UNDERSTANDING ALZHEIMER’S AND OTHER DEMENTIAS
Latin origin: *demens* or out of mind

**DEFINITION:** Loss of multiple intellectual functions over time
Epidemiology of Dementia

- 5.4 million Americans with Alzheimer's
- 5.2 million people are age 65 and older
- 200,000 individuals are under age 65 (younger-onset Alzheimer's)
- Alzheimer’s is the sixth leading cause of death
Estimated that approximately 14 million Americans will have the disease in 2050

Nearly 1 in 3 seniors who die each year has some form of dementia

In Alabama, over 89,000 people suffer from dementia.

Dementia afflicts both men and women in all racial, religious, and socioeconomic groups.
Impact on Caregivers

* In 2015 15.9 million caregivers provided 18.1 billion hours of unpaid care
* Approximately two-thirds of caregivers are women with thirty-four percent age 65 and older
* 41 percent have household incomes of 50,000 or less
* 60% of caregivers report emotional stress as high or very high
* About 40% of caregivers suffer with depression
Prevalence of Dementia

* 38% - 85+ years
* 44% - 75-84 years,
* 15% - 65-74 years,
* 4% - <65 years
<table>
<thead>
<tr>
<th>Four Common Causes of Dementia</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Alzheimer’s Disease</td>
</tr>
<tr>
<td>2. Vascular Dementia</td>
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<tr>
<td>3. Alcoholic Dementia</td>
</tr>
<tr>
<td>4. Diffuse Lewy Body Disease</td>
</tr>
</tbody>
</table>
Intellectual Activities Affected by Dementia

- Memory
- Language
- Complex motor skills
4 A’s of Alzheimer’s

* Amnesia
* Aphasia
* Apraxia
* Agnosia
ALZHEIMER’S

1. Slow progressive intellectual decline
2. Absence of neurological findings
3. Intellectual symptoms precede psychiatric symptoms
4. Amnesia precedes other intellectual loss
5. Absence of alcoholism
Minimum Dementia Assessment

1. Careful Clinical History
2. Mental Status Exam
3. Physical Exam
4. Neurological Evaluation
5. Medical Assessment
## Interpretation of MMSE

<table>
<thead>
<tr>
<th></th>
<th>ADULTS</th>
<th>ILLITERATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highest Score</td>
<td>30</td>
<td>23</td>
</tr>
<tr>
<td>Normal</td>
<td>26-30</td>
<td>20-23</td>
</tr>
<tr>
<td>Abnormal</td>
<td>21-25</td>
<td>---</td>
</tr>
<tr>
<td>Dementia</td>
<td>20 or &lt;</td>
<td>19 or &lt;</td>
</tr>
<tr>
<td>Mild</td>
<td>20-26</td>
<td>19 or &lt;</td>
</tr>
<tr>
<td>Moderate</td>
<td>20-10</td>
<td>11-15</td>
</tr>
<tr>
<td>Severe</td>
<td>10 or &lt;</td>
<td>10 or &lt;</td>
</tr>
</tbody>
</table>
Early signs of Alzheimer’s

- Some degree of memory loss
- Disoriented to time
- Word and name finding difficulties
- Getting lost in familiar places
- Difficulty with complex task
- Difficulty retaining new information
- Decreased knowledge of recent events
- Personality changes (irritability, withdrawal, apathy)
- Depression/anxiety
Caregiver Tips for Early Stage of Alzheimer’s

- Notes for the person with Alzheimer’s
- Shared calendars
- Medication schedules
- Written “to do” lists
- Planned times for exercise
- Written meal plans
STAY ACTIVE

- Continue everyday tasks and routines to maintain sense of self
- Modify activities to match abilities
- Adapt activities over time
- Focus on unique strengths and interests
- Plan for rest periods
Caregiver Tips

* Stay flexible with plans. If it’s not a good day, modify or cancel plans.
* Trust that these ups and downs are normal.
* Listen without judging.
* Share your feelings in non-threatening ways.
* Think of ways to complete tasks as a team.
* Go with the flow.
Middle Stages of Alzheimer’s

- Require extensive assistance to carry out daily activities
- Start to forget names of close family members
- Incontinence
- Speech difficulties
- Personality changes, such as delusions
- Compulsions
- Anxiety and agitation
- Psychiatric and behavioral problems
Caregiver Tips for Middle Stage Alzheimer’s

