Nutrition in Advanced Dementia

Presenter: Dr. Milta Little
Disclosure Statement: I have nothing to disclose.

Objectives: By the end of the session, participants will be able to…

- Define cachexia, anorexia and frailty in advanced dementia
- List the drawbacks and potential complications of G-tubes in advanced dementia
- Describe a person-centered nutritional plan for a person with advanced dementia

Expected Outcomes (Desired change in practice):

- Increase confidence and number of ACP discussions around nutritional support in advanced dementia
- Reduced dysphagia complications
- Reduced inappropriate G-tube placements in advanced dementia

Article for Review: **Minaglia C, et al. Cachexia and advanced dementia. J of Cachexia, Sarcopenia and Muscle 2019; 10:263-277**

Additional articles used:

Fact Sheets 4A-F Nutrition & Hydration – Issues in Dementia Palliative Care. Irish Hospice Foundation

Outline for Rapid Fire session

1. Case: Advanced Dementia

Mrs. S. is an 89-year-old widowed female with a six-year history of vascular dementia and parkinsonism. Her past medical history also includes hypertension, diabetes mellitus, osteoarthritis, and osteoporosis. She was admitted to LTC 2 years ago.
She has three children and one of her daughters is her proxy decision maker.
She is now unable to ambulate, can say only a few words, is dependent in all activities of daily living, and does not recognize her family members. She has lost 5% of her body weight in the past 6 months.
She is having trouble swallowing, has been coughing while drinking, and has had one episode of aspiration pneumonia in the past year. For the last 2 days, she has been coughing frequently and appears short of breath and sleepy. Upon physical examination, you are concerned about recurrent aspiration pneumonia. The nurse expresses concern that she might also be dehydrated.
Her daughter visits daily and is concerned about her mother's decline and trouble swallowing. She is worried that she is "starving and dehydrated all the time because the aides are too busy around here to take care of mom." She asks you about placing a feeding tube to help improve her nutrition and weight loss.

2. Definitions
    a. Cachexia – complex metabolic process in the setting of chronic disease, presenting as muscle wasting, weight loss, and systemic inflammation

    b. Anorexia of Ageing – loss of appetite and decreased food intake in late life; due to reduced orexigenic signal from hypothalamus (“inflammaging”)

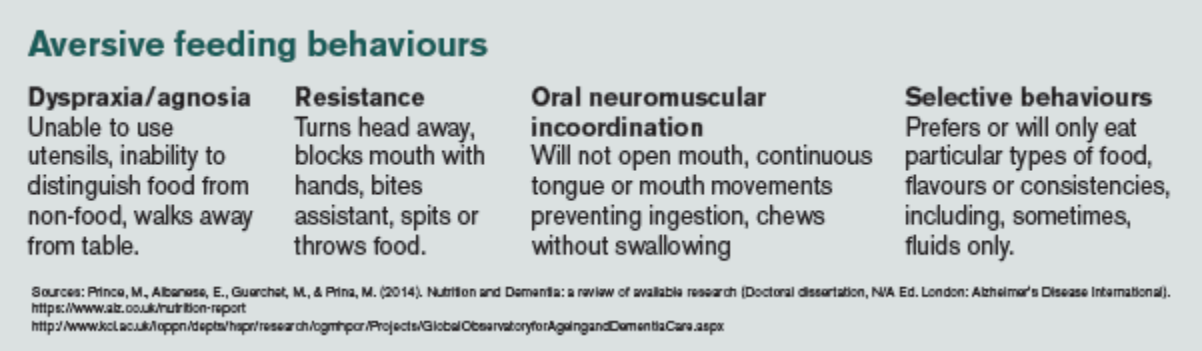
    c. Sarcopenia – reduced muscle mass and function, major marker of malnutrition and poor functional performance

    d. Frailty – cumulative age-related declines across multiple physiologic systems leading to reduced resilience and increased vulnerability to stressors

Table 1. Definition and core features of cachexia, sarcopenia, anorexia of ageing, and frailty syndrome

	Definition	Anorexia	Comorbidity	Functional limitation	Energy intake	Resting energy expenditure
Cachexia	Unintentional weight loss of >5% of the usual body weight during the last 6 months	+++	+++	+++	⇩	⇧
Sarcopenia	Low muscle mass Low muscle strength Low physical performance	+	+/–	+++	⇩	⇩
Anorexia of ageing	Loss of appetite and decreased food intake later in life	+++	+/–	+/–	⇩	⇩
Frailty syndrome	Multisystem syndrome of low physiological reserves, with a diminished capacity to respond to stressors	++	++	++		

3. Swallowing, eating, and drinking problems in dementia
    a. Common problems (Fact Sheet 4A)



b. Assessment of hydration and nutrition (Fact Sheet 4C)

Hydration can be assessed by:

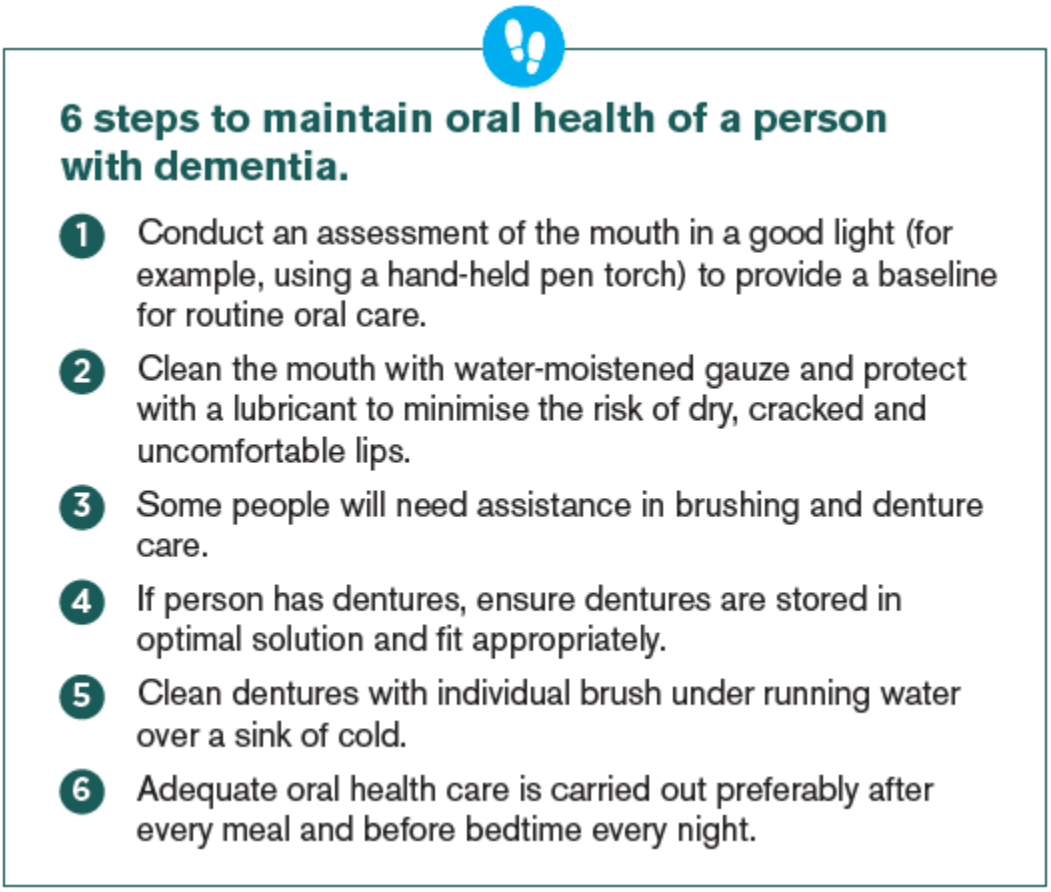
- Variation in blood pressure measurements.
- Dryness of the tongue and mucous membranes.
- Complaints of persistent tiredness, nausea, confusion, back pain, rapid breathing, dry mouth, lethargy, heartburn, muscle weakness, dizziness, headaches, dry eyes or constipation.
- Substantial decrease in urinary volume and thirst

Nutrition can be assessed by:

- Dietary evaluation methods (e.g. 24 hour dietary recall, food frequency questionnaire and food records).
- Body measurements such as weight or BMI
- Biochemical, laboratory methods (e.g. full blood count, electrolytes, urea and creatinine, fasting glucose, albumin and ferritin).
- Clinical methods (e.g. detailed history, assessment tools such as fluid balance chart, MUST, MNA).

4. Nutritional "needs"
    a. Optimal nutritional intake in advanced dementia is unknown
    b. Theoretically, 1.5 g/kg/day of protein
    c. Studies of oral nutritional and targeted protein supplements have shown inconsistent results – may lead to weight gain but other nutritional parameters or sarcopenia/cachexia assessments not improved
5. Artificial hydration and nutrition
    a. Overall, research of G-tubes is clear that the risks outweigh benefits
        i. Only a few trials showed benefit of G-tube feeing in dementia
        ii. Majority of studies showed no difference or worse: mortality, survival, aspiration events, pressure ulcers, malnutrition parameters
        iii. Complications include pain, bleeding, leakage, infection, ulceration, blockage, dislodgement, migration, peritonitis, ileus, agitation
    b. Artificial hydration may increase distress and symptom burden at the very end of life; may be considered during episodes of acute illness (e.g. COVID)

6. Oral health (Fact Sheet 4D)



6 steps to maintain oral health of a person with dementia.

