fund, Cancer Prevention Recommendations.

[Limit red meat and avoid processed meat - Cancer Prevention | World Cancer Research Fund (wcrf-uk.org)](https://www.wcrf-uk.org/preventing-cancer/our-cancer-prevention-recommendations/limit-red-meat-and-avoid-processed-meat/) [last accessed 18/06/2024]

Cancer Research UK

[Does eating processed and red meat cause cancer? | Cancer Research UK](https://www.cancerresearchuk.org/about-cancer/causes-of-cancer/diet-and-cancer/does-eating-processed-and-red-meat-cause-cancer?_gl=1*1c83vhg*_ga*MTcyODE4NTI0My4xNjk2NTAxNTEx*_ga_58736Z2GNN*MTcwNzQwMjkzOC4yLjEuMTcwNzQwMjk0NS42MC4wLjA.*_gcl_au*ODc4NzgzMzc1LjE3MDc0MDI5Mzg.&_ga=2.260077445.923624813.1707402939-1728185243.1696501511) [last accessed 18/06/2024]

SACN (2011) Iron and Health Report

[SACN Iron and Health Report - GOV.UK (www.gov.uk)](https://www.gov.uk/government/publications/sacn-iron-and-health-report) [last accessed: 18/06/2024]

BDA (2020). One Blue Dot. Eating Patterns for Health and Environmental Sustainability [one blue dot reference guide.pdf (bda.uk.com)](https://www.bda.uk.com/static/539e2268-7991-4d24-b9ee867c1b2808fc/a1283104-a0dd-476b-bda723452ae93870/one%20blue%20dot%20reference%20guide.pdf) [Last accessed: 18/06/2024]

