Appendix 5 (accessible)

of the **Nutrition and quality food standards for paediatric patients in Victorian public hospitals**

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| Appendix 5 of the **Nutrition and quality food standards for paediatric patients in Victorian public hospitals**.To receive this document in another format, phone 9096 9000, using the National Relay Service 13 36 77 if required.Authorised and published by the Victorian Government, 1 Treasury Place, Melbourne.© State of Victoria, Australia, Department of Health, March 2022 ISBN 978-1-76096-603-4 number (online/PDF/Word)Available from [the department’s website](https://www.health.vic.gov.au/hospitals-and-health-services/quality-safety-and-service-improvement) <https://www.health.vic.gov.au/hospitals-and-health-services/quality-safety-and-service-improvement>.(2110129) |
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Contents

[Appendix 5: Tools for menu revision (specific to the paediatric population) 5](#_Toc109341546)

[Hospital and patient information 5](#_Toc109341547)

[Minimum menu choice gap analysis 8](#_Toc109341548)

[Macro and micronutrient gap analysis 17](#_Toc109341549)

# Appendix 5: Tools for menu revision (specific to the paediatric population)

These tables are amended from the NSW Agency for Clinical Innovation’s [**Nutrition and mental health toolkit**](https://aci.health.nsw.gov.au/__data/assets/pdf_file/0008/257552/ACI_Nutrition_and_Mental_toolkit_guideline-web.pdf) <https://aci.health.nsw.gov.au/\_\_data/assets/pdf\_file/0008/257552/ACI\_Nutrition\_and\_Mental\_toolkit\_guideline-web.pdf>.

Note that these tools apply to children aged over 1 year.

## Hospital and patient information

Table 5.1: Site information

| Information required | Reasons/prompts |
| --- | --- |
| Date: Name of hospital:Name and role of person conducting the audit:Name of facility nutrition care committee: (dietitian, speech pathologist, nurse, quality representative, consumer representative, food service manager and food safety officer)Date of last menu review: | Evidence of:* compliance
* change over time
* governance
* collaboration
* quality improvement cycle
 |
| Type of facility (specialist paediatric hospital, metro, regional, subregional, rural):Number of paediatric overnight beds:Number of paediatric day beds: | Provides essential insight into paediatric patient numbers, which can help to inform the need for a paediatric-specific menu |

Table 5.2: Demographic information (request this information from your hospital ICT for the last 3 months)

| Information required | Reasons/prompts |
| --- | --- |
| Describe the number (or percentage) of admissions according to age groups | Helps identify the age groups for which the menu needs to cater  |
| Describe the average length of stay and lengths of stay more than 7 days according to age groups | Helps determine the length of the menu cycle and/or menu choice available on the short order menu |
| If there are multiple paediatric units:Which units recorded the longest admissions (more than 7 days)?Which units had the highest rates of admissions? | Helps determine the need to focus and provide more options to specific units / age groups |
| Describe any cultural or religious needs  | The menu needs to be culturally appropriate |
| What are the most common therapeutic diets the site(s) requires?  | Needs to be considered into menu design to ensure food/fluid items are available either on request or incorporated into the full menu |
| From this information, have you assigned an appropriate number of meal options (‘nourishing’, ‘vegetarian’, ‘cultural’ and ‘paediatric finger foods’)? | Helps ensure the menu reflects the needs of the population and provides goals for menu review |

Table 5.3: Food service information

| Information required | Reasons/prompts |
| --- | --- |
| Who is the food service provider (e.g. external provider, central production kitchen, internal food service department)? Who is responsible for providing all menu review information (e.g. nutritional breakdown, costing detail)?Who is the key contact for the food service provider at the site?Is there a food service dietitian (e.g. associated with a central production kitchen or external provider if not available through the hospital)? | Need to identify all stakeholders and ensure everyone works together to review the menu |

