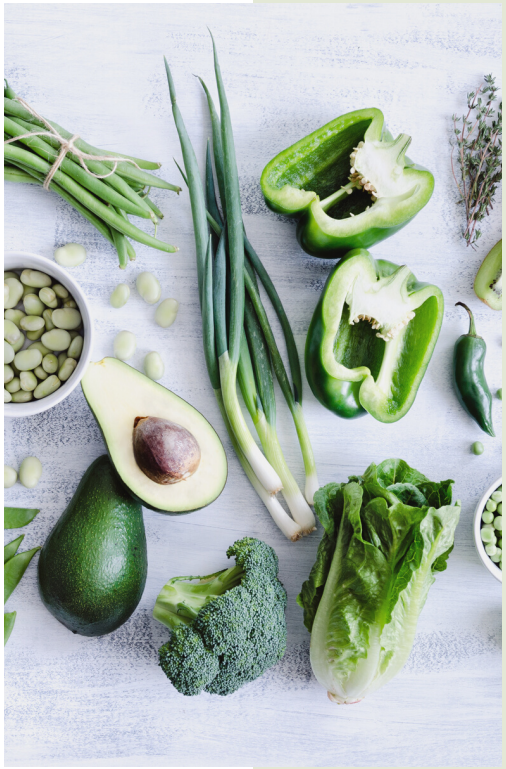

Fortification and a Food First Approach:

Increasing the nutritional quality of aged care menus

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DISCLOSURE

I acknowledge that my presentation for Dietitian Connection has been sponsored by Abbott Australasia.
The information presented today is based on my own research and experiences. This allows me to share this information with many dietitians with the goal of improving the quality of aged care nutrition across aged care facilities and in the community setting.

Learning Objectives:

1. Why a high protein, high energy diet is recommended in aged care facilities
2. How a HPHE menu as a standard can lead to better clinical outcomes for residents
3. A Food First approach and food fortification – what is the difference?
4. Practical strategies for dietitians to develop and implement HPHE menus

- Mostly >65 years
- >213 000 places in RACF in Australia (2019)
- >2700 facilities (average 75 beds)[1]

WHO ARE OUR OLDER PEOPLE IN CARE?

OLDER PEOPLE HAVE SPECIALISED NUTRITION REQUIREMENTS

CLINICAL RECOMMENDATIONS IN A HOME SETTING

Challenges to Good Nutrition

- Reduced or minimal appetite
- Early satiety (feeling of fullness)
- Inability to feed self
- Increased requirements eg infection, fractures
- Side effects of/ interactions with medication
- Dislike of diet eg texture modified diets
- Multiple medical conditions

- Malnutrition data is variable, but can be as high as 68%[2]
- The goal is always *prevention first* where possible

IS WEIGHT LOSS THE SAME IN OLDER PEOPLE?

Nutritional frailty = loss of lean and fat mass almost entirely due to reduced food intake[3]

- Also known as starvation
- Distinct from sarcopenia
- Even a modest decrease in body weight increases risk of mortality

Sarcopenia

= age-related loss of muscle mass & strength[3]

- Strongly associated with functional impairment and physical disability
- Loss of muscle mass & strength occurs to a greater extent in lower part of the body

  → greater effect on ADL's
- Effects ALL older people
- Initial prevention strategy includes consuming adequate protein in combination with resistance exercise

What is the aim for protein?

- Aim for **1.2g/kg**/day[4]
- Recommended to help older people regain and maintain lean muscle mass and function

What does this look like on a menu?

Reference weight 70kg (estimated middle range)
= 84g protein

AGHE core food groups:

- Meat & Alternatives: 2 – 2.5 serves
- Dairy & Alternatives: 3.5 – 4 serves

	Serves	Protein per serve (average)	Protein (Total)
Meat & Alternatives	2.5	20g	50g
Dairy & Alternatives	4	8g	32g
			82g per day

- Breakfast
  - Milk on cereal
  - Scrambled eggs
- Morning tea
- Lunch
  - Fish or Chicken
  - Ice cream (discretionary but this counts in aged care)
- Afternoon tea
- Dinner
  - Soup?
  - Lamb or ?

Missed Opportunities for food first approach

Where is the protein on this menu?

Dietitian's Toolbox

Food First Approach

Does the menu meet minimum recommendations for core food groups for Meat & Alternatives plus Dairy & Alternatives?

Food Fortification

Make recommendations to increase core food groups to meet minimum serves (baseline ~80g protein)
Spread protein across the day

Review menu recipes/ ask chef for amounts of raw ingredients of main meals & desserts to estimate actual protein – increase as required

Make recommendations to fortify meals where possible
Eg skim milk powder/ ONS powder (e.g. Ensure Powder) into milk/ porridge/ soup/ mashed potato

Make recommendations to provide fortified drinks and snacks between meals eg milkshakes/ smoothies/ puddings

How can we improve this menu?