- Behavior modification with positive reinforcement
- Scheduled toileting and prompted voiding
- Assistance with ADLs
- Music, crafts, relaxation
- One-to-one social interaction or family videotapes
- Walking/light exercise to reduce wandering
- Conversation at individuals comprehension level
- Safety measures
Late Stages of Alzheimer’s

- Multiple, severe intellectual impairments.
- Minimal function at home.
- Problems with walking, talking, chewing, and swallowing.
- Loss of bowel and bladder function.
Caregiver Tips for Late Stage

- Coordinate medical care with medical team
- Get help from others with care
- Take Care of yourself
- Take time for relaxation
- Get enough sleep
- Listen to your body when tired or hungry
- Keep appointments with your own physician
VASCULAR DEMENTIA
Vascular Dementia Symptoms

- Abrupt Onset
- Fluctuating Course
- History of Strokes
- Focal Neurological Symptoms
Vascular Dementia
High Risk Groups for Vascular Dementia

- High Blood Pressure
- High Cholesterol
- History of TIA
- History of Stroke
### The Relationship Between Blood Pressure During Midlife and Cognitive Function in Later Life

<table>
<thead>
<tr>
<th>Location</th>
<th>Duration</th>
<th>Study Size</th>
<th>Relationship to HBP</th>
<th>Refs.</th>
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<tbody>
<tr>
<td>1. NIH</td>
<td>30 yrs.</td>
<td>392</td>
<td>↓ Cognitive function</td>
<td>3</td>
</tr>
<tr>
<td>2. Sweden</td>
<td>21</td>
<td>1449</td>
<td>↑ Risk for dementia</td>
<td>9</td>
</tr>
<tr>
<td>3. New Mexico</td>
<td>30</td>
<td>717</td>
<td>↓ Cognitive function</td>
<td>68</td>
</tr>
<tr>
<td>4. Honolulu</td>
<td>26</td>
<td>3605</td>
<td>↓ Cognitive function</td>
<td>11</td>
</tr>
<tr>
<td>5. England</td>
<td>14</td>
<td>5838</td>
<td>Small but significant ↓ Cognitive function</td>
<td>10</td>
</tr>
<tr>
<td>6. Finland</td>
<td>21</td>
<td>1449</td>
<td>↑ Risk for MCI but related to other vascular risk factors</td>
<td>69</td>
</tr>
<tr>
<td>7. Japan</td>
<td>25 to 30</td>
<td>1660</td>
<td>Associated with Vascular dementia</td>
<td>70</td>
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<tr>
<td>8. USA</td>
<td>30+ yrs</td>
<td>8845</td>
<td>Hypertension and multiple other cardiovascular risk factors ↑ risk for dementia</td>
<td>5</td>
</tr>
<tr>
<td>9. Multi-site/USA</td>
<td>6 yrs.</td>
<td>10,963</td>
<td>↑ Risk and ↑ rate of dementia</td>
<td>71</td>
</tr>
</tbody>
</table>

**Dementias other than Alzheimer's**
Treatment Vascular Dementia Prevention

- Don't smoke
- Keep your blood pressure, cholesterol and blood sugar within recommended limits
- Eat a healthy, balanced diet
- Exercise
- Maintain a healthy weight
- Limit alcohol consumption
- Prevent Atherosclerosis
- Control Diabetes
Therapeutic Goals
Vascular Dementia

- Prevent further cerebral infarctions
- Maintain function at highest level of independence
- Treat psychiatric and behavioral complications
- Sustain quality of life
- Educate and support caregiver
Fronto-temporal Lobe Dementia

- Pick’s Disease
- Frontal Lobe Degeneration
Symptom Clusters In Fronto-temporal Dementia (FTD)

* Personality

* Social Conduct
Brain imaging for a patient without Frontotemporal Dementia

Brain imaging for a patient with Frontotemporal Dementia
Epidemiology of FTD

- Age of onset late 50s to early 60s
- Focal deterioration of frontal and temporal lobes
- Clinical course lasts approximately 7 years
- Rapidly progressive dementia
Treatment and Support

- Healthcare Team
- Support groups
- Social interaction
Alcohol-related Dementia
Older Drinkers

