NEI’s Master Psychopharmacology Program
Study Guide: Dementia and Cognitive Function

<table>
<thead>
<tr>
<th>Subtopic</th>
<th>Benchmarks (You Should Be Able To)</th>
<th>Recommended Resources</th>
</tr>
</thead>
</table>
| **Symptom Presentation and Assessment** | Describe the clinical features of Alzheimer dementia  
Describe the symptoms and presentation of mild cognitive impairment  
Identify differences in presentation between Alzheimer dementia and depression  
Describe the typical course of Alzheimer dementia  
Identify diagnostic methods under study for identifying Alzheimer dementia at the presymptomatic stage  
Describe the practical application of the new dementia diagnostic guidelines in a mental health setting | Learning Activities*  
52-Year-Old Woman With Depression and Cognitive Fogginess (CME case)  
Additional Resources**  
Stahl's Illustrated: Alzheimer's Disease and Other Dementias  
Modifiable Risk Factors and Early Detection: The Sight, Smell, Sound, Taste, and Touch of Dementia (CME video)  
This Month in Psychopharmacology, Alzheimer Articles |
| **Neurobiology of Symptoms**            | Define what beta amyloid plaques and neurofibrillary tangles are  
Explain the amyloid cascade hypothesis  
Explain the potential role of APO-E and other genes in the development of Alzheimer dementia  
Identify the hypothesized pathology of different dementias  
Explain the role of acetylcholine and cholinergic receptors in cognition and the development of Alzheimer's disease  
Explain the role of glutamate in cognition and the development of Alzheimer's disease | Learning Activities*  
Alzheimer Pathology: A Brief Overview (CME animation)  
The Mediterranean Diet and Healthy Brain Aging (CME animation)  
Additional Resources**  
Stahl's Illustrated: Alzheimer's Disease and Other Dementias |

*You may choose any 24 non-expired Learning Activities to complete the requirements of the Master Psychopharmacology Program. For the full list of Master Psychopharmacology Program requirements, please visit nei.global/mpp.

**These resources do not count toward the requirements of the Master Psychopharmacology Program and are merely listed here as useful resources for additional study.
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| Mechanisms of Dementia Treatments       | Describe potential mechanisms for enhancing cholinergic neurotransmission  
Describe potential mechanisms for modulating glutamatergic neurotransmission                                                                                                                                                  | **Additional Resources****  
*Stahl's Illustrated: Alzheimer's Disease and Other Dementias*                                                                                                                                                                 |
| Clinical Characteristics of Dementia Treatments | Identify currently available agents with evidence of efficacy in Alzheimer's disease  
Describe the range of responses expected with medication treatment of Alzheimer's disease  
Describe the clinically relevant binding profiles and hypothesized corresponding clinical effects for each agent with evidence of efficacy in Alzheimer's disease  
Identify notable side effects for each agent used in Alzheimer's disease  
Identify any contraindications or major drug interactions for each agent used in Alzheimer's disease | **Additional Resources****  
NEI Prescribe  
*Stahl's Illustrated: Alzheimer's Disease and Other Dementias*  
Dementia medication prescribing information/package insert                                                                                                                                                                    |

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| Treatment Strategies      | Identify appropriate monotherapies for Alzheimer dementia  
Identify potential adjunct or combination treatments for Alzheimer dementia  
Identify novel mechanisms and strategies being investigated for potential application to dementia treatment                                                                                      | Learning Activities*  
New hope for Alzheimer’s dementia as prospects for disease modification fade: symptomatic treatments for agitation and psychosis (article)  
Clinical Trials in Alzheimer’s Disease: Immunotherapy (CME animation)  
Additional Resources**  
Avoiding Nursing Home Placement: Treatment of Secondary Behavioral Symptoms of Dementia (CME video)  
Management of Behavioral Symptoms in Neurodegenerative Disorders (CME video)  
NEI Prescribe  
This Month in Psychopharmacology, Alzheimer Articles  
Stahl’s Illustrated: Alzheimer’s Disease and Other Dementias |
| Special Considerations    | Explain recommendations for dementia treatment selection/maintenance in women who are pregnant or breastfeeding  
Identify dementia treatments for which dosing recommendations are different for individuals with medical complications                                                                 | Additional Resources**  
Dementia medication prescribing information/package insert  
NEI Prescribe                                                                                       |