Food First	Fortification
Continue to offer eggs at breakfast for all consumers	Add skim milk powder or ONS powder into porridge, milk for cereal at breakfast
Offer a protein-containing snack at morning tea eg mini quiche, cheese & crackers, high protein pudding (made fresh from whole food ingredients)	Offer a homemade milkshake/ smoothie for morning tea along with a regular snack
Check the serve sizes of fish or chicken at lunch meets at least 1 serve (80-100g cooked)	Add ONS powder or milk powder into appropriate soups
Specify the soup – aim for a protein base for all soups (eg beef & vegetable, pumpkin & lentil)	Desserts & mid-meal snacks made with ONS powder

Does a High-Energy High-Protein Diet Reduce Unintentional Weight Loss in Residential Aged Care Residents?

Sossen L, Bonham M, Porter J. Does a High-Protein High-Energy Diet Reduce Unintentional Weight Loss in Residential Aged Care Residents? JNGG. 2020; 39:1, 56 – 68.

- Aimed to investigate if a structured program of HEHP menu items complementing the usual menu would be an effective nutrition therapy compared with the use of ONS to manage unintentional weight loss in aged care residents.
- Additional protein and energy intake across the days' menu can contribute to small but meaningful weight gain and minimise weight loss.

When do you introduce food fortification into an aged care menu?

When the standard menu does not meet the recommended protein requirements for older people

Food Fortification – What & How?

- How to choose the product that you will use to fortify meals. Based on:
  1. Foods that the ONS powder will be mixed in to eg porridge, soup, mashed potato
  2. The amount of ONS powder required to meet protein goals for the fortified component. Does the chosen product meet your protein and other nutrient goals?
  3. The ease of mixing, after taste, mouthfeel – remember, if it doesn't taste good, it won't be eaten!
  4. Cost of the product per serve – what is the cost benefit to the facility? How does this differ to ready to drink supplements?

Food Fortification – Practical Strategies

- **Test, test, test!!**
  - Food is only nutritious if it is eaten – does the fortified food taste delicious? If not, go back to the kitchen with the chef and keep testing
- Not all ONS powders will be suitable for every facility – this depends on the food service processes
  - Eg: if a meal is kept hot in a bain marie for up to 1 hour at meal service times, fortified foods using dairy-based powders are likely to 'split' with the higher heat at longer temperatures. This is also applicable if it is 'boiled' in soup or porridge during cooking.
  - Check the product to be used and identify when is the best time and method to add the powder into food. Foods that are to be served hot are the most challenging to get right

Food Fortification – Practical Strategies

- A combination of food first and food fortification is likely to be suitable to more facilities, rather than choosing one over the other.

Standard	HPHE
Pumpkin Soup	Creamy pumpkin & lentil soup
Porridge	Porridge with skim milk powder
Cauliflower (side vegetable)	Cauliflower cheese
Plain biscuits (snack)	Cheese & crackers; mini quiche
Apple crumble	Apple crumble with custard fortified with ONS powder

This is William

- He is 65kg, manages to mobilise with his 4WW to the dining room daily. He has a small appetite and doesn't like big meals. How can we meet his protein requirements through the HPHE menu?

Mealtime	Menu (protein)
Breakfast	Fortified porridge (12g) 1 egg (6g)
Morning Tea	2 biscuits with 150ml smoothie (15g)
Lunch	Small serve main hot meal (20g) Dessert with custard 100ml (4g)
Afternoon Tea	Mini quiche with cup of tea (5g)
Dinner	Soup with 1 slice bread, small serve hot meal, fruit (20g)
Supper	Full milk chocolate drink with 2 plain biscuits (8g)

Total = 90g

(Assuming he eats and drinks it all)

Promote the value of HPHE menus

- This can be challenging
- Our role is to outline the cost benefits of maintaining nutrition status vs the cost of malnutrition
- Implementing a HPHE is the best strategy to reduce malnutrition-related costs

Remember: food is only of nutritious value if it is eaten!

We need to ensure that the dining and mealtime experience is enjoyable, safe and supportive for consumers.

This includes staff assistance to consume their meals & fluids, checking who is not eating well or who needs additional support

Key Messages:

- A high protein, high energy diet is recommended in aged care facilities
- A HPHE menu as a standard can lead to better clinical outcomes for residents – protein to be spread across the day
- Food first approach and a food fortification – both strategies can be used from a Dietitians Toolbox to reach the desired nutritional profile for a menu
- Get in the kitchen! Have fun, be a resource for the facilities and show them HOW to provide nourishing, delicious food

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