

Alzheimer Disease and Related Dementias

Defining Generic Key Terms and Concepts

- **Mild cognitive impairment:**

(MCI) is a state of progressive memory loss after the age of 50 that is beyond what would be expected as part of normal aging but does not meet the criteria for a diagnosis of dementia (Peterson et al., 1999). People with MCI demonstrate evidence of memory deficits that are abnormal for their age and educational level, presence of otherwise normal general cognitive function, normal performance of activities of daily living.

- **Dementia**

Dementia is a pervasive deterioration of intellectual ability that occurs over an extended period of time. Memory loss is the symptom most common in dementia and is typically the first cognitive change noticed by patients and families. Dementia also affects an individual's; orientation to space and time; language functioning; ability to think abstractly and solve problems; power to evidence good judgement; visual and spatial ability; and personality. Causes of dementia are often difficult to determine, however they are often characterized according to the disease that is suspected of causing the dementia.

- **Forms of degenerative dementia:**

--*Alzheimer's Disease:* AD is the most common cause of dementia, representing 60 – 70 percent of all cases (Reuben, et al., 2001). The evidence is mixed, but early studies indicate that a specific gene (APOE) may account for 10 – 40 % of all cases of AD. The gene appears to be responsible for early onset AD (ages 50 – 75). Women with this gene are at higher risk of contracting AD than men are.

--*Parkinson's Disease:* This disease is associated with the brain's loss of a chemical called *dopamine*. Up to 40% of individuals with Parkinson's disease develop dementia, with impairment primarily in executive functioning (planning, problem solving, abstract thinking) and visual-spatial processing (Emre, 2003).

--*Dementia with Lewy Bodies (DLB):* This is associated with abnormal structures (*Lewy bodies*) in the brain and is less well understood than other forms of dementia. DLB is also associated with a combination of symptoms of Alzheimer's disease (confusion, attention problems) and Parkinson's disease (motor problems) as well as

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visual hallucinations. It is estimated to represent approximately 15 – 35% of all cases of dementia.

--**Vascular Dementia:** is caused by small strokes that decrease blood flow to the brain. It is the second most common form of dementia, representing 15 – 20% of all cases.

Other Forms of dementia:

- *infectious:* as may be caused by AIDS
- *metabolic:* as may be caused by thyroid disease or vitamin B-12 deficiency
- *toxic:* from alcohol, drug, or heavy-metal exposure
- *depression-related (pseudo dementia):* dementia like symptoms in the context of a depressive episode
- *medication induced:* the most common cause of reversible dementia in the elderly if detected early.
- *traumatic:* for instance head injury
- *other:* brain tumour or subdural haematoma

During the course, as a PROFESSIONAL, you should be listening for the following:

- **Warning signs of Alzheimer's:**
 - Gradual memory loss, especially short term memory
 - Loss of ability to make logical decisions
 - Difficulty making a connection between what they see and what the images mean
 - Less and less ability to learn new things
 - Disorientation (getting lost/confused)
- **AD behaviours to watch for:**
 - Constant movement with seemingly little purpose (pacing and rummaging)
 - Changes in sleep patterns (typically getting up in the night)
 - A short term temper, with anger often directed at the caregiver
 - Fear of being alone, the dark
 - A noticeable decline in personal grooming

- **How to work with people with AD:**

It is important to understand a number of communication strategies that will help you and the family members of the person with Alzheimer's improve interactions with the AD individual. People with dementia experience increasing difficulty expressing their needs, concerns, and even memories. They may use incorrect or inappropriate words or say the first thing that comes into their mind. When inappropriate remarks are made, you should remember that such remarks reflect a disease process. As a PROFESSIONAL you must also be attentive to nonverbal signals given by people with dementia. Although people with dementia may not be able to say that they

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are cold, tired, hungry, or in pain, there are nonverbal ways that may convey this information. Look for shivers or grimaces of pain, for example.

▪ **The communication ‘do’s and don’ts when working with persons with AD:**

Nonverbal communication to the AD individual is also important. The way an individual with dementia or AD is approached can positively or negatively affect interaction. For example, approaching someone in the late stages of dementia with a smile and soothing voice increases the likelihood that they will be relaxed and open to communicating. Appearing or sounding angry can be very threatening and cause the individual to become frightened or agitated. Even though the persons’ behaviour is frustrating to you, remain calm and express anger elsewhere. Other helpful techniques may include the following:

- Approach the person from the front and maintain eye contact at all times
- Speak and move slowly
- Tell the individual who you are and why you are there
- Particularly in the early stages when deficits are minimal (and some well into the middle stage), speak directly to the individual rather than directing questions to the caregiver only. This helps to maintain dignity and demonstrates respect for the older adult. Directing questions to the person with dementia in the presence of the caregiver will give the caregiver the opportunity to clarify any misinformation.
- Minimize distractions, particularly when giving instructions
- Use few words, and words that are familiar to the individual
- Ask one question at a time or give one step of instruction at a time
- Ask questions that don’t require memory or complicated reasoning
- Ask yes/no questions when possible
- Allow adequate time to respond
- Repeat questions using the same words. If there is still no response, try rephrasing.
- Remain calm, particularly if the individual becomes agitated. Responding to agitation with upset only escalates the situation.
- Use nonverbal communication such as smiles, nods, and gestures. Be careful with touch. Individuals with dementia need touch as much as before the onset of the illness, but cultural traditions and personal preferences, along with fear of strangers, may limit the amount of touch that the individual with dementia can tolerate.
- If a person is involved in repetitive behaviour, you may in this instance, see distraction to minimize or distract from inappropriate or unwanted behaviour.

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Additional Thought-Provoking Questions

Because there are so many possible causes of cognitive problems, the following evaluations need to be completed to increase the likelihood of an accurate diagnosis:

Medical History, Mental Status, Neuropsychological, physical, magnetic resonance imaging (MRI) of the brain, laboratory tests such as blood and urine tests and a psychiatric evaluation

List some of the treatments for Alzheimer's Disease.

Medications: These do not cure the disease but if administered early enough in the disease process, may help to control symptoms and delay the progression of the disease. Approximately 50% of patients benefit from these drugs, with effects lasting for between one and two years. These patients sometimes see an abrupt decline in functioning if the medication is discontinued. Changes in medication should always be coordinated with a physician. Medications are often used in managing the behavioural symptoms of dementia.

Psychotherapy and Behavioural Intervention: Psychotherapy may be helpful for individuals coping with the impact of losses associated with Alzheimer's disease. Processing the emotional issues tied to coping with dementia has been shown to be effective in reducing symptoms of depression, improving self esteem, and preparing for future losses. Many family and professional caregivers become frustrated with inappropriate behaviours shown by persons with Alzheimer's disease. The inappropriate behaviour may be the result of difficulty expressing feelings, controlling impulsive reactions, and solving problems.

Management of Other Health Concerns: Unfortunately, medical conditions that could be improved may be overlooked in people with dementia. This is especially true when a cognitively impaired person can no longer communicate that something is wrong. Proper medical evaluation and treatment can help ensure that an individual with Alzheimer's disease will be able to function at a high level while avoiding pain or other complications that can be caused by a treatable condition. In addition to treating acute illnesses, it is important to make sure that chronic health conditions, including visual and hearing impairments, are treated. Sensory impairments can exacerbate cognitive problems of individuals with dementia, and simply wearing glasses or a hearing aid may greatly enhance functional ability. Good nutrition, proper hygiene, and appropriate dental care can become enormous challenges in caring for cognitively impaired individuals. Attention to these elements of personal care are necessary to maintain energy and stamina and to promote resistance to infection and aid in wound healing.

List the common symptoms of early stage Alzheimer's Disease:

Progressive memory loss, mild difficulty finding words, misplacement of things, disorganization, mild problems with judgement and abstraction, sleep difficulty, loss of spontaneity and initiative, social withdrawal, delusions (most commonly about others trying to steal from or hurt the individual), depressive symptoms.



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Studies have shown that caregivers of people with dementia have suppressed immune systems and increased rates of infectious illness, and a higher prevalence of major depressive disorder than non-caregivers.

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Review Questions

1. Some cognitive changes do occur as a normal part of growing older. These changes include all EXCEPT which of the following:
 - A. The speed of mental processing declines as people age
 - B. Seniors become confused and disoriented frequently
 - C. Seniors may be less able to “store” new information
 - D. Reaction time is slowed as people age

2. Which statement accurately describes the Middle Stage of Alzheimer’s?
 - A. Family members, friends and caregivers are no longer recognized
 - B. Swallow reflexes, muscle control and the ability to speak are lost
 - C. Routine tasks that were once easy become difficult and personal items are often misplaced
 - D. Over a period of 2-10 years, communication skills, reasoning and attention to personal hygiene diminish

3. Which of the following is a useful technique for communicating with a person who has Alzheimer’s Disease?
 - A. Avoid speaking directly to the person with Alzheimer’s Disease. Instead, address comments and questions to their caregivers
 - B. Avoid eye contact
 - C. Use distraction to minimize inappropriate or unwanted behaviour



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Answer Guide to Review Questions:

Alzheimer Disease and Related Dementia:

1. b
2. d
3. c