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ASSESSMENT 1

MENTAL DISORDER AND PSYCHOPATHOLOGY

(BMHP6006_LON)

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Contents

Definition	3
Who is affected by Dementia in Alzheimer disease?	3
Causes.....	4
Symptoms/signs	5
Diagnosis.....	5
Current treatment	7
Principles when working with people with Dementia in Alzheimer disease.	8
Principle 1: Principles of Person-Centred Care	8
Principle 2: Involving People in Decision-Making and advance care planning	8
Principle 3: Detailing, Privacy and Confidentiality.....	9
Recommendation	9
Conclusion.....	10
References	11
APPENDIX.....	13

Definition

According to ICD (2019), dementia (F00-F03) presents itself as a syndrome caused by a disease of the brain, most often of a severe or progressive nature, accompanied by a disruption and disturbance of different complex and higher cortical functions which covers learning capacity, comprehension, memory, judgement, language, calculation, orientation and thinking. Most important is the specific fact that consciousness is not in any way clouded.

The malfunctioning of these cognitive functions are most times preceded or other times accompanied by a disturbance and deterioration in motivation, social behaviour, or emotional control. This known syndrome usually manifests in cerebrovascular disease, Alzheimer disease, and in different other conditions directly or indirectly affecting the brain.

The universally acknowledged ICD-10 and DSM-IV diagnostic criteria highlights the most frequently encountered subtypes of dementia which includes dementia with Lewy bodies, vascular dementia, Alzheimer's disease, and frontotemporal dementia ICD (2019). Amongst these aforementioned subtypes, the most common dementia is dementia in Alzheimer's disease which accounts for 60-80% of the entire population living with dementia.

According to Reitz C et al 2011 this form of dementia is distinguished from others as it shows a steady deterioration in cognitive function which often times begins with decline in memory. It is a main degenerative cerebral disfunction of an unknown origin with known and evident neurochemical and neuropathological features which is insidious at beginning but develops slowly and steadily over the years.

Who is affected by Dementia in Alzheimer disease?

According to Bature F et al 2017, dementia in Alzheimer disease could happen before one is up to age 65 and this is widely known as early-onset AD (Alzheimer disease) (EOAD), and generally, this might be inherited or rare.

Other times, individuals above age 65 are affected by this syndrome and this is termed late-onset AD (LOAD), and it accounts for 90% of all Alzheimer disease. Usually with

individuals in their late 70s or older and is accompanied by slow but progressive memory impairment which is the primary feature.

Causes

According to NIA 2021 Generally, in recent times, scientists have recorded amazing progress as to understanding Alzheimer diseases and the progress continues to thrive and grow. However, scientist as still in the dark as to fully comprehending the actual cause of the disease. In individuals who develop Alzheimer disease before age 65 (early-onset Alzheimer) the major cause is said to be genetic mutation, on the other hand late onset Alzheimer disease originates from multiple series of brain alteration that may occur an extended period of time. The causes of this would mostly likely include a mix of lifestyle, environmental, and genetic factors.

The primary cause of Alzheimer disease is majorly thought to be the irregular build up and accumulation of amyloids and tau proteins. With the amyloid deposition (plaques) happening around the brain cells and tau tangles accumulations inside the brain. As the brain cells gets affected in Alzheimer disease, there is also a noticeable decrease in neurotransmitters which are mostly known as chemical messengers involved in sending signals or messages between cells of the brain NHS 2021.

There is a general decrease in the levels in acetylcholine, neurotransmitter in the brains of individuals with Alzheimer disease. At this state neurons which were once active become dysfunctional and after this, they lose connection with other neurons and then eventually dies. This damage first appears to occur in the entorhinal cortex and hippocampus (parts of the brain that are necessary for the formation of memories). As the number of dead neurons increases, other parts of the brain get affected and start shrinking. Damage becomes extremely severe and the brain tissues shrunk significantly during the last phase of Alzheimer disease. NIA 2021

Symptoms/signs

According to NHS 2021 Dementia in itself is not a disease, it is a combination of symptoms that originate from destruction to the brain cells caused by several diseases, Alzheimer disease inclusive and the symptoms varies with respect to the part of the brain involved.