Table 5.4: Food service systems: menu design, production and delivery

| Information required | Reasons/prompts |
| --- | --- |
| How many hours/days in advance does the menu need to be completed? | Impact on forecasting, meal production and kitchen ordering Orders longer in advance have a negative impact on patient satisfaction, plate and production waste |
| What is the current length of the menu cycle?Is the current length of the menu cycle appropriate for the site?  | Do some units need different lengths?  |
| How is food delivered to consumers (e.g. bulk and plated at point of service, plated in the kitchen and tray service)?  | Potential practical considerations may arise |
| What is the type of food service at the facility (e.g. cook-chill, cook-fresh, cook-freeze, pre-packaged meals and/or combination)? | Impact on meal production, kitchen ordering, storage and stock levels Consideration for menu options/limitations (e.g. cook-chill works best with wet dishes but poorly with grilled/crispy meals) |
| Have recipes been analysed and ingredients documented (including documentation of allergens)? | Evidence of meeting:* nutritional profile for different meal options
* nutrient goals for specific age groups
* allergen management safety protocols
 |
| Are there other potential food service–related considerations for the site (e.g. BBQ days, assisted daily living kitchen, special events catering, cooking programs)? | Impact on kitchen ordering and possibly in revising the menu |

Table 5.5: After-hours service

| Information required | Reasons/prompts |
| --- | --- |
| Is there less than 14 hours between serving the last meal of the day and the first meal of the following day? | This is the recommended maximum timeframe and may affect food service and nursing staff |
| Do patients have access to food after hours (e.g. sandwiches, fruit, milk)? | Consider patients with admissions after hours or after a meal serviceConsider patients who miss a meal due to a procedure or nap |
| Does the site provide access to additional foods for patients who are hungry or require large serves?  | Consider younger patients in particular who have smaller, less predictable appetites and may require access to small snacks throughout the day and also teenagers who are experiencing growth spurts and require larger serves |

