Nutrition in the Elderly

Overview

• Background on Nutrition in the Elderly
• Poor Nutrition and Health
• Causes and Consequences of Undernutrition
• Nutritional Goals and Management of Undernutrition

Aim and Objectives

Aim:
• To increase general knowledge of nutritional needs for the elderly

Objectives:
• To identify causes of undernutrition in the elderly
• To discuss and identify nutritional strategies to improve oral intake in elderly people
Background on Nutrition in the Elderly

- All elderly people are at risk of undernutrition, regardless of whether obese or underweight
- Undernutrition affects 10–44% of older Australians

Research shows poor nutrition intake may lead to:
- Nutritional deficiencies
- Weight loss
- Undernutrition and Malnutrition

Definitions

Undernutrition: is characterised by weight loss associated with significant depletion of fat stores and muscle mass.

Malnutrition: includes 1) undernutrition resulting from reduced food intake; 2) selective nutrient deficiencies and 3) imbalances because of disproportionate intake, associated with adverse effects on tissue/body form (shape, size, composition), function and clinical outcomes.

Use a validated screening tool eg. MST, MNA to determine risk

Poor Nutrition and Health

- Frailty syndrome (can include 3 of the following):
  - Unintentional weight loss
  - Physical weakness
  - Exhaustion
  - Slow gait speed/poor physical performance
  - Low physical activity
- Muscle mass decreases due to changes to metabolism
- Protein requirements up to 25% higher than for younger adults
Poor Nutrition and Health continued

- Malnutrition has adverse clinical outcomes
  - Increased risk of falls (OP/bone fractures)
  - Depression
  - Lethargy
  - Pressure injuries and poor wound healing
  - Loss of strength (reduced mobility/independence)
  - Increased chance of hospital visits
  - Poor immune system (increased infection risk)
  - Delayed recovery from illness

Causes of Undernutrition

Q: What is the main cause of malnutrition in the elderly?
A: Disease
- Diabetes
- Renal disease
- Cancer
- Oral and GI Tract disorders
- Parkinson’s Disease
- Dementia

Other causes of undernutrition

- Decreased taste & smell
- Early satiety
- Depression & bereavement
- Polypharmacy
- Constipation
- Poor oral health & dentition
- Dysphagia
- Infections
- Pain & Functional challenges
- Unnecessary diet restrictions
**Decreased taste and smell**

- Tastebuds reduce in number from 245 at 30yo, to ~80 by 70yo
- Sense of taste comes from smell
- Decreases with medications
- Pathologic and iatrogenic causes:
  - Diabetes, CRF, Sjogren’s syndrome, Dementia, Parkinson’s Disease
  - Cancer and Radiation
  - Hypothyroidism
  - Zinc deficiency
  - Depression
  - Sinusitis

**Strategies**
- Add cream + sugar to milk
- Add herbs, spices, butter
- Use condiments & gravies
- Serve meals hot to increase smell, eg. Roasts, Soup, BBQ
- Serve food that appeals to the other 4 senses – sight, sound, texture
- Reduce metallic taste by using plastic cutlery for cancer patients

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**Early Satiety**

- Often accompanied with decreased taste and smell
- Increased levels of CCK - gastro hormone cause early “fullness” during meals
- Increased CCK is more marked in malnourished population

**Strategies**
- Offer small, nutritionally dense meals and snacks
- Use meal pass with a 2Cal supplement
- Fortify diet with butter, margarine, oil, cream, milk powder or grated cheese
- Offer nourishing drinks eg. milk, juice, smoothies, milo rather than plain water

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**Depression and Bereavement**

- Prevalent in elderly
- Young over-eat, elderly under-eat
- Most common cause of weight loss in aged care
- 55-63% undiagnosed
- Screen for dementia, anxiety and depression
- Medications can improve depression and appetite

**Strategies**
- Encourage social eating/ eating out
- Find out food/drink preferences and offer these
- Allow to choose own meal
- Make meal times relaxed and enjoyable
- Smaller high protein/energy meals more often
- Eat next to friends in dining room
- Gently prompt and encourage to eat/drink
Polypharmacy

- Multiple medications
- Some medications interfere with particular nutrients
- Average 8-9 medications/day
- Combining medications may have side effects
- Review meds influencing appetite/nutrition & seek alternative medications or eliminate if possible

Strategies
- Time medications so not "full" from tablets before meals if possible
- If medications need to be crushed, try mixing with yoghurt/custard
- Time antiemetics before meals to reduce nausea/vomiting and improve appetite