Symptoms specific to dementia in Alzheimer disease.

In most individuals with Alzheimer diseases the symptoms appear first later in life. Most occurring symptoms of Alzheimer disease include:

- i. Memory disability which covers difficulty in remembering happenings, events and occurrences
- ii. Finding it hard to concentrate, solve problem or make plans
- iii. Difficulties in handling simple tasks which could include handling of eating utensils or writing
- iv. Inability to track location or time
- v. Visual and/or space difficulties (difficulties in comprehending distance while driving, misplacing items or getting lost)
- vi. Difficulties in finding words or expressing reduced writing or speech vocabulary
- vii. Poor decision making and judgements
- viii. Withdrawal, both from social engagement and work functions
- ix. Mood swings, depression, anxiety and other personality and behavioral changes

Diagnosis

According to NHS 2021, there is no singular, simple and reliable diagnosis method for Alzheimer disease. However, individuals with the disease as well as their families are listened to at arrival to a mental clinic, this is to get acquainted with the individual's issue as relating to thinking and memory. At this stage, memory, thinking and other areas of mental capacities are accessed. These mental tests check for concentration and attention

span, abilities related to vision (visuospatial abilities), awareness of time and place (orientation), short- and long-term memory, language and communication skills.

If there is need for more test to rule out several other diseases with same symptoms as those of Alzheimer dementia (e.g., in cases of vitamin B-12 deficiency or thyroid disorder) and ascertain the type of dementia in display, then the patient/individual is asked to do other tests.

Further tests specific for Alzheimer disease

1. Fluorodeoxyglucose-Positron Emission Tomography-CT (FDG-PET), in cases where this is not available, perfusion Single-Photon Emission CT (SPECT) can be performed
2. Cerebrospinal fluid (CSF) test/examination is required to further investigate or diagnose the condition. This is because the two proteins seen in cases of Alzheimer's disease (tau and Amyloid proteins) can be accurately estimated and measured in the cerebrospinal fluid and the ratio of the two proteins can tell whether or not the disease is present in an individual NHS 2021.

While doing a cerebrospinal fluid test, the following should be estimated: total tau or total tau and phosphorylated-tau and amyloid beta or amyloid beta 1–42 and amyloid beta.

These two tests can be done independent of each other, if the first doesn't give expected result, the other should be done to ascertain whether or not the individual has Alzheimer disease. However, the disease cannot be ruled out after conducting only MRI or CT scans and it is worthy of note that Apolipoprotein E genotyping or electroencephalography cannot and should not be used for Alzheimer's disease diagnosis NICE, 2018.

Current treatment

According to NHS 2021 currently, there is no absolute cure/solution for Alzheimer disease. Nonetheless, medicines have been readily made available to temporarily manage/reduce the symptoms that accompanies the disease. This treatment methods or medicines temporarily makes symptoms such as difficulties with thinking and reasoning as well as memory loss. It enhances performance of the different chemicals responsible for information transmission between brain cells. But it is worthy of note that these treatment methods do not distort or inhibit the progressive degradation and death and more increase in the number of death cells equals progressive Alzheimer disease.

Support system is also readily made available to aid anyone with the condition and to help their families go on with the everyday life and activities.

The main medicines generally used include:

Acetylcholinesterase (AChE) inhibitors

Drugs generally known as acetylcholinesterase inhibitors are used for the treatment of Alzheimer disease examples of these are rivastigmine and donepezil galantamine and this is normally recommended for people with early or mid-stage Alzheimer disease.

Other drugs that can be used in cases of Alzheimer's disease includes

- a. Memantine
- b. Antidepressants which are mostly prescribed and administered if depression is suspected to be the main cause of the anxiety symptom in the individual.
- c. Cognitive Stimulation therapy (CST) IS ALSO PRESCRIBED AND ADMINISTERED AND it involves partaking in exercises and activities within a group and this is designed to enhance and improve problem-solving skills and memory. This helps by allowing the individual use the parts of the individual's brain that are working while helping those that are dysfunctional.
- d. Reminiscence and life story work

Principles when working with people with Dementia in Alzheimer disease.