## Minimum menu choice gap analysis

Table 5.6: Minimum menu choice gap analysis

| Menu item | Serve size  | Minimum choice | Range of age-appropriate serve available | Nutrition Standards & menu design considerations | Meets the Standards (Yes/No)  | Minimum menu choice gaps identified |
| --- | --- | --- | --- | --- | --- | --- |
| **Fruit**Fresh, canned ordried | 1 medium banana, apple or orange2 small apricots, mandarins or kiwi fruits1 cup (150 g) diced/canned fruit 30–40 g dried (e.g. 4 prunes or PC sultanas) | 1/mealOffered at all meals  | 0.5–1 | Developmentally appropriate textureCut up where possible for younger children; canned fruit in natural juice (not syrup) or waterVariety at consecutive meals Local, seasonal and fresh preferred  |  |  |
| **Juice** | ~ 125 mL | 1/dayNot appropriate for the default menu | 1 | 100% fruit juiceNo added sugar1 per day maximum |  |  |
| **Hot cereal**Examples: porridge, semolina, congee | 120 g cooked weight | 1/breakfast meal | 0.5–1 | No added salt or sugar |  |  |
| **Cold cereal** Examples: muesli, corn flakes, wheat biscuits | 30–45 g | 2/breakfast meal | 1–2 | Cereals to contain ≤ 30 g sugar / 100 g≥ 1 cereal should contain at least 3 g fibre per serveHigher fibre option should be provided as defaultLarge (double) serves available for older teenagers  |  |  |
| **Milk for cereal** | PC serve ~ 140 mL | 2/breakfast meal | 1–2 PC | Children aged under 2 years only offered full cream milk Offer a choice of full cream and reduced fat milk to children aged over 2 years Soy milk on request with ≥ 100 mg calcium / 100 mL |  |  |
| **Protein at breakfast** Continental or traditional cooked | Examples:1 egg with toast soldiers1 egg with congee75 g baked beans on toastPancakes with fruit | 1/breakfast meal | 1–2 | Vegetables offered for variety**Note**: They can be counted towards dietary vegetable servesEggs must be well cooked to reduce risk of salmonellaNutrient profile:≥ 700 kJ per serve minimum≥ 5 g protein per serve minimumAim for ≤ 600mg sodium per serve maximum |  |  |
| **Bread**Toast/bread or bread roll | 30–45 gExamples: 1 slice bread1 bread roll  | 2/mealOffered at all meals  | 1–2 | Offer at least one choice of wholemeal or multigrain bread; white bread can be availableWholemeal or wholegrain bread should be the default choiceFor variety offer small bread roll, raisin bread, crumpets, English muffins, wraps, roti, naan breadNutrient profile:≤ 400 mg sodium / 100 g  |  |  |
| **Margarine** | PC serveMargarine ~ 10 g | 1/mealOffered at all meals with bread | 1-2 PC | Poly- or mono -unsaturated margarine is the default choiceButter (PC ~ 7 g) may be offered on request |  |  |
| **Spreads** | PC serve Honey ~ 13 gJam ~ 13 gVegemite ~ 5 gPeanut butter ~ 11 g | 3/breakfast meal | 1–2 PC  | Include a selection of jams, Vegemite and honeyPeanut butter and other nut spreads offered according to hospital allergy policyArtificially sweetened spreads are not offered |  |  |
| **Cold beverage – milk** | PC serve ~ 140 mL | 2/meal Offered 6 times over the day: twice at breakfast; once at all other meals and mid-meals | 1–2 PC  | Offer only full cream milk to children aged 1–2 years.Offer a choice of full cream and reduced fat milk to children aged over 2 yearsCalcium fortified soy milk should be available on request as an alternative to dairyNutrient profile (soy milk): ≥ 100 mg calcium / 100 mL minimum |  |  |
| **Sugar and sugar substitutes**  | PC serveSugar sachet ~ 4 g | Not available on the standard or default menu | 0 | Not available on the standard menuNot provided on default menuAvailable on requestSugar substitutes are not necessary  |  |  |
| **Soup**  | ~ 180 mL | 1 soup / day | 0.5–1 | Soups for young children are offered according to hospital policyA proportion of ‘nourishing’, ‘vegetarian’, ‘culturally diverse’, ‘easy-chew’ has been nominated according to hospital population needBroth can be offered as a fluid source and for appropriate therapeutic dietsVariety is maintained at consecutive meals‘Nourishing option’ nutrient profile:≥ 400 kJ per serve minimum≥ 5 g protein per serve minimumAim for ≤ 600 mg sodium per serve maximum |  |  |
| **Hot main meal** (lunch and dinner) | Plain cooked meat: Red meat 50 g minimum (beef, lamb, kangaroo) White meat 70 g minimum (pork, poultry)Fish 90 g minimum (fresh or canned)Portion sizes can vary; the onus is on meeting the specified nutritional profile | 4 hot dishes per day (2/meal) as per pre-determined local need | 0.5–1.5 | Variety of hot meals offered as per pre-determined hospital need including nourishing, vegetarian, paediatric finger food, easy-chew and culturally diverse options (one meal can incorporate different options) Include a variety of proteins (meat, fish, egg, tofu, legumes) and types of meals at consecutive meals and on consecutive daysOven-baked, grilled, or steamed cooking techniques used in preference to frying with oilA vegetarian option is available at every eating occasionFish is offered twice a weekNourishing option nutrient profile: ≥ 700 kJ per serve minimum≥ 10 g protein per serve minimumAim for ≤ 600mg sodium per serve maximumIf vegetarian main meals don’t meet the minimum protein per serve, ensure adequate protein is offered over the day (e.g. nourishing side dishes or mid-meals)Variable nutrient value nutrient profile:not specified; included for varietyVariable nutrient value should not comprise more than 20% of the menu |  |  |
