Appendix 5 (accessible)

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

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# 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 service  Consider 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 or dried | 1 medium banana, apple or orange  2 small apricots, mandarins or kiwi fruits  1 cup (150 g) diced/canned fruit  30–40 g dried (e.g. 4 prunes or PC sultanas) | 1/meal  Offered at all meals | 0.5–1 | Developmentally appropriate texture  Cut up where possible for younger children; canned fruit in natural juice (not syrup) or water  Variety at consecutive meals  Local, seasonal and fresh preferred |  |  |
| **Juice** | ~ 125 mL | 1/day  Not appropriate for the default menu | 1 | 100% fruit juice  No added sugar  1 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 serve  Higher fibre option should be provided as default  Large (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 soldiers  1 egg with congee  75 g baked beans on toast  Pancakes with fruit | 1/breakfast meal | 1–2 | Vegetables offered for variety  **Note**: They can be counted towards dietary vegetable serves  Eggs must be well cooked to reduce risk of salmonella  Nutrient profile:  ≥ 700 kJ per serve minimum  ≥ 5 g protein per serve minimum  Aim for ≤ 600mg sodium per serve maximum |  |  |
| **Bread** Toast/bread or bread roll | 30–45 g  Examples:  1 slice bread  1 bread roll | 2/meal  Offered at all meals | 1–2 | Offer at least one choice of wholemeal or multigrain bread; white bread can be available  Wholemeal or wholegrain bread should be the default choice  For variety offer small bread roll, raisin bread, crumpets, English muffins, wraps, roti, naan bread  Nutrient profile:  ≤ 400 mg sodium / 100 g |  |  |
| **Margarine** | PC serve  Margarine ~ 10 g | 1/meal  Offered at all meals with bread | 1-2 PC | Poly- or mono -unsaturated margarine is the default choice  Butter (PC ~ 7 g) may be offered on request |  |  |
| **Spreads** | PC serve  Honey ~ 13 g  Jam ~ 13 g  Vegemite ~ 5 g  Peanut butter ~ 11 g | 3/breakfast meal | 1–2 PC | Include a selection of jams, Vegemite and honey  Peanut butter and other nut spreads offered according to hospital allergy policy  Artificially 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 years  Calcium fortified soy milk should be available on request as an alternative to dairy  Nutrient profile (soy milk):  ≥ 100 mg calcium / 100 mL minimum |  |  |
| **Sugar and sugar substitutes** | PC serve  Sugar sachet ~ 4 g | Not available on the standard or default menu | 0 | Not available on the standard menu  Not provided on default menu  Available on request  Sugar substitutes are not necessary |  |  |
| **Soup** | ~ 180 mL | 1 soup / day | 0.5–1 | Soups for young children are offered according to hospital policy  A proportion of ‘nourishing’, ‘vegetarian’, ‘culturally diverse’, ‘easy-chew’ has been nominated according to hospital population need  Broth can be offered as a fluid source and for appropriate therapeutic diets  Variety is maintained at consecutive meals  ‘Nourishing option’ nutrient profile:  ≥ 400 kJ per serve minimum  ≥ 5 g protein per serve minimum  Aim 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 days  Oven-baked, grilled, or steamed cooking techniques used in preference to frying with oil  A vegetarian option is available at every eating occasion  Fish is offered twice a week  Nourishing option nutrient profile:  ≥ 700 kJ per serve minimum  ≥ 10 g protein per serve minimum  Aim for ≤ 600mg sodium per serve maximum  If 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 variety  Variable nutrient value should not comprise more than 20% of the menu |  |  |
| **Starch/grains** | Serve ~ ½ cup  or 75–120 g cooked  Hot 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 interest  Lower 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 dishes  Variety is included with consecutive meals and on consecutive days  Seasonal vegetables are used where possible  Presentation 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 salad  Offer unsaturated fat PC salad dressings  Raw vegetables/salad can be offered as an alternative to cooked vegetables  Seasonal vegetables are used where possible  Note: 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 dish  Condiments should be offered to match the dish |  |  |
| PC serve  Salt 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 / wrap  Nourishing fillings:  Egg × 1  Cheese (20 g minimum)  Lean meat / chicken / fish (50 g minimum)  Hummus ~ 30 g  Falafel ~ 50g | 2/day  1 nourishing option / day minimum | 0.5–2 sandwich | A variety of sandwiches are offered at consecutive meals and on consecutive days  A variety of breads and wraps included (e.g. wholemeal, wholegrain, white, sourdough, roti.)  Mono- or poly- unsaturated margarine, avocado or hummus are used as spreads  Sandwiches made on wholemeal or wholegrain bread are the default choice  Sandwiches are presented as wedges for a paediatric finger food option  Sandwiches and wraps are toasted to improve acceptance/interest  Large (double) serve available for older children  Half sandwiches are offered to younger children and as a snack option for all patients  Sandwiches are readily available on the ward for patient access  Nourishing nutrient profile:  800 kJ per sandwich minimum  8 g protein per sandwich minimum  Variable nutrient value nutrient profile:  not specified; included for variety |  |  |
| **Desserts** | Nourishing option:  Portion controlled serve: 150g minimum  Creamy yoghurt  Dairy dessert (e.g. Fruche), custard  Variable nutrient value option  Portion control serve:  Ice cream 100 mL minimum  Jelly 110 g minimum  Portion sizes can vary; the onus is on meeting the specified nutritional profile | 4/meal  1 nourishing option / meal minimum | 2 | Offer a variety of nourishing desserts on consecutive days  Nourishing nutrient profile:  ≥ 500 kJ per serve minimum  ≥ 4 g protein per serve minimum  Variable 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 considered  A number of different types of fruits are offered to ensure variety  Where possible seasonal fruit is offered |  |  |
| **High-energy and nourishing snacks** | High-energy examples and serve sizes:  Fruit cake ~ 40 g  Small muffin ~ 40 g  Small muesli/breakfast bar ~ 30 g  Cheese (~ 20 g) & biscuits (2–3 savoury)  Flavoured milk ~ 150 mL  Yoghurt ~ 160 g  Portion sizes can vary; the onus is on meeting the specified nutritional profile | 1/day |  | A variety of snack options is offered on consecutive days  High-energy snacks nutrient profile:  ≥ 500 kJ per serve minimum  Nourishing snacks nutrient profile:  ≥ 500 kJ per serve minimum  ≥ 5 g protein per serve minimum  At least one snack option is a nourishing option (e.g. high protein) |
| **Water** |  | Unlimited | NA | Water is readily and easily available at all times  Tap 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 |  |  |  |