The most complex and essential aspect of Alzheimer disease is that of providing support and care for affected individuals. This is solely because the number of people living with the disease increases per time and there is a wide variation in the symptoms experienced by these individuals and this has resulted to the variation in health practices in regards to Alzheimer disease NICE (2018).

Principle 1: Principles of Person-Centred Care

This principle supports good medical practice in dealing with dementia. This principle covers for:

- i. The human value of the individual diagnosed with dementia, his carers and families regardless of the cognitive impairment manifested or age. people
- ii. The difference, disparity and uniqueness of each person with dementia, and the way their life experiences and personality affect their response to the syndrome.
- iii. The essentiality of the person's view point
- iv. The importance of allowing interaction between the individual with dementia and people in the environment.

Principle 2: Involving People in Decision-Making and advance care planning

Involving the affected individual in decision making process is important practice while dealing with people with dementia. The individual is encouraged to give his/her opinion on the treatment method and their care in general. If necessary, enhanced ways of communication can be used to enable the individual understand better and this includes the use of simplified texts as well as visual aids.

The process of choosing treatment/management pattern or methods, drug types, activities pattern working groups as well as medication modification should be done by both the care giver and the individual living with dementia.

Principle 3: Detailing, Privacy and Confidentiality

After diagnosis is completed, detailed information should be issued out to the patient, his family or careers and any other person he or she would love to share with. And like with every other health related issue and care methods, this information is only to be given out based on agreement of the patient or his family consents.

Recommendation

With respect to the report put together and published by the Alzheimer's Society which confirms that in 2013 there were approximately 815,000 individuals living with dementia in the UK and stipulating that if existing pattern continue, the number is expected to get up to 1,143,000 by 2025, one should be aware that the best way to manage this is to establish the best support system and get the health care sector ready for future predictions.

With backing from NICE 2018 I do recommend that an individual who is diagnosed and ascertained to be living with dementia should be given a specific health and social care practitioner/professional who should be fed with all the details pertaining to the patient, his health state, his family background and treatment method agreed.

I also do recommend that service providers design services and systems which are accessible as possible to people living with dementia. And at all points, activities provided should be based on the individual's preference.

Finally, as established earlier, everyone reacts to Alzheimer disease differently I recommend that no established case is treated as same, when an individual is diagnosed, different therapies should be looked into before administration and individuals should be dealt with care and affection.

Conclusion

Dementia in Alzheimer disease is disturbing for patients, their carers and families. It is evident that the cure for this disease is yet to be found but relieving enough, the current symptomatic treatments methods and system has offered hope to individuals living with dementia. It is important to commence early and accurate diagnosis of this disease so that proper treatment occurs in due time and most importantly, management of Behavioral and Psychological Symptoms of Dementia (BPSD) should be patient and carer centered, making full use of the different ranges of non-pharmacological treatments available. In addition, drugs prescription for BPSD should at no point be automatic but instead should be considered with optimum carefulness.

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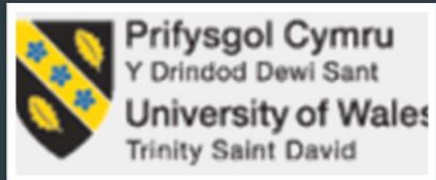
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APPENDIX

