Practical nutritional measures in patients with dementia

Edel McGinley

The management of nutrition in people with dementia is complex as it involves weight loss due to cognitive and physical problems caused by the condition. There is a range of practical approaches that the community nurse can implement, but these must be adjusted to suit each person. Often, a large proportion of the community nurse’s time is spent supporting carers, family and friends who are looking after a relative who has dementia at home. This can be a demanding role and carers often experience physical and emotional fatigue. For those working with patients with dementia in nursing, residential and care homes, it is particularly important that staff are supported with strong leadership to provide a flexible approach to meal times and that suitable menu options are available.

KEYWORDS: Nutrition □ Mental health □ Dietitian □ Dementia □ Carer support

Building on the work achieved with the ‘national dementia strategy’ in 2009 (Department of Health [DH], 2009), which set out recommendations to improve dementia care services, in February 2015 David Cameron announced a follow-up to 2012’s ‘dementia challenge’ by outlining a long-term strategy focused on boosting research, improving care and raising public awareness about dementia (DH, 2015).

Dementia has been described as a syndrome occurring as a result of a disease of the brain, which is chronic or progressive in nature (World Health Organization, 1992), and while this may be an oversimplification it is true that in recent years awareness of dementia has grown as the condition has attracted more media headlines.

This increased attention is warranted for a disease that in the UK alone affects an estimated 840,000 people, accounting for 7.1% of the population over the age of 65 (Alzheimer’s Society, 2014). The financial cost of dementia is also rising, with an annual price tag of £26 billion in the UK (Alzheimer’s Society, 2014).

The role of nutrition in dementia is complex, not necessarily due to the change in patients’ nutritional requirements, but more because of the disease’s presentation and the affect it has on activities of daily living. In this article, the author will discuss the practical approaches that community nurses — along with carers and families and those working in nursing or care homes — can take to manage nutrition in dementia.

BACKGROUND

People with dementia will often present with a range of symptoms that arise due to an impairment of several higher cortical functions, which include memory, thinking, comprehension, learning and judgement, among others.

Causes

The causes of dementia are not fully understood but broadly it is thought to result from structural changes in the brain due either to cardiovascular incidents (strokes) and chemical changes that lead to loss of brain volume and a reduction in the number of neurones (Zarow et al, 2005).

Symptoms

Some of the main symptoms of dementia include:

觉Forgetfulness
觉Poor concentration
觉Confusion
觉Difficulty with everyday tasks
觉Hallucinations and delusions.

Within the term dementia there are also various types, including:

觉Dementia with Lewy bodies: Lewy bodies are tiny deposits of protein found in nerve cells, which are poorly understood but are thought to affect chemical messengers in the brain (mainly acetylcholine and dopamine) and the connections between nerve cells
觉Vascular dementia: caused by impaired blood supply to the brain caused by a series of small strokes, for instance
觉Frontal lobe dementia: caused when nerve cells in the frontal and/or temporal lobes of the brain die, changing the pathways that connect them. Over time, the brain tissue in the frontal and temporal lobes may shrink
觉Dementia in Parkinson’s disease: dementia does not affect everyone with Parkinson’s disease but it is more common
觉Alzheimer’s disease: a physical disease that affects the brain through a build-up of proteins that form structures called ‘plaques’ and ‘tangles’. These damage the connections between nerve cells and eventually lead to
the death of nerve cells and the loss of brain tissue.

Alzheimer’s disease is the most common form of dementia and accounts for up to 75% of cases (Qiu et al, 2009). Main features include memory loss and difficulty in recalling words (in the early stages) (Taylor and Thomas, 2013), which can affect daily tasks such as shopping, managing finances and following directions.

Vascular dementia is the second most common form with a similar presentation to Alzheimer’s disease but also including depression, anxiety and apathy (O’Brien et al, 2003).

Dementia with Lewy bodies accounts for 10% of all cases diagnosed (Matsui et al, 2009). It has a similar presentation to Parkinson’s disease, including trembling limbs, shuffling gait and reduced facial expression. Dementia with Lewy bodies has similar features to Alzheimer’s in regard to memory and cognitive changes, but a marked difference in terms of visual hallucinations, recurrent falls, disturbed sleep and/or nightmares (McKeith et al, 2005).