| **Starch/grains** | Serve ~ ½ cup or 75–120 g cookedHot chips (60 g serve) | 1–2/meal Note: some mixed dishes do not require additional starch | 1–2 | Starch should match the main dishes (e.g. roast potato with roast meat)Variety is included within consecutive meals and on consecutive days A variety of grain dishes are offered to enhance menu cultural diversity and interestLower GI options are offered (e.g. basmati or doongara rice)Hot chips are only offered occasionally for variety |  |  |
| **Vegetables** | Serve ~ 75 g cooked weight or 1/2 cup | 2 different coloured vegetables with hot main meal offered twice per day | 1–2 | Vegetables should match the main dishesVariety is included with consecutive meals and on consecutive daysSeasonal vegetables are used where possiblePresentation and flavour of vegetables are enhanced (e.g. roasted/grilled, finger food options or with herbs and spices or sauces)Note: Soup and other mixed dishes with high vegetable content can contribute to the daily vegetable requirement |  |  |
| **Side salad or raw vegetables** | Serve ~ 1 cup raw vegetables (75 g) | 1/day | 1–2 serves | A minimum of 3 coloured vegetables provided within the saladOffer unsaturated fat PC salad dressingsRaw vegetables/salad can be offered as an alternative to cooked vegetablesSeasonal vegetables are used where possibleNote: Soup and other mixed dishes with high vegetable content can contribute to the daily vegetable requirement |  |  |
| **Condiments** | Gravy/sauce: according to the size of the meal | According to the dish | 0.5–1.5 | Gravy and/or sauces may be offered when deemed an appropriate accompaniment to a dish (e.g. roast meat and vegetables) |  |  |
| PC condiment/sauce | According to the dish | 1–2 | A range of condiments may be offered as an accompaniment to a dishCondiments should be offered to match the dish |  |  |
| PC serveSalt sachet = 1 g | Not available on the standard or default menu | 0  | Salt is not deemed necessary and shouldn’t be offered on the standard or default menu, but it may be available on request |  |  |
| **Sandwiches/****wraps** | 1 serve = 1 sandwich / wrapNourishing fillings:Egg × 1Cheese (20 g minimum)Lean meat / chicken / fish (50 g minimum)Hummus ~ 30 gFalafel ~ 50g | 2/day1 nourishing option / day minimum | 0.5–2 sandwich | A variety of sandwiches are offered at consecutive meals and on consecutive daysA variety of breads and wraps included (e.g. wholemeal, wholegrain, white, sourdough, roti.)Mono- or poly- unsaturated margarine, avocado or hummus are used as spreadsSandwiches made on wholemeal or wholegrain bread are the default choiceSandwiches are presented as wedges for a paediatric finger food optionSandwiches and wraps are toasted to improve acceptance/interestLarge (double) serve available for older childrenHalf sandwiches are offered to younger children and as a snack option for all patientsSandwiches are readily available on the ward for patient accessNourishing nutrient profile: 800 kJ per sandwich minimum8 g protein per sandwich minimumVariable nutrient value nutrient profile:not specified; included for variety |  |  |
| **Desserts** | Nourishing option:Portion controlled serve: 150g minimumCreamy yoghurt Dairy dessert (e.g. Fruche), custardVariable nutrient value optionPortion control serve:Ice cream 100 mL minimumJelly 110 g minimumPortion sizes can vary; the onus is on meeting the specified nutritional profile | 4/meal1 nourishing option / meal minimum | 2 | Offer a variety of nourishing desserts on consecutive daysNourishing nutrient profile:≥ 500 kJ per serve minimum≥ 4 g protein per serve minimumVariable nutrient value nutrient profile:not specified; included for variety |  |  |
| **Standard snacks** | Fresh fruit:* 1 banana
* 1 medium apple
* 2 apricots
* 2 kiwi fruits
 | 2/day | 0.5–1 | Developmentally appropriate texture modification is consideredA number of different types of fruits are offered to ensure varietyWhere possible seasonal fruit is offered |  |  |
| **High-energy and nourishing snacks** | High-energy examples and serve sizes:Fruit cake ~ 40 gSmall muffin ~ 40 g Small muesli/breakfast bar ~ 30 gCheese (~ 20 g) & biscuits (2–3 savoury) Flavoured milk ~ 150 mLYoghurt ~ 160 gPortion sizes can vary; the onus is on meeting the specified nutritional profile | 1/day |  | A variety of snack options is offered on consecutive daysHigh-energy snacks nutrient profile:≥ 500 kJ per serve minimumNourishing snacks nutrient profile:≥ 500 kJ per serve minimum≥ 5 g protein per serve minimumAt least one snack option is a nourishing option (e.g. high protein) |
| **Water** |  | Unlimited  | NA | Water is readily and easily available at all timesTap water is preferred |  |  |