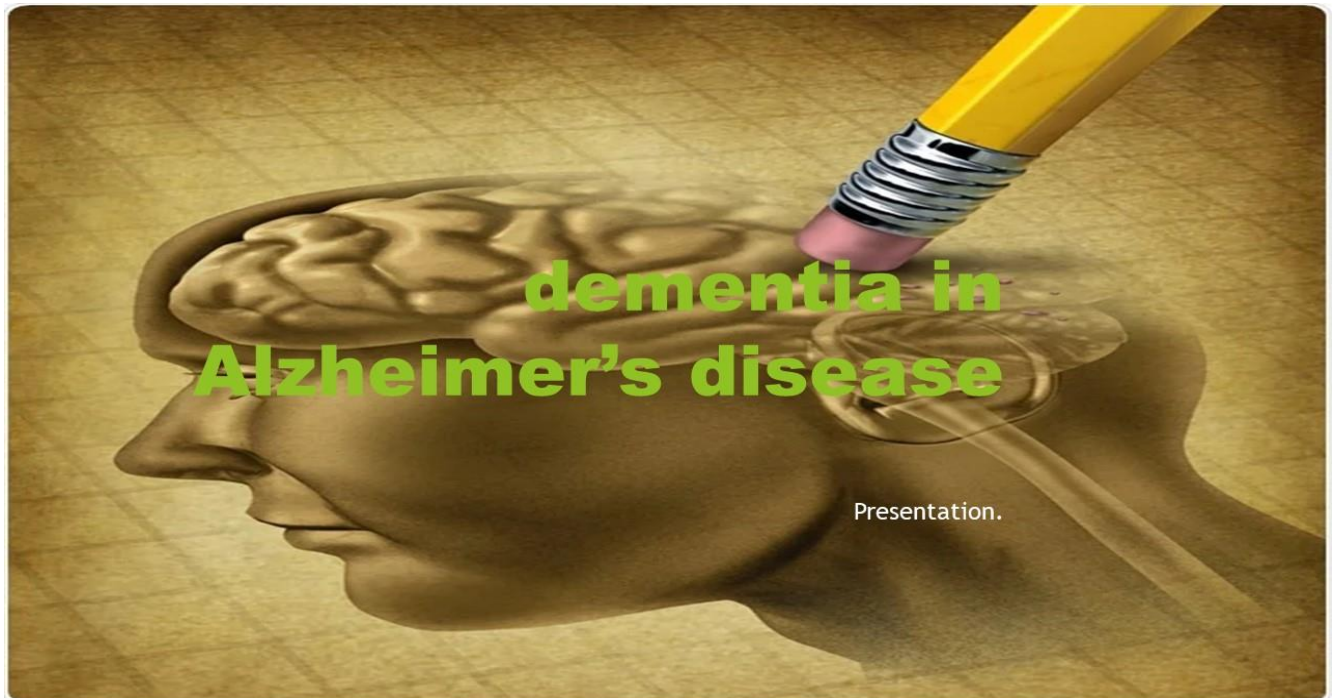


Assessment Component 1 Presentation

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Mental Disorder and Psychopathology (BMHP6006_LON)

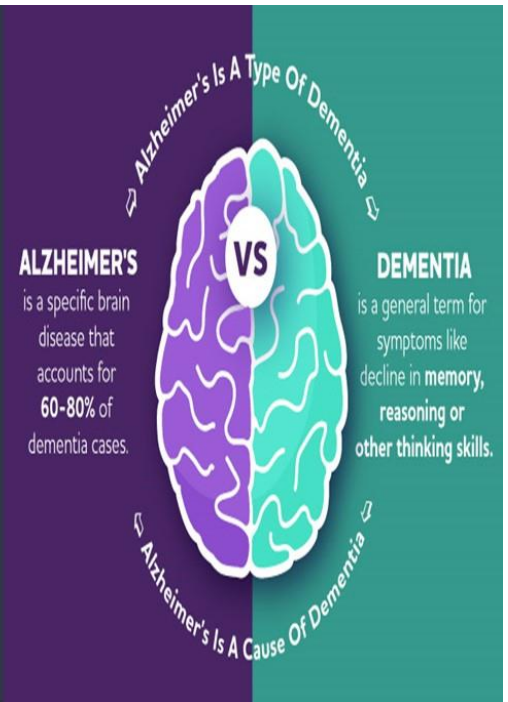


dementia in Alzheimer's disease within the ICD-10 manual

- ▶ Group: **Organic, including symptomatic, mental disorders (F00-F09)**
- ▶ Classification: **F00** - dementia in Alzheimer's disease

Definition

- ▶ According to ICD (2019), dementia (F00-F03) presents itself as a syndrome caused by a disease of the brain, most often of a severe or progressive nature.
- ▶ It is accompanied by a disruption and disturbance of different complex and higher cortical functions which covers learning capacity, comprehension, memory, judgement, language, calculation, orientation and thinking.
- ▶ Amongst the subtypes, the most common dementia is dementia in Alzheimer's disease which accounts for 60-80% of the entire population living with dementia.