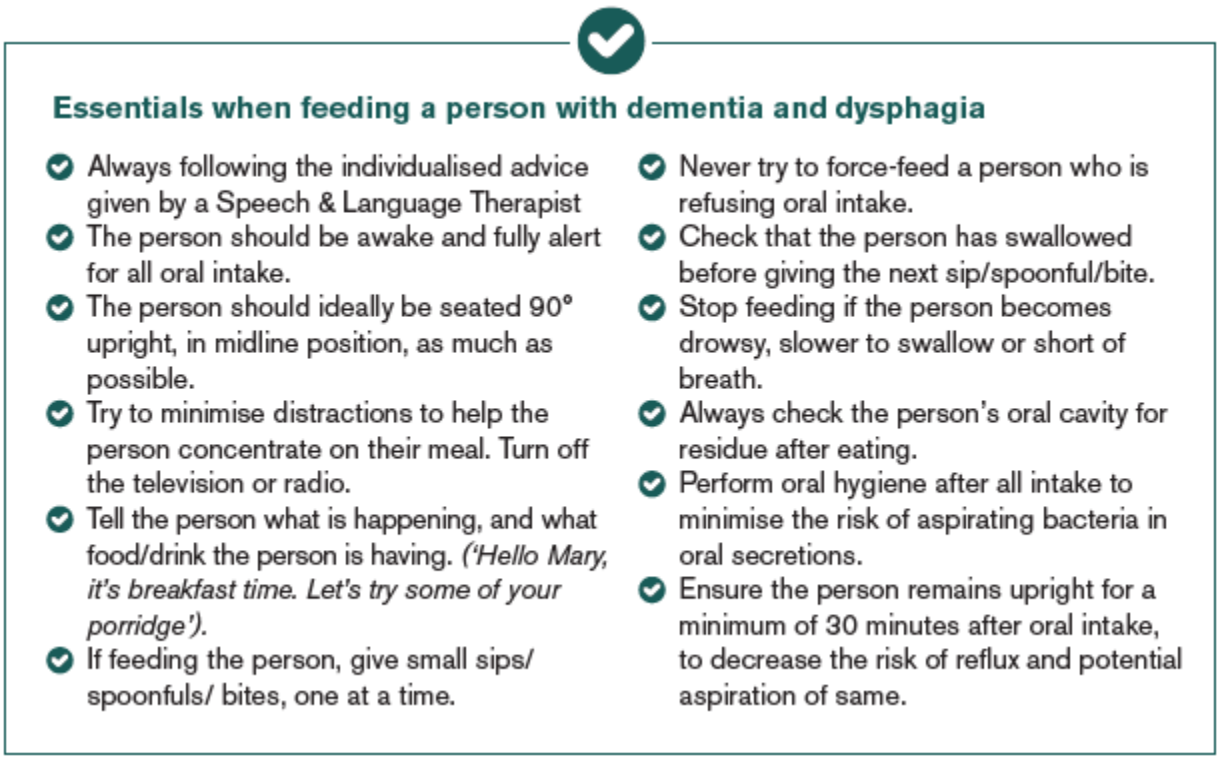
1. Conduct an assessment of the mouth in a good light (for example, using a hand-held pen torch) to provide a baseline for routine oral care.
2. Clean the mouth with water-moistened gauze and protect with a lubricant to minimise the risk of dry, cracked and uncomfortable lips.
3. Some people will need assistance in brushing and denture care.
4. If person has dentures, ensure dentures are stored in optimal solution and fit appropriately.
5. Clean dentures with individual brush under running water over a sink of cold.
6. Adequate oral health care is carried out preferably after every meal and before bedtime every night.

7. Personalized feeding plan (Fact Sheets 4B and 4F)
    a. Person-centered: food preferences, no food group restrictions

    b. Team-based: ST for texture/alterations; RD for fortification, assessment, and monitoring; nursing culture change to encourage food/drink availability at all times (day or night); OT for environmental and equipment adaptations

    c. Ethical: early and often ACP with shift towards comfort at end of life

    d. Safe and dignified:



Essentials when feeding a person with dementia and dysphagia

- Always following the individualised advice given by a Speech & Language Therapist
- The person should be awake and fully alert for all oral intake.
- The person should ideally be seated 90° upright, in midline position, as much as possible.
- Try to minimise distractions to help the person concentrate on their meal. Turn off the television or radio.
- Tell the person what is happening, and what food/drink the person is having. *('Hello Mary, it's breakfast time. Let's try some of your porridge').*
- If feeding the person, give small sips/ spoonfuls/ bites, one at a time.
- Never try to force-feed a person who is refusing oral intake.
- Check that the person has swallowed before giving the next sip/spoonful/bite.
- Stop feeding if the person becomes drowsy, slower to swallow or short of breath.
- Always check the person's oral cavity for residue after eating.
- Perform oral hygiene after all intake to minimise the risk of aspirating bacteria in oral secretions.
- Ensure the person remains upright for a minimum of 30 minutes after oral intake, to decrease the risk of reflux and potential aspiration of same.