As people age, the muscles involved in swallowing often become weaker. This may explain why swallowing difficulties are relatively common in older people (Rogus-Pulia et al, 2015). Some will be able to manage certain textures and consistencies of food and fluids, while others will choke on whatever they eat or drink. Dysphagia (difficulty swallowing) often develops in people with long-term conditions such as dementia. Food, drink and even saliva may enter the bronchial tract, potentially leading to:

- Choking;
- Aspiration pneumonia.

The consequences of dysphagia on an individual’s health include:

- Malnutrition;
- Dehydration.

The number of frail, older people who have dysphagia, particularly those aged >80 years, is increasing (Leder and Suiter, 2009). The consequence is an increase in hospital admissions and a greater demand placed on the healthcare system.

This article addresses the role of the multidisciplinary team (MDT) in helping people with dementia and dysphagia to eat and drink, while reducing their risk of aspiration. This involves implementing five recommendations – the 5 Fundamental Ms – which I developed to provide a framework for health professionals working with people who have dementia and dysphagia to help their patients eat and drink while reducing their risk of aspiration.

**In this article...**

- Effects of ageing and dementia on swallowing and eating
- Detrimental effects of dysphagia and risk of aspiration in people with dementia
- Five fundamental recommendations to reduce the risk of aspiration

**5 Fundamental Ms: cutting aspiration risk in dementia and dysphagia patients**

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**Abstract** Swallowing ability is not only affected by increasing age but also by dementia. People with advanced dementia will often develop dysphagia, resulting in harmful consequences to their health and wellbeing. However, it is recommended that they should continue to receive an oral diet, rather than being put on enteral feeding, because this is better for their quality of life. This article discusses the 5 Fundamental Ms – these are key recommendations that can be used as a framework to help health professionals who are involved in the treatment and care of people with dementia and dysphagia to help their patients eat and drink while reducing their risk of aspiration.

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CLINICAL PRACTICE

Review

Chosen route Participant's comments

1. Puréed diet and level-1 fluids
   “If I had an operation and died, at least I had my quality of life”

2. Soft and bite-sized diet and level-1 fluids
   “I want to continue to eat and drink”

3. Puréed diet and level-0 fluids
   Oral

4. Regular diet and level-0 fluids
   Oral
   “If I had an operation and died, at least I had my quality of life”

5. Puréed diet and level-0 fluids
   Oral

6. Puréed diet and level-1 fluids
   Oral

7. Puréed diet and level-0 fluids
   Oral
   “I take a lot of pleasure from eating”

8. Puréed diet and level-0 fluids
   Oral

9. Soft and bite-sized diet and level-0 fluids
   Oral
   “I don’t want any tube in me”

*Level-0 fluids = thin; level-1 fluids = slightly thickened
with mild dementia regarding their route of nutrition. The severity of their cognitive impairment was established using the Abbreviated Mental Test Score (they scored 6-8 points) and Mini Mental State Examination (they scored 18-23 points). Participants’ mental capacity to make a decision regarding their route of nutrition was established in line with the Mental Capacity Act 2005 (Bit.ly/MCA2005); with all deemed to have that capacity.

All participants had some degree of swallowing impairment. They had undergone an assessment of swallowing, following which recommendations for diet and fluids had been made.

Participants were given a choice of eating and drinking with aspiration risks or being nil by mouth and receiving nutrition via an enteral tube. They were informed of the risks associated with both options. All indicated strongly that they preferred oral nutrition to tube feeding.

Table 1 summarises the data from the study, including participants’ comments, which show their desire to maintain their quality of life.

The 5 Fundamental Ms
For individuals who have dementia and dysphagia, the goal of risk feeding is to maintain their quality of life. Five recommendations – the 5 Fundamental Ms (Fig.1) – provide a framework that can help to reduce the risk of aspiration in these patients:

- MDT involvement;
- Maximising posture;
- Mealtime preparation;
- Mouth care;
- Medication management.

“People should be supported to sit in a chair rather than in bed, as sitting in a reclined position in bed can negatively affect the ability to breathe and expectorate.”

Maximising posture
For oral food intake, people should be supported to sit in a chair rather than in bed, as sitting in a reclined position in bed can negatively affect the ability to breathe and expectorate. Taking the time to optimise the person’s position before eating and drinking is essential. According to Alghadir et al (2017), correct positioning improves the speed and safety of swallowing. A physiotherapist can be consulted on how to improve positioning and posture. The aim is usually for a 90° angle at the hips, knees and ankles. The person’s head, feet and arms should be appropriately supported.