Who is affected by Dementia in Alzheimer disease?

- ▶ According to Bature F et al (2017), dementia in Alzheimer disease could happen before one is up to age 65 and this is widely known as early-onset AD (Alzheimer disease) (EOAD), and generally, this might be inherited or rare.
- ▶ Other times, individuals above age 65 are affected by this syndrome and this is termed late-onset AD (LOAD), and it accounts for 90% of all Alzheimer disease. Usually with individuals in their late 70s or older and is accompanied by slow but progressive memory impairment which is the primary feature.

Causes

- ▶ In individuals who develop Alzheimer disease before age 65 (early-onset Alzheimer) the major cause is said to be genetic mutation
- ▶ on the other hand late onset Alzheimer disease originates from multiple series of brain alteration that may occur an extended period of time and the causes of this would mostly likely include a mix of lifestyle, environmental, and genetic factors.



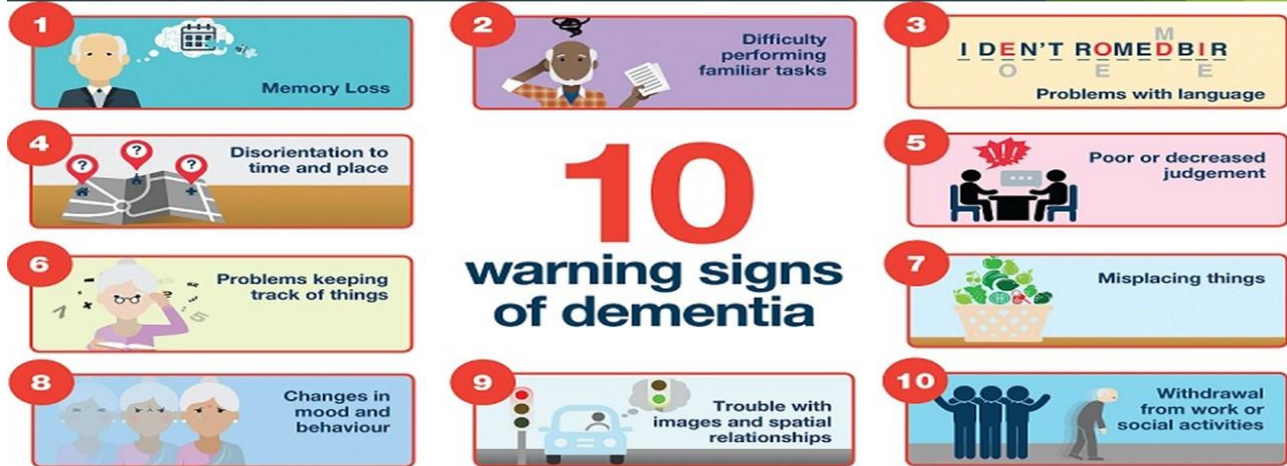
Source: Livingston et al. A, et al. Dementia prevention, intervention, and care: 2020 report of the Lancet Commission

www.alzint.org



Symptoms/signs

► Symptoms specific to dementia in Alzheimer disease NHS 2021.



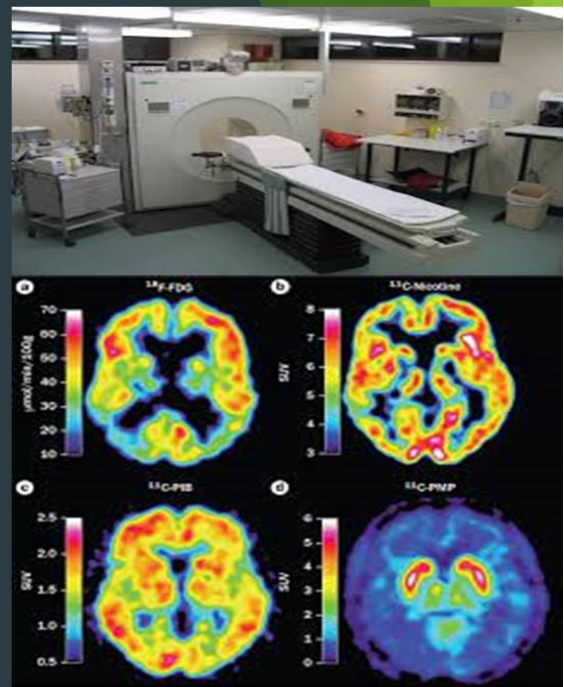
@AlzDisInt
Alzheimer's Disease International