## Macro and micronutrient gap analysis

Table 5.7: Children 1–3 years – macronutrient gap analysis

| Nutrient  | Macronutrient goal | Average daily menu comparison | Average daily menu comparison (% of RDI met by menu) | Identified areas for improvement |
| --- | --- | --- | --- | --- |
| Energy | 4,200 kJ |  |  |  |
| Protein | 14 g |  |  |  |
| Fat | Ideally no more than 10% energy from saturated or trans fatty acids |  |  |  |
| Fibre | 14 g |  |  |  |

Table 5.8: Children 1–3 years – micronutrient gap analysis

| Nutrient  | Micronutrient goal | Average daily menu comparison | Average daily menu comparison (% of RDI met by menu) | Identified areas for improvement |
| --- | --- | --- | --- | --- |
| Vitamin C | 35 mg |  |  |  |
| Folate | 150 μg |  |  |  |
| Calcium | 500 mg/d |  |  |  |
| Iron | 9 mg |  |  |  |
| Zinc | 3 mg |  |  |  |
| Sodium | 1,000 (UL) |  |  |  |

Table 5.9: Children 4–8 years – macronutrient gap analysis

| Nutrient  | Macronutrient goal | Average daily menu comparison | Average daily menu comparison (% of RDI met by menu) | Identified areas for improvement |
| --- | --- | --- | --- | --- |
| Energy | 5,500 kJ/d |  |  |  |
| Protein | 20 g |  |  |  |
| Fat | Ideally no more than 10% energy from saturated or trans fatty acids |  |  |  |
| Fibre | 18 g |  |  |  |

Table 5.10: Children 4–8 years – micronutrient gap analysis

| Nutrient  | Micronutrient goal | Average daily menu comparison | Average daily menu comparison (% of RDI met by menu) | Identified areas for improvement |
| --- | --- | --- | --- | --- |
| Vitamin C | 35 mg |  |  |  |
| Folate | 200 μg |  |  |  |
| Calcium | 700 mg |  |  |  |
| Iron | 10 mg |  |  |  |
| Zinc | 4 mg |  |  |  |
| Sodium | 1,400 mg (UL) |  |  |  |

Table 5.11: Children 9–13 years – macronutrient gap analysis

| Nutrient  | Macronutrient goal | Average daily menu comparison | Average daily menu comparison (% of RDI met by menu) | Identified areas for improvement |
| --- | --- | --- | --- | --- |
| Energy | 7,500 kJ |  |  |  |
| Protein | 40 g |  |  |  |
| Fat | Ideally no more than 10% energy from saturated or trans fatty acids |  |  |  |
| Fibre | 24 g |  |  |  |

Table 5.12: Children 9–13 years – micronutrient gap analysis

| Nutrient  | Micronutrient goal | Average daily menu comparison | Average daily menu comparison (% of RDI met by menu) | Identified areas for improvement |
| --- | --- | --- | --- | --- |
| Vitamin C | 40 mg |  |  |  |
| Folate | 300 μg |  |  |  |
| Calcium | 1,300 mg |  |  |  |
| Iron | 8 mg |  |  |  |
| Zinc | 6 mg |  |  |  |
| Sodium | 2,000 mg (UL) |  |  |  |

Table 5.13: Children 14–18 years – macronutrient gap analysis

| Nutrient  | Macronutrient goal | Average daily menu comparison | Average daily menu comparison (% of RDI met by menu) | Identified areas for improvement |
| --- | --- | --- | --- | --- |
| Energy | 9,400 kJ/d |  |  |  |
| Protein | 65 g |  |  |  |
| Fat | Ideally no more than 10% energy from saturated or trans fatty acids |  |  |  |
| Fibre | 28 g |  |  |  |

Table 5.14: Children 14–18 years – micronutrient gap analysis

| Nutrient  | Micronutrient goal | Average daily menu comparison | Average daily menu comparison (% of RDI met by menu) | Identified areas for improvement |
| --- | --- | --- | --- | --- |
| Vitamin C | 40 mg/d |  |  |  |
| Folate | 400 μg |  |  |  |
| Calcium | 1,300 mg |  |  |  |
| Iron | 15 mg |  |  |  |
| Zinc | 13 mg |  |  |  |
| Sodium | 2,300 mg/d |  |  |  |