Spouted beakers are beneficial for some people but should only be used if recommended by the SLT; they should not be used routinely. Spouted beakers require more tilting to access the fluid, which can alter neck positioning and cause straining; they can also increase the risk of choking if the individual is unable to control the amount of fluid taken.

Mealtime preparation
A good mealtime experience can have a positive impact on the individual’s nutritional intake and social wellbeing (Alzheimer’s Society, 2016). Before the meal, food and fluid recommendations need to be checked so that appropriate food and fluids are offered. Volunteers will not normally feed people who are at high risk of aspiration, but they may contribute to preparing the environment and/or the meal – as such, they must be made aware of an individual’s needs and any precautions that are required.

Patients need to be informed of the time of day and the meal they will be having. If they are able to self-feed, food should be placed in front of them where it can be seen and reached. The sight and smell of the food will stimulate the olfactory and optic nerves, which forms the first step in the process of swallowing.

People with dementia may take a long time to eat. Staff who help them with eating need to follow each person’s rhythm and establish the appropriate rate of feeding and mouthful size. Hand-over-hand assistance involves the caregiver placing their hands on the hands of the person and initiating the movement or action, prompting the person to complete it. The technique can be used, where adequate, to help people self-feed.

People with dementia may become dehydrated because they forget to drink. Placing a cup in front of them is not always
sufficient, as they may not know what to do with it. Some people will need to be prompted to drink; support staff can encourage fluid intake through social interaction.

Coloured cups have been shown to attract the attention of people living with dementia (Dementia UK, 2016). It is better, however, to avoid cups of opaque plastic in dark shades, as fluid levels will not be visible; cups in translucent material and light shades of colour are preferable. Likewise, colourful plates can increase the oral intake of food in people with dementia. According to Chaudhury and Cooke (2014), 25% more food is consumed from a red plate compared with a white one. Occupational therapists may recommend using items such as non-slip mats, plate guards and adapted utensils to increase independence.

People with advanced dementia may have difficulties communicating their needs and preferences, and this will manifest in their behaviour; for example, they may refuse to eat, or they may spit out food or drinks. It is crucial that staff are aware of such issues, so they can provide the assistance, supervision and encouragement required. Most SLT departments in hospitals offer bespoke training to care staff, who are often responsible for helping patients with feeding.

**Mouth care**

Failure to deliver good mouth care (including twice-daily teeth brushing) can contribute to difficulties with swallowing and exacerbate dehydration, malnutrition and frailty (National Institute for Health and Care Excellence, 2016). Older people who are frail often depend on others for oral care due to functional limitations of the limbs, oral motor impairment, neglect, apraxia and cognitive deficits (Willumsen et al, 2012). Beyond oral impairments related to oral structure and function, mastication, swallowing and saliva control may also be affected (Smithard, 2016). Oral pathologies are the most likely cause of pneumonia, so good oral care is vital to reduce pneumonia risk of (Seedat and Penn, 2016).

A study by Durgude and Cocks (2011) identified deficits in nurses’ knowledge regarding the link between oral hygiene, dysphagia and pneumonia, thereby identifying the necessity of further training for nursing and care staff. Good oral hygiene not only enhances quality of life and nutrition, but also reduces the occurrence of aspiration pneumonia and, in turn, the risk of death (Rosenblum, 2010).

**Medication management**

Staff may be tempted to make tablets easier to swallow by crushing them, melting them or dispersing their contents, but the altered medication may not be absorbed by the body as it should, with subsequent risks of reduced effectiveness and/or increased occurrence of side-effects (Royal Pharmaceutical Society, 2011). A qualitative study of medicines-related care of people with dysphagia living in care homes found limited staff awareness of the impact of tampering with medication, reinforcing the need for training in this area (Patients Association, 2015).

Before altering medication in any way, it is advisable to check directly with a pharmacist or GP, or check the medication administration record chart for specific instructions. The information should be communicated to other health and care settings on admission, transfer or discharge.

**Conclusion**

The 5 Fundamental Ms highlight the need to pay attention to fundamental areas of care likely to enhance the quality of life of people living with dementia and dysphagia. It is the responsibility of the MDT, both in acute and community settings, to take the lead in delivering an individualised approach to reducing the risk of aspiration in this population. NT

**References**

- National Institute for Health and Care Excellence (2016) Oral Health for Adults in Care Homes. nice.org.uk/ng48
- Willumsen T et al (2012) Are the barriers to good oral hygiene in nursing homes within the nurses or the patients? Gerodontology; 29: 2, e74-755.