**Dementia is not a part of normal ageing.
Talk to a doctor or contact the
Alzheimer association in your country.**

**Alzheimer's Disease
International**
The global voice on dementia

Diagnosis

- According to NHS 2021, there is no singular, simple and reliable diagnosis method for Alzheimer disease.
- Memory, thinking and other areas of mental capacities are first accessed
- If there is need for more test to rule out several other diseases with same symptoms as those of Alzheimer dementia (e.g., in cases of vitamin B-12 deficiency or thyroid disorder) then the Fluorodeoxyglucose-Positron Emission Tomography-CT (FDG-PET), perfusion Single-Photon Emission CT (SPECT) or Cerebrospinal fluid (CSF) test/examination is done NICE, 2018.



Current treatment

- ▶ According to NHS (2021) currently, there is no absolute cure/solution for Alzheimer disease. Nonetheless, medicines have been readily made available to temporarily manage/reduce the symptoms that accompanies the disease.
- ▶ The main Treatments currently in use are:
- ▶ Acetylcholinesterase (AChE) inhibitors
- ▶ Memantine
- ▶ Antidepressants
- ▶ Cognitive Stimulation therapy (CST)
- ▶ Reminiscence and life story work

COMMON TREATMENTS FOR ALZHEIMER'S

CHOLINESTERASE INHIBITORS

These drugs are used in early Alzheimer's to boost levels of a neurotransmitter that plays a role in memory formation and sleep.



NAMENDA

This drug blocks the neurotransmitter glutamate, helping to boost attention, mood and alertness in patients with moderate to severe cases.



NAMZARIC

For people whose current treatment needs a boost, this combo drug contains a cholinesterase inhibitor and Namenda to help improve thinking.



FUTURE TREATMENT

Monoclonal antibodies are currently under investigation and may help immune cells learn to target and clean up the damaging proteins in the brain.



@healthcentral

Principles when working with people with Dementia in Alzheimer disease.

- ▶ Principle 1: Principles of Person-Centred Care
- ▶ Principle 2: Involving People in Decision-Making and advance care planning
- ▶ Principle 3: Detailing, Privacy and Confidentiality
- ▶ NICE (2018)



Recommendation

- ▶ With backing from NICE (2018) I do recommend that an individual who is diagnosed and ascertained to be living with dementia should be given a specific health and social care practitioner/professional who should be fed with all the details pertaining to the patient, his health state, his family background and treatment method agreed.
- ▶ I also do recommend that service providers design services and systems which are accessible as possible to people living with dementia. And at all points, activities provided should be based on the individual's preference.
- ▶ Finally, as established earlier, everyone reacts to Alzheimer disease differently I recommend that no established case is treated as same, when an individual is diagnosed, different therapies should be looked into before administration and individuals should be dealt with care and affection.

Conclusion

- ▶ Dementia in Alzheimer disease is disturbing for patients, their carers and families. It is evident that the cure for this disease is yet to be found but relieving enough, the current symptomatic treatments methods and system has offered hope to individuals living with dementia.
- ▶ It is important to commence early and accurate diagnosis of this disease so that proper treatment occurs in due time and most importantly, management of Behavioral and Psychological Symptoms of Dementia (BPSD) should be patient and carer centered, making full use of the different ranges of non-pharmacological treatments available.
- ▶ In addition, drugs prescription for Behavioural and psychological symptoms of Dementia (BPSD) should at no point be automatic but instead should be considered with optimum carefulness.



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