Appendix 1**- Menu Assessment Checklist (1)**

|  |  |  |  |
| --- | --- | --- | --- |
| 1 | Potatoes, bread, rice, pasta and starchy carbohydrate | Yes | Comment |
| a | Is there a choice of higher and lower fibre cereals at breakfast? | ✓ | Example: Rice krispies vs Weetabix |
| b | Is there a selection of breads available? E.g. white, wholemeal and Gluten Free (GF) | ✓ |  |
| c | Does the menu contain a good variety of appropriate carbohydrate based sides that suits both the meals served and the patient group? | ✓ |  |
| d | Is there at least one carbohydrate based side available at each meal service? | ✓ |  |
| 2 | Fruit and vegetable |  |  |
| a | Is the total food offer including snacks, capable of providing at least 5 portions of fruit and vegetables a day? | ✓ | Fruit juices, vegetable or salad choices at each meal, fruit as dessert options. |
| b | Does the food offer include fresh fruit throughout the day, at main meals and as a snack option? | ✓ | Yes at main meals, but not as a standard item for patients as snacks. Possible to order for specific patients on D1 form. |
| c | Are a variety of fruit based desserts available on the menu? E.g. fruit crumble, fruit pie | ✓ |  |
| d | Does the menu offer 2 different vegetables or a vegetable and a side salad at each main meal? | ✓ |  |
| e | Is there an easy to chew vegetable at each main meal? | ✓ | Easy chew menu in place |
| 3 | Beans, pulses, fish, eggs, meat and other proteins |  |  |
| a | Is there a higher protein breakfast options available that is appropriate for the patient group? E.g. eggs, yogurt or fortified porridge | Some Areas | Ward based decision from ward requisition available on a small number of wards for hot breakfast items. Not routinely offered. Standard porridge, not fortified. |
| b | Is there an identified source of protein in all vegetarian and vegan meal choices? | ✓ |  |
| c | Does the menu provide 2 portions of sustainably sources fish every week, one of which being an oily fish? | ✓ | Daily mackerel salad.  White fish weekly |
| 4 | Dairy and alternatives |  |  |
| a | Is 400ml milk or dairy alternatives for drinks allocated per patient day? | ✓ | 50% of wards receive 400ml milk or more per patient bed per day. The wards not receiving this include ICUs, post surgical wards and HDUs when some patients will be NBM and unable to take milk. |
| b | Is there a range of milks/ dairy alternatives appropriate for the patient group available throughout the day? E.g. semi-skimmed milk, full fat milk and calcium fortified dairy alternatives | ✓ | Semi-skimmed and full fat milk available on wards, with ratio determined by clinical team in accordance with patient needs. Specific dairy alternatives available via D1 form. |
| c | Are milk-based desserts available at each main meal? E.g. Custard, rice pudding, yogurt | ✓ |  |
| d | Is additional milk available for nutritionally vulnerable patients? E.g. for milky drinks or for mixing appropriate supplements | ✓ | 1 pint whole milk available on the Red Tray Higher Energy Snack Menu or D1 Form |
| 5 | Oils and spreads |  |  |
| a | Is butter available? | ✓ | At breakfast |
| b | Is dairy alternative spread available? | ✓ | Throughout the day |
| c | Are standard preserves available? | ✓ |  |
| 6 | Drinks |  |  |
| a | Is chilled water available throughout the day? | ✓ |  |
| b | Are decaffeinated varieties of tea and coffee available? | ✓ |  |
| c | Is sugar free squash available? | ✓ |  |
| d | Are other drink options appropriate for the patient group available? E.g. malted milk, herbal teas, fruit teas | ✓ |  |
| 7 | Overall choice on standard menu |  |  |
| a | Does the menu cycle reflect the needs of the patient group? i.e. longer cycles for long stay patients | ✓ | 2 week menu in place. Patients can choose from any of the alternative menus, which can be beneficial to increase choice for long stay patients. |
| b | Does the menu follow the standard menu structure, outlined in Chapter 9, offering a variety of hot and cold meals at lunch and dinner and avoiding soup and sandwich only offer. | ✓ |  |
| c | Is there a higher energy choice available on the menu at each main meal? | ✓ |  |
| d | Is there a healthier eating choice each main meal? | ✓ |  |
| e | Is there an easy to chew choice at each main meal? | ✓ | L7 Easy chew menu in place, as well as easy chew options on the core menu |
| f | Is there a vegetarian or vegan choice available at each main meal? | ✓ |  |
| g | Are there vegetarian choices available, other than cheese and egg-based ones? | ✓ |  |
| h | Are pastry products available no more than once per mealtime or less? | ✓ |  |
| i | Is there adequate choice on the menu during the cycle with reasonable repetition for that patient group? | ✓ | Some repetition of chilled items (sandwiches and salad items). Limited repetition of main course options through the week. Some repetition on specific menus (eg- low K+ vegetarian options). |
| 8 | Other Menus |  |  |
| a | Is there a menu(s) capable of catering for different therapeutic diets? E.g. texture modified, renal suitable, allergen free | ✓ |  |
| b | Is there a menu(s) capable of catering for different religious or cultural groups? E.g. Halal, Kosher, Vegan | ✓ |  |
| c | Is there a menu(s) capable of meeting the needs of specific groups? E.g. children, mental health, maternity | ✓ |  |
| 9 | 24 Hour Provision |  |  |
| a | Is there an out of hours menu and process in place for cooking and delivering safe hot and cold meals out of regular service hours? | ✓ | Sandwich based meal offering for Trust.  Missed meal picnic boxes for children’s wards.  Hot options available via A&E menu |
| b | Are suitable meals for special diets available on the out of hours menu? E.g. allergen free, texture modified, vegan | ✓ | Allergen free and vegan meals available on A&E TCI menu. |
| c | Is there a minimum of 7 drinks offered throughout the day to patients? | ✓ | Variety of beverages offered throughout the day.  Regularly refreshed water jugs available on patient tables. |
| d | Is there a minimum of 2 snacks per day that are appropriate for the patient group and their dietary needs? | ✓ | Red Tray snacks for those who are nutritionally vulnerable.  Biscuits for those who are nutritionally well. |