Frontal lobe dementia is the least common form and features behavioural and personality changes including a lack of inhibitions, poor conformity and apathy (O’Brien et al, 2003). However, it is always important to consider the possibility of malnutrition, which in turn may be caused by reduced appetite, as a result of these problems, the patient can often lose weight, not due to the disease itself but to a decrease in energy and protein intake (Prentice et al, 1989). However, this can also be due to excessive walking/wandering, which can result in an increased need for calories (Rheaume et al, 1987; Keady et al, 2007). The management of patients who walk excessively can be difficult. One option is sedation, which increases the amount of sleep but can also affect mealtimes. However, music therapy and other forms of exercise have been shown to reduce wandering in people with dementia (Robinson et al, 2006).

It is important that community nurses consider the naturally occurring ageing process and its effect on nutrition alongside the more specific effects of dementia, particularly as the majority of diagnoses are made in the over-65s. Webb and Copeman (1996) identified four issues that are important to consider within the older population:

- Fluid balance and renal function
- Skeletal changes
- Physical fitness and strength
- Changes in immune system

Malnutrition

Some of these changes (or a combination) can result in decreased appetite, thereby reducing dietary intake. With older adult patients it is always important to consider the possibility of malnutrition, which in turn may be caused by reduced appetite, as a result of these problems, the patient can often lose weight, not due to the disease itself but to a decrease in energy and protein intake (Prentice et al, 1989). However, this can also be due to excessive walking/wandering, which can result in an increased need for calories (Rheaume et al, 1987; Keady et al, 2007). The management of patients who walk excessively can be difficult. One option is sedation, which increases the amount of sleep but can also affect mealtimes. However, music therapy and other forms of exercise have been shown to reduce wandering in people with dementia (Robinson et al, 2006).

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Table 1: Reasons why people with dementia may turn down food

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<td>Pain</td>
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<td>Constipation can lead to people feeling bloated or nauseous and thereby less likely to want to eat. Activity, fibre-rich foods and fluids can help prevent constipation</td>
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Source: Alzheimer’s society: www.alzheimers.org.uk

Eating habits may change, with overeating and a preference for sweet foods.

It is important that clinicians know which type of dementia the patient has, as the presentation can be different in each and the approach needs to be individualised for each patient.

Dementia and Nutrition

The effects of dementia on nutritional intake and nutritional status are considerable. As described above, the diagnosis of dementia varies according to behavioural, emotional and physical changes, each of which can have an impact on the patient’s eating habits and food and fluid intake.

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body strength, thereby reducing mobility and increasing the risk of thromboembolism.

All of these factors can malnourish older people, reducing their ability to heal and recover from infections, and potentially increasing the need for medication and extended stays in hospital. It is important that community nurses identify those patients at risk of malnutrition using a validated nutritional screening tool, e.g. the Malnutrition Universal Screening Tool (MUST) (British Association for Parenteral and Enteral Nutrition [BAPEN], 2003), which has five steps:

- **Step 1**: measure height and weight to get a body mass index (BMI) score using chart provided. If unable to obtain height and weight, use the alternative procedures shown in the guide
- **Step 2**: note percentage of unplanned weight loss and score using tables provided
- **Step 3**: establish acute disease effect and score
- **Step 4**: add scores from steps 1, 2 and 3 together to obtain overall risk of malnutrition
- **Step 5**: use management guidelines and/or local policy to develop care plan.

It is also important to perform regular weight checks on any patient with dementia who is suspected of losing too much weight.

**Symptoms of dementia**

The patient’s individual dementia symptoms can also impact directly on nutrition, for example (Addicot, 2014):

- Sensory impairment: such as loss of smell or taste, or changes in taste
- Refusing food due to depression, confusion or paranoia
- Changes in bowel habit such as constipation or loose stools
- Changes in mental state, e.g. the patient may become more irritable or aggressive around mealtimes
- Physical difficulties with chewing or swallowing
- Ill-fitting or missing dentures
- The patient may require assistance at meal times
- Patients may also have difficulty concentrating at meal times and be easily distracted
- Increased wandering may mean that the patient misses mealtimes.

