Knight Alzheimer Disease Research Center (Knight ADRC)

Dementia & Aging Section, Department of Neurology, Washington University School of Medicine Knight ADRC Director & Principal Investigator: John C. Morris, MD Course Director for Residents/Students: B. Joy Snider, MD, PhD 314-747-2107 | Cell phone 314-503-8411 | sniderj@neuro.wustl.edu Course Contact: Jennifer Phillips, MPA, 314-286-2882 | phillipsj@wustl.edu Memory and Aging Project (MAP): 314-286-2683 or 314-286-2881; Memory Diagnostic Center (MDC): 314-286-1967

Orientation and Schedules

At least one week before your first day on the rotation, contact Ms. Jennifer Phillips, Research Center Program Manager, to arrange a time for orientation to the Knight ADRC; this usually takes place at 8:15 am on your first day. The Knight ADRC offers both clinical and research patient interactions, and also has many affiliated groups across the WU campus. You will gain the most from this experience if you give some thought to what experiences are of interest and participate in as many of these opportunities as possible, seeing different clinicians in different settings. Jennifer will instruct you in how to arrange these experiences. The schedule is a guide to when clinical activities and didactic sessions are available. Dr. Joy Snider provides supervision to medical students and residents on this rotation. Please let Dr. Snider or Ms. Phillips know if you have any other specific learning goals or requests for specific experiences (e.g., neuropathology, neuroradiology, biostatistics, psychology).

ALL TRAINEES are required to complete a trainee registration sheet and sign a confidentiality statement. Copies may be obtained from the receptionist at the front desk. Trainees from outside of Washington University (e.g., students from other institutions, international fellows) must complete human resources paperwork, a health history with TB test, HIPAA and Human Studies training modules if their visit or rotation is longer than 1 day. See Jennifer to arrange this.

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SCHEDULE	OF CLINICAL ACTIVITIES		RELEVANI	LECTURES (See Checklist** p	og 5-6)
 Clinic times 	are subject to change due to vacations, c	ancellations,			
etc. so chec	k the current schedule for specific activitie	es	Monday		
 Ask Maria Carroll for assistance in reviewing the MAP (research) and Dawn Ellington for reviewing the MDC (clinical) schedules You can view training videos when 'live' clinical activities are not available; see Angela Oliver, MSN or Maria Carroll to set this up. Memory and Aging Project (MAP) of the Knight ADRC is located in Suite 101 at 4488 Egreet Park Avenue (Health Key) 			12:00 PM	Hope Center Seminar https://hopecenter.wustl.edu/?page_id=57	Holden Auditorium
			12:00 PM	Geriatrics Journal Club Stephanie Paule spaule@wustl.edu; 314- 286-2909 (call to confirm)	Conference Room, 3 rd Floo Wohl Building
	at 4466 Forest Park Avenue (Health Key).			
 Memory Diagnostic Center clinic is held at the Center for Advanced Medicine (CAM), 4921 Parkview Place, Suite 6C unless specified. 			Tuesday 9:00 AM	Psychiatry Grand Rounds http://www.psychiatry.wustl.edu/ c/Denastment/Conferences/default.aspy	Clopton Auditorium
Monday				o Department Contenences/deladit.aspx	
8:00 AM	Cassie Ward, ANP-C	Center 40	9:15 AM	Neuropathology Brain Cutting	IWJ Building
9:30 AM	Erik Musiek, MD, PhD (every other Monday)	MAP		Session	
9:30 AM	Joy Snider, MD, PhD	MAP	12:00 PM	*ADRC Research Seminar	East Pavilion
1:00 PM	Gregory Day, MD	MDC		http://alzheimer.wustl.edu/	Auditorium
1:00 PM	Mary Coats, MSN	MAP		Education/Seminar.ntm	
Tuesday			Wednesday		
8.00 AM	Cassie Ward ANP-C	Center 40	9.00 AM	Psychiatry Adv Resident Seminar	Renard, 3 rd
9:30 AM	Mary Coats, MSN	MAP	0.007.00	(Sept-May)	Floor Conf.
9:30 AM	Maria Carroll, MSN	MAP			Room
1:00 PM	Joy Snider, MD, PhD and David Carr, MD	MDC	11:30 AM	Psychiatry Research Seminar (Sept-May)	Holden Auditorium
1:30 PM	Gregg Day, MD	MAP	12.00 PM	Neurology Residency Clinical	West Pavilion
1:30 PM	Suzanne Schindler, MD, PhD (alternating weeks)	MAP	12.001 M	Neuroscience Series	Auditorium
Wednesday	(alternating weeks)				
TBA	Lumbar Punctures (call to confirm)	MDC	Thursday		
8:00 AM	John Morris, MD	MDC	12.00 PM	*MAP Clinical Conference	ADRC
8:00 AM	Cassie Ward ANP-C	Center 40	12.001 10		Conf.Room
9:30 AM	Mary Coats, MSN	MAP			
9:30 AM	Eric McDade, DO	MAP	12:00 PM	*Clinicopathological Conference	ADRC
1:00 PM	Suzanne Schindler, MD, PhD	MDC		3 rd Thursday of each month	Conf.Room
1:00 PM	David Holtzman, MD; Randall Bateman,	MDC			
1:30 PM	MD Gread Day, MD	ΜΔΡ	Friday		
1:30 PM	Renate Reimers MD	MAP	8:00 AM	Neurology Grand Rounds	West Pavilion
Thursday		140 11			Auditorium
8:00 AM (all	Cassie Ward ANP-C	Center 40	***		
day)		50	*Required	event during rotation.	
9:30 AM	Renate Reimers, MD	MAP			
1:30 PM	Cummings-Vaughn	MAP			
Friday					
9:30 AM	John Morris, MD	MAP			
9:30 AM	Maria Carroll, MSN	MAP			
12:00 PM	Gene Rubin, MD, PhD	MAP			
1:00 PM	Renate Reimers, MD	MAP			

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1:00 PM	Residents' Clinic & Extra Appointments	MDC	
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Overall Learning Objectives for Resident and Student Rotators

(also see ACGME Competency-Based Objectives for Neurology Residents, pages 10-11)

Educational Resources:

- A trainee workstation may be