The Mental Capacity Act and the Dental Management of Patients with Dementia

Aims: To give an overview of dementia and the management of dental problems including the Mental Capacity Act and consent to treatment.

Objectives: On completion of this verifiable CPD article the participant will be able to demonstrate, through the completion of a questionnaire, the ability to:

- Be able to define the different types of dementia
- Recall some of the statistics relating to dementia
- Recognise the symptoms of the different types of dementia
- Identify some of the potential dental problems and their management in patients with dementia
- Know the five principles of the Mental Capacity Act (2005)
- Know the principles of how to assess capacity and ability to consent to treatment
- Demonstrate knowledge of the two types of Lasting Power of Attorney

Introduction

Dementia itself is not a disease but is caused by many different diseases. The term ‘dementia’ is used to describe the symptoms that are caused by these diseases. Such symptoms include memory loss, confusion and personality change. Alzheimer’s disease is the most common cause, but other dementias include vascular dementia, dementia with lewy bodies and frontotemporal dementia.¹

In the UK there are over 850,000 people living with dementia. This includes over 700,000 in England, over 45,000 in Wales, nearly 20,000 in Northern Ireland and 70,000 in Scotland. It is projected that by 2025 this number will increase by over one million and by 2050 it is projected to exceed two million.¹ Due to the number of people living with dementia, it is inevitable that dental professionals will be treating patients with dementia. It is therefore important that dental professionals are aware of how to provide dental care for these patients and understand the principles of the Mental Capacity Act and gaining consent for treatment.

This article will describe the changes in the brain and the signs and symptoms of the different types of dementia as well as strategies that can be applied during the treatment of these patients. It will also discuss the Mental Capacity Act and consent to treatment.
The Brain and Dementia

The human brain is incredibly complex. It controls everything our body does, from coordinating our movements and our speech, keeping our heart beating and storing our memories. Dementia occurs when the brain is damaged by disease.

The brain can be divided into different parts:

**The brain stem and cerebellum** - The brain stem controls basic bodily functions such as heartbeat and breathing and the cerebellum controls balance and posture.

**The limbic system** - The limbic system links the brain stem and the cerebral hemispheres. It includes structures with key roles in memory (the hippocampus) and emotions (the amygdala).

**The cerebral hemispheres** - The tissue that makes up three-quarters of the brain is called the cerebrum. It is responsible for consciousness, memory, reasoning, language and social skills.

The cortex of each cerebral hemisphere is divided into lobes and there are four lobes in each hemisphere:

**Occipital lobe** - Deals with visual information

**Parietal lobe** - The parietal lobes are in the upper-rear part of the brain. They mainly handle information from our senses about space, perception and size.
The left parietal lobe allows us to tell our left from our right side and where a limb is in front of us. For example, it helps us to bring a fork up to our mouth when we eat. Damage to this lobe is common in Alzheimer’s disease and can lead to clumsiness (apraxia), for example when putting on clothes. The left parietal lobe also plays an important role in reading, writing and processing numbers.

The right parietal lobe helps us recognise objects as three-dimensional. It also helps us to work out where objects - including moving objects - are in relation to each other, and to ourselves. These abilities are used when we pick an object up. Damage to the parietal lobes can cause someone problems with finding their way around places.

**Frontal Lobes**

The frontal lobes are large and complex. They have a wide range of functions. Overall, the frontal lobes are a kind of 'management centre'. They deal with solving problems, setting goals and making decisions, as well as with starting, carrying out and finishing tasks.

The upper parts of the middle surfaces of the frontal lobes are important for our interest and motivation. Damage here can cause someone to become apathetic, lethargic and reluctant to do things. It is important to realise that they are not 'just being lazy'.

The area on the underside of the front of the brain controls our social behaviour. For example, it normally prevents us from saying something inappropriate or acting on impulse.

At the back of the frontal lobes is the motor cortex. This area deals with the planning of movements and the control of certain muscles, such as when we decide to clap our hands, smile or speak.²

---

![Diagram of the brain showing lobes](image)

The cortex of the cerebral hemisphere is divided into lobes.³
**Memory**

Different things we remember - events, faces, facts or skills - are stored and recalled by different types of memory.

**Episodic memory** is our personal memory of events at a certain time and place. For example: 'I ate eggs for breakfast this morning in my kitchen'. These memories are specific to each of us and can have an emotional aspect.

**Semantic memory** is our general knowledge about objects, word meanings, facts and people. For example: 'Eggs have a shell and are laid by hens'

**Procedural memory** is our memory for skills we have learned. Examples include tying shoelaces, brushing our hair or riding a bike.

These different types of memory involve different parts of the brain working together. They can be affected by dementia in different ways.

**Episodic memory**

Our recollection of an event may have several parts: where we were, what we saw or heard, how we felt, for example. These parts are put together to create the memory. When we experience something, information from our senses initially goes into the hippocampus. Over time, it is thought that the hippocampus begins to transfer memories into long-term storage in the cerebral cortex.

The memory is stored in the cortex as a network of nerve cells. Recent memories, which have just entered long-term storage, still need the hippocampus to retrieve them. However, memories from further back (such as a wedding day) that have been thought about more often, become more firmly established in the cortex. Recall of these memories from longer ago seems to need the hippocampus less. Retrieval of an episode may be triggered by just one part of the memory, such as a particular smell or piece of music.

Emotions have a large influence on what we remember. An experience that is highly emotional is more likely to be stored in long-term memory. We are also more likely to recall the emotional aspects of an experience. The amygdala is the centre for emotional memories.

**Other forms of memory**

The hippocampus is also involved in forming semantic memories. These are then stored as long-term memories in the cerebral cortex.

With procedural memory, we use the frontal lobes to concentrate, allowing us to first learn a skill. But once the skill has been learned it is stored in the basal ganglia (a group of structures between the cerebrum and brain stem), as well as in the motor cortex and cerebellum.²
Emotion and behaviour

How we respond to the world around us - how we feel and how we behave - depends on signals passed between the limbic system (dealing with emotions) and the frontal lobes (dealing with rational thoughts).

Emotions are generated in the limbic system in response to sensory information. For example, our amygdala responds to danger by generating signals for fear.

Emotions are analysed in the frontal lobes. For example, the frontal lobes allow us to check that something really is a threat - perhaps we misread the situation - and so may stop us from reacting aggressively.

In dementia, different forms of damage to these two emotional centres in the brain can cause someone to become either over-emotional or lacking in feelings.²

Types of dementia

Knowing how different types of dementia affect the brain helps explain why someone with dementia might behave in a certain way. The most common types of dementia each start with shrinkage of brain tissue that may be restricted to certain parts of the brain. This means that each type of dementia tends to have particular early symptoms, depending on which part of the brain is affected. Later on, as damage spreads to more areas of the brain, the symptoms across different types of dementia tend to become more similar.² The symptoms of some of the different types of dementia are listed below.
Alzheimer's

In Alzheimer's disease, among the areas often damaged first are the hippocampus and its connected structures. This makes it much harder for someone to form new memories or learn new information. A person with Alzheimer's may struggle to remember what they did earlier that day, or what they have just said, meaning they may repeat themselves in conversation.

The hippocampus is needed for retrieval of memories, but retrieving those from longer ago may depend on it less. This is why someone in the earlier stages of Alzheimer's (with a damaged hippocampus but an intact cortex) may remember a childhood holiday but struggle to remember what they ate for breakfast that morning.

In Alzheimer's disease the amygdala is generally affected later than the hippocampus. So a person with Alzheimer's will often recall emotional aspects of something even if they don't recall the factual content. They may therefore respond more according to how they feel about a place or person than in a more logical way.

Early signs:

- Regularly forgetting recent events, names and faces; regularly misplacing items or putting them in odd places.
- Confusion about the time of day; disorientation, especially away from normal surrounding and getting lost.
- Becoming increasingly repetitive.
- Problems finding the right words; mood or behaviour problems such as apathy, irritability or losing confidence.

As Alzheimer's disease damage spreads through the brain, additional areas and lobes become affected. The cortex overall becomes thinner (so memories from longer ago are lost) and the brain gradually shrinks.

Damage to the left hemisphere is linked to problems with semantic memory and language, so someone may struggle to find the right word for something.

Damage to the visual system in the temporal lobes makes recognising familiar faces and objects harder. The person may seem to forget who a familiar person is. However, because the pathways for vision and hearing are separate, they may still know who that person is once they hear them speak. The person with Alzheimer's disease may also respond to someone at an emotional level even if they seem not to recognise them.

If there is damage to the right parietal lobe then the person might have problems with judging distances in three dimensions. Navigating stairs is a common difficulty.

As it progresses:

- Memory and decision making worsens; communication and language becomes more difficult.
- May become sad or depressed. Anxieties and phobias are quite common.
- Problems with sleeping.
- Anger or agitation.
- May become unsteady on feet.
  - Gradually require more help with daily activities like dressing, toileting and eating.²

**Vascular Dementia**

This is the most common cause of dementia after Alzheimer's. It is possible to have both vascular and Alzheimer's disease which is often referred to as mixed dementia.

- Becomes slower in thinking.
- Personality change including depression, apathy and more emotional.
- Difficulty walking.
- Frequent urge to urinate.
- There may be a sudden change after an event such as a stroke.⁴

**Dementia with Lewy bodies**

- Changes in alertness, attention and confusion which may be unpredictable.
- Parkinson’s disease type symptoms such as slowed movements, muscle stiffness and tremors.
- Visual hallucinations.
- Sleep disturbances.
- Fainting, unsteadiness and falls.⁴

**Frontotemporal Dementia**

This dementia is relatively rare but is the second most common cause of dementia in younger people and usually affect people aged between 30 and 60. Early symptoms depend on which part of the Frontal Lobe is affected first, therefore symptoms can vary but include the following:

- Lack of social awareness- loss of inhibitions; lack of understanding of other people’s feelings; lack of interest or concern; making inappropriate jokes.
- Lack of personal awareness (may affect personal hygiene).
- Changes in food preferences- over eating or over drinking.
- May change their humour, sexual behaviour, become violent, develop unusual beliefs, interests or obsessions.
- Difficulty with simple plans and decisions.
- Difficulty saying or understanding words.
- Difficulty in recognising people or knowing what objects are for.⁵
Dementia and Consent to Treatment

A patient with dementia should be given the opportunity to make, or take part in, decisions about their dental treatment.

The Mental Capacity Act (2005 and updated in 2007) is designed to protect and empower individuals who may lack the mental capacity to make their own decisions about their own care and treatment. It is a law that applies to individuals aged 16 and over. Everyone involved in the care, treatment and support of people aged 16 and over in England and Wales, must comply with the Act when making decisions or acting for that person, when the person lacks capacity to make a particular decision for themselves.

In Scotland, the relevant legislation is the Adults with Incapacity (Scotland) Act 2000 and in Northern Ireland the Mental Capacity Act (2016) came into force on 9th May 2016. (The documents for Scotland and Northern Ireland can be accessed from the non-verifiable CPD section of the website and should be read in conjunction with this part of the article).

Principles of the Mental Capacity Act (MCA) (2005)

The Act sets out the five ‘statutory principles’ – the values that underpin the legal requirements in the Act. The Act is intended to be enabling and supportive of people who lack capacity, not restricting or controlling of their lives. It aims to protect people who lack capacity to make particular decisions, but also to maximise their ability to make decisions, or to participate in decision-making, as far as they are able to do so.

- **Principle 1.** A presumption of Capacity - every adult has the right to make his/her own decisions and must be assumed to have capacity to do so unless it is proved otherwise.

- **Principle 2.** Individuals being supported to make their own decisions - people must be given all appropriate help before anyone concludes that they cannot make their own decisions.

- **Principle 3.** Unwise decisions - People have the right to make decisions that others might regards as being unwise or eccentric and a person cannot be treated as lacking capacity for these reasons.

- **Principle 4.** Best interests - any decisions made or anything done for or on behalf of a person who lacks capacity must be done in their best interests.

- **Principle 5.** Least restrictive alternative - anything done for or on behalf of people without capacity should be the least restrictive of their basic rights and freedoms.
How is mental capacity determined?

The MCA is supported by practical guidance known as the “Code of Practice”. The Code of Practice sets out a two-stage test of capacity:

1) Does the individual concerned have an impairment of, or a disturbance in the functioning of, their mind or brain, whether as a result of a condition, illness, or external factors such as alcohol or drug use?
2) Does the impairment or disturbance mean the individual is unable to make a specific decision when they need to?

Individuals can lack capacity to make some decisions but have capacity to make others, so it is vital to consider whether the individual lacks capacity to make the specific decision.

Capacity can fluctuate with time - an individual may lack capacity at one point in time, but may be able to make the same decision at a later point in time. Where appropriate, individuals should be allowed the time to make a decision themselves.

An example of this would be a patient with dementia may have more mental clarity early in the day, so appointment times should be tailored to accommodate this factor. Or, they may arrive at the practice and a carer could state that they are having a particularly poor day and in this case it may be appropriate to rearrange the appointment.

The MCA states that a person is not able to make a decision in relation to a particular matter if they are unable to:

- Understand the information relevant to the decision
- Retain the information
- Use or weigh up the information as part of the process of making the decision
- Communicate their decision either by using speech, sign language, eye blinking, pointing or any other means including squeezing of hands.

Best Interests - Decisions

If someone is found to lack the capacity to make a decision and such a decision needs to be made for them, the MCA states the decision must be made in their best interests.

The MCA sets out a checklist of things to consider when deciding what's in an individual's best interests. It says you should:

- Encourage participation – do whatever is possible to permit or encourage the person to take part in making the decision.
Identify all relevant circumstances – try to identify the things that are important to the person if they were making the decision themselves.

Find out the person’s views – including their past and present wishes and feelings, and any beliefs or values. With regard to dental treatment examine the person’s previous history of dental treatment that they have consented to in the past.

Avoid discrimination – do not make assumptions about the person’s best interests on the basis of age, appearance, condition or behaviour.

Assess whether the individual might regain capacity – if they might, could the decision/treatment be postponed?

Consulting with others is a vital part of best interest decision-making. However, consideration needs to be given to:

- Data Protection Act 1998
- Confidentiality Policy
- Human Rights Act 1998
- Equality and Diversity Act 2010
- Professional codes of conduct

It is very important that all discussions regarding consent are carefully documented in the patient’s dental records.

### Power of Attorney

A Lasting power of attorney (LPA) is a legal document which appoints someone to make decisions on the behalf of someone else. There are two types:

1) **Health and Personal Welfare for England, Scotland and Wales (called a Welfare Power of Attorney in Scotland)** - decisions about whether to receive healthcare or stop a healthcare treatment, moving into a nursing home, where to live. This can only be used when the person is unable to make their own decisions at that particular time. There is no equivalent to a welfare Power of Attorney in Northern Ireland. However this is being revised as part of the Mental Capacity Bill. This means that the lasting Power of Attorney in Northern Ireland (changed from enduring Power of Attorney) will soon cover health and welfare as well as financial matters.

2) **Property and Financial Affairs** - paying bills, collecting benefits, selling a home affairs. This LPA can be used as soon as it is registered with the person’s permission.8

A person may have one or both types of LPA. The following factors should be considered:

- The person must have capacity when they make their LPA
Next of kin do not automatically have the right to make treatment decisions and hired carers almost certainly do not.

- LPA cannot override the patient’s decision if they are felt to be competent at the point of decision.
- Even if there is an LPA, always follow the Five Principles of the MCA.

**Treatment of Patients with Dementia**

People with dementia are likely to have a unique set of factors that compromise oral health and increase the risk of dental disease. Patients with dementia may experience some of the following difficulties:

- Manual dexterity may decrease
- Medications may have a high sugar content or cause dry mouth (xerostomia)
- They may be less able to understand that their teeth need to be kept clean.
- They may not be able to express that they are in pain
- They may not feel pain so the following may go unnoticed:
  - Lumps and ulcers
  - Poor fitting dentures
  - Decay

Research has shown that people with dementia experience significantly poorer gingival health and significantly heavier gingival bleeding than those without the condition. In addition, a small observational study published in March 2016 concluded that gum disease is associated with an increase in cognitive decline in Alzheimer’s disease, possibly by mechanisms linked to the body’s inflammatory response. However it is recognised that clinical trials are required to provide more solid evidence.

In the dental surgery we should:

- Be patient
- Explain in simple terms. Short sentences that are phrased in a way where a person can give ‘yes’ and ‘no’ answers, can be effective
- Recommend an electric toothbrush or one with an adapted handle as manual dexterity decreases
- Advise carers on how they can brush the patient’s teeth
- Give easy to read information
- Use visual supports
- Arrange an appointment at the best time of the day for the patient.

Further information on treating patients with dementia can be accessed from the non verifiable CPD section of the website.

**Conclusion**

The number of people living with dementia is projected to rise considerably in the coming years. Due to the number of people living with dementia, it is inevitable that dental professionals will be treating patients with dementia. It is therefore important that dental professionals are aware of how to provide dental care for these patients.
and understand the principles of the Mental Capacity Act and gaining consent for treatment.

**Portfolio tip**

We would like to acknowledge the Alzheimer's Society for allowing us to reproduce their information on the brain and Alzheimer's. Further information can be found on their website at: alzheimers.org and can also be accessed from the non verifiable CPD section of the website.

We also recommend that you access the following information as appropriate from the non verifiable section of the website:

- Mental Capacity Act Code of Practice
- The Mental Capacity Act (2005)
- Adults with Incapacity (Scotland) Act 2000
- The Mental Capacity Act (Northern Ireland) (2016)
- Principle Three of the GDC Standards: Obtain Valid Consent
- Dental Care and Oral Health

Don’t forget to log the hours you spend reading into your non-verifiable CPD log.

**References**