A number of practical strategies, which will vary from patient to patient, can be employed to counteract the above. A systematic review by Hanson et al (2011) demonstrated that high-calorie supplements, modified foods and assisted feeding can support weight gain in individuals with dementia.

In the case of patients being cared for in their own homes, nurses should consider the following:

- Engage with social services to ensure an adequate care package is in place
- Encourage family/carers to keep a reserve of foods that do not require cooking, particularly in the early stages of dementia where the patient is still self-caring. These include cereal, cheese and crackers, preserved meats, fruit, and yoghurts
- Encourage patients and families to use ‘meals on wheels’-type services for hot meals
- Consider local lunch clubs or day centres
- Promote the social element of eating and its importance, such as encouraging the family to visit at meal times
- In the author’s clinical experience, encouraging food-fortification — adding full-fat milk to cereal; spreading toast with butter and jam; adding cream to rice pudding; and adding cheese to soups — can be helpful.

For those community nurses working with patients with dementia in nursing, residential or care homes, management strategies can include:

- Liaising with local dietitians to ensure access to a high-calorie, high-protein menu
- Developing a ‘finger-food’ menu for patients who are too distracted to sit for long periods at meal times, e.g. chips, small sandwiches, biscuits, crackers, cheese, etc
- Providing access to specialist feeding aids such as deep-lipped plates (designed to keep food on the plate), adaptive cutlery, non-slip place mats and large-handled mugs
- Ensuring there is regular training on the links between nutrition and dementia for all staff, including catering staff
- Implementing a ‘protected meal times’ policy that focuses on a calm environment at mealtimes.

In the author’s clinical experience, the management of advanced dementia in particular can benefit from a ‘different’ approach. Ideas to consider include:

- Offer small nutritious meals and drinks at regular intervals
- Allow additional time for meals
- Assist patients who are not fully alert or may be anxious at meal times
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There are many ways to help ensure that patients with dementia increase their nutritional intake:

- Regular snacks or small meals are better than set mealtimes
- Food should look and smell appealing with a variety of tastes, colours and smells
- Look for opportunities to encourage patients to eat, with snacks with afternoon tea or late-night suppers for example
- Provide food that patients actually like
- Small and regular portions often work best
- Food that has gone cold is less appetising — smaller portions keep food warm for longer
- Soft foods such as scrambled egg or mashed potato can help with chewing or swallowing
- Seek advice from a dietitian or speech and language therapist if considering pureed food to make sure it is still nutritious
- Encourage patients to help at mealtimes, preparing food or laying the table, for example.

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times, for example providing support with their posture, using cutlery or in some cases actual feeding (Table 2).

Use specialist feeding aids (as described above) to help maintain patients’ independence at mealtimes.

For those patients who wander or become easily distracted at mealtimes, consider the use of a ‘finger-food’ menu (as mentioned above).

Make use of times of the day such as early mornings when patients may be more alert and able to concentrate on meals.

Consider cooked breakfasts, such as scrambled eggs on toast to increase calorie and protein intake.

Ensure regular access to fluids such as water, juice, squash, ‘milky’ drinks, tea or coffee and regularly prompt patients to drink.

It is important that those community nurses involved in the care of patients with dementia also consider strategies that will specifically help at meal times. In patients with dementia, particularly advanced dementia, overcoming a poor dietary intake requires more than diet advice and calorie supplementation — it may also require consideration of the patient’s physical deterioration; environment and/or particular food types. For example, some patients may become sensitive to foods with mixed textures, e.g. cornflakes with milk; chicken noodle soup; stew with chopped potatoes and meat. It may be worthwhile trying softer single texture food such as mashed potato with cream and butter and porridge-type cereals with whole milk and added jam or honey (Kindell, 2002).

Similarly, community nurses should observe for any visible changes or reported changes in the patient’s ability to swallow. Dysphagia can be a result of behavioural, sensory, or motor problems (or a combination of these) and is common in individuals with neurologic disease such as dementia. Robertson (1996) highlighted that the issue of dysphagia in dementia can be described as ‘an eating problem, often accompanied by a swallowing problem’, i.e. knowing what, when and how to eat in addition to having a delayed or absent swallow reflex.

Often, the challenge that arises in the middle-to-late stage of dementia is the patient ‘pocketing’ food in the mouth and failing to chew sufficiently, which results in an increased risk of choking (Wasson et al, 2001). Kindell (2002) advised that all patients presenting with a change in their swallowing ability should be referred directly and promptly to local speech and language services for an assessment and advice on appropriate food texture modifications and fluid consistency.

On a day-to-day basis, strategies that community nurses can use specifically at mealtimes include:

- Place patient’s hand on the spoon
- Demonstrate to the patient how to eat or undertake hand-in-hand feeding
- Encourage chewing by touching the person’s tongue with a spoon or moving their chin
- Encourage swallowing by gently stroking the person’s throat
- Give verbal prompts using simple clear instructions
- Increase the time allowed for feeding to avoid choking and allow adequate time between mouthfuls

Ensure correct positioning for patient and staff member

Ensure patient position themselves comfortably and correctly, i.e. seated and at right angles to, and in front of, the patient to facilitate eye contact and visual cues from the food.

Ensure patient is seated in an upright position

Environment

Where possible, ask staff/family members who have previously been successful in feeding someone ‘difficult’ to help.

Allow the patient the opportunity to see and smell the food before placing the spoon in their mouth.

Reduce possible agitation around mealtimes by ensuring that the environment is calm and conducive to eating. For example, reducing distractions by turning off the television and ensuring quiet rather than loud music is playing (Cohen-Mansfield et al, 2009).

Patients with dementia may have difficulty recognising cutlery at meal times and/or difficulty coordinating cutlery. Gentle prompting and support such as directing their hands to the cutlery at the start of the meal can be helpful.

Serving food on brightly coloured plates rather than white plates can draw attention to the meal.

Bayer and Reban (2004) highlighted that cutting food into smaller pieces before serving can be helpful.

If a patient wanders away from an unfinished meal, the community nurse should not assume that they dislike the food or have had enough — they may benefit from verbal prompting to come back to the table and/or by being guided towards an empty seat. If this does not work, then it is important to revisit the patient’s dietary requirements, perhaps moving them onto finger-foods to...
ensure that their dietary intake is not compromised (Kindell, 2002).

End of life
Baines (2000) identified that towards the end of life, patients with dementia may express very little interest in food and drink and this can lead to considerable anxiety among caregivers, including nurses, carers and relatives (Baines, 2000). Research in this area is limited and it is difficult to advise on general strategies or recommendations, however Wasson et al (2001) suggested the following:

- Consider whether any disinterest and/or decline in eating is concordant with an overall deterioration
- Exclude the possibility of infections that could be affecting the patient’s cognitive ability and desire to eat, i.e. urinary tract infections — these may require referral to the GP
- If it seems that a patient may be close to dying it is still appropriate to offer small amounts of food and fluids, neither giving up too easily nor trying with undue force.

Each attempt to feed the patient should be written-up in their notes. If death seems imminent, any decision to stop offering food should be discussed with the patient’s family/next of kin and the wider healthcare team and recorded in the notes (British Medical Association [BMA], 1999).

CONCLUSION
The management of nutrition in dementia is complex due to the range of practical approaches and the need to adjust these to each person. Often, a large proportion of the community nurse’s time is spent supporting carers, family and friends at home. It is important to consider their feelings when suggesting any of the strategies discussed above, as they may feel that they are already incorporating them in the patient’s day-to-day life.

In the author’s clinical experience, it is important to focus on 2–3 key elements of advice around nutrition and try to be present for at least one mealtime to appreciate the challenges experienced by families and carers — this will help identify suitable strategies.

For those working in nursing, residential and care homes, it is important that staff are supported with strong leadership to provide a flexible approach to meal times and that suitable menu options such as finger-foods, high-calorie meal plans and nourishing drinks are available for patients with dementia.

REFERENCES