Constipation

- Inadequate fibre intake
- Inadequate fluids
- Medications eg. Endone
- Decreased activity levels
- Affects appetite
  - Stomach aches & cramps
  - Feeling bloated
  - Feeling sick

Strategies
- Ensure adequate fluids that are also high in calories
- Add a fibre supplement such as Benefibre to cereal/juice or sprinkle on fruit/yoghurt
- Incorporate high fibre foods eg. WM bread, All Bran
- Pear/prune juice, prunes at breakfast
- Encourage physical activity

Oral Health

- Chewing difficulties
- Sore mouth
- Problems may include
  - mouth sores, tongue lesions, dental caries, gum disease, ill fitting dentures, missing teeth, thrush
- Review oral health and encourage dental reviews

Strategies
- Serve soft texture foods and/or minced moist meat
- Check if cold/hot foods increase sensitivity
- Try to minimise stringy/hard foods that stick in teeth
- Incorporate HEHE "easy to eat" foods eg. custard, yoghurt, ice cream, pudding, mousse, avocado, poached eggs
- Regular oral cares
**Dysphagia**

- Signs and symptoms
  - Refer to a Speech Pathologist for potential alteration of texture or thickening fluids (risk of aspiration)
  - Issues with dysphagia lead to reduced nutrient intake
  - Tendency to fatigue during meals, may require assistance

**Infections**

- Common in elderly: UTIs, chest infections, skin infections, influenza
- Some infections increase energy (ie. calorie) requirements
- Protein plays a role in assisting immunity and wound healing
- Infection decreases appetite
- Antibiotics can cause GI disturbances and diarrhoea

**Strategies**
- Fortified foods, eg fortify porridge, soup, desserts
- Encourage high calorie fluids eg lemonade, juice, cordial
- Plain tasting foods may be preferred, eg crackers, mashed potato, bread, hot chips but add butter or cheese to boost calories & protein

**Pain and Functional Challenges**

- Pain affects appetite++
- Pain with utensils
- PT referral or review of pain medications
  - Inability to feed oneself
  - are meals set up? cut up?
  - verbal and/or physical prompting used?
  - adaptive eating devices needed?
- OT referral to discuss functional challenges
- Finger foods can be easier to manage
### Unnecessary diet restrictions

- Unpalatable, reduce pleasure of eating
- Decrease oral intake (unintentional weight loss & undernutrition)
- Should not be prescribed unless absolutely necessary
- Nil benefit to restricting food groups that provide essential nutrition
- Can be self-imposed eg. fear of constipation, diarrhoea etc.
- Can be imposed by family
- **Liberalise diet if at risk of malnutrition**

### Diet Review

- Look at
  - Current oral intake eg. diet hx, food and fluid chart
  - Reason for decreased intake eg. dysphagia, constipation, dental issue etc.
  - Nutritional requirements eg. are they increased?
  - Oral intake to meet nutritional requirements i.e. what needs to be added for the individual?

### Successful approaches in Nutritional Care

- Utilise multi-disciplinary team
- Consult with resident & family
- Increase intake via a number of strategies
- Remove dietary restrictions
- High Energy High Protein (HEHP) diet
- Consider oral supplements
- Eventually restore a well balanced diet and well nourished state
**HPHE Diet is useful when:**

- Low weight
- Unintentional weight losses e.g. >2kg in 1/12
- Reduced intake due to poor appetite
- Increased requirements e.g. pressure injuries
- First step is to improve dietary intake via familiar/preferred foods prior to supplements

**HEHP Diet**

**Protein**
- Meat, chicken, eggs, fish
- Nuts and seeds, including peanut butter
- Dairy foods- milk, yoghurt, custard, cheese
- Legumes, tofu and lentils

**Energy**
- Butter, cream, oils, margarine, avocado
- Full cream dairy
- Desserts
- Soft drinks, juice, milkshakes & smoothies
- Snacks e.g. cake, biscuits, party pies, cheese & crackers

**Supplements**

- Used in combination with diet
- Determine which timing is best - between meals or with meals for the individual
- Many types (powder, liquid, puddings, cookies)
- One type does not fit all
- Commenced by nursing staff, GP or Dietitian
- Be aware of “taste fatigue”
- Use a food first approach
Summary

By the end of this session, have you achieved the following...

- Increased general knowledge of nutritional needs for the elderly?
- Identified causes of undernutrition in the elderly?
- Identified nutritional strategies to improve oral intake in elderly people?

Please refer to the quiz questions to assess your knowledge from this course.

References