60% Elders

JAGS 47:412-416, 1999
Diagnostic Criteria for Alcohol-Related Dementia (ARD)

1. Dementia following 60 days of sobriety
2. Significant alcohol use for over five years and within three years of initial onset of cognitive decline*

M: ETOH> 35 drinks per week
F: ETOH> 28 drinks per week

Am J. Geriatric Psychiatry
Supportive Features for ARD

1. ETOH-related end organ dementia
2. Ataxia or neuropathy
3. Cognitive stabilization following sobriety
4. Improve ventriculomegaly after 60 days
5. Ant. Vermal atrophy on MRI

Am J. Geriatric Psychiatry
Alcohol and Risk for Dementia

1. All heavy drinking ↑ risk
2. Moderate drinking of wine ↓ risk
3. Beer ↑ risk

Neurology 2002;59:1313-1319
Treatment of Alcoholic Dementia

1. Abstinence
2. Proper Nutrition
3. Vitamin Supplementation
4. Correct Medical Problems

Dementias other than Alzheimer’s
Diffuse Lewy Body
Diffuse Lewy Body
Symptoms of Lewy Body Dementia

- Memory loss in advanced stages
- Problems with planning and visual perception
- Visual hallucinations, delusions and agnosia more frequent in early stages
- REM sleep disorder
- Disruption in autonomic nervous system
- Parkinson’s symptoms (hunched posture, balance problems and rigid muscles)
Treatment for Diffuse Lewy Body Dementia

- Cholinesterase inhibitors may help certain symptoms
- Antipsychotics –use with caution
- Selective serotonin reuptake inhibitors (SSRI)
- Clonazepam
- Levodopa
Non-medical Treatment of Diffuse Lewy Body Dementia

- Increase daytime activities
- Avoid naps
- Avoid consumption of alcohol, caffeine, chocolate, or coffee late in the day
### Five FDA Approved drugs for treatment of Alzheimer’s

<table>
<thead>
<tr>
<th></th>
<th>Drug Name</th>
<th>Brand Name</th>
<th>Stage(s)</th>
<th>Year</th>
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<tbody>
<tr>
<td>1.</td>
<td>donepezil</td>
<td>Aricept</td>
<td>All stages</td>
<td>1996</td>
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<tr>
<td>2.</td>
<td>galantamine</td>
<td>Razadyne</td>
<td>Mild to moderate</td>
<td>2001</td>
</tr>
<tr>
<td>3.</td>
<td>memantine</td>
<td>Namenda</td>
<td>Moderate to severe</td>
<td>2003</td>
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<tr>
<td>4.</td>
<td>rivastigmine</td>
<td>Exelon</td>
<td>All stages</td>
<td>2000</td>
</tr>
<tr>
<td>5.</td>
<td>donepezil and memantine</td>
<td>Namzaric</td>
<td>Moderate to severe</td>
<td>2014</td>
</tr>
</tbody>
</table>
**Cholinesterase Inhibitors**

- Slow progression of cognitive decline
- Help to preserve functional abilities
- Can help manage adverse behaviors
- May prolong independence
DEMENTIA PUGILISTICA

- Chronic traumatic encephalopathy
- Boxer’s syndrome
- Caused by head trauma
- Dementia and Parkinsonism most common symptoms
Depression vs Dementia

**Depression**

- Significantly depressed mood — sad, hopeless, discouraged, tearful
- Reduced pleasure in or response to social contacts and usual activities
- Social isolation or withdrawal
- Eating too much or too little
- Sleeping too much or too little
- Agitation or lethargy
- Irritability
- Fatigue or loss of energy
- Feelings of worthlessness, hopelessness or inappropriate guilt
- Recurrent thoughts of death or suicide

**Dementia**

- Apathy
- Decreased motivation
- Anxiety
- Depressed affect
- Persecutory delusions
- Psychomotor retardation
- Impaired memory retrieval
- Poor wordlist generation
- Dilapidation of cognition (calculation, abstraction)
- Variable performance
- Awareness of cognitive deficit
- Loss of appetite and weight
- Constipation
- Impotence
- Sleep disturbances
SUCCESSFUL LIVING
INTERGENERATIONAL CENTER

Alzheimer’s Adult Day Care Center
First Class PreK Classroom
1902 Bullard St.
Montgomery, AL 36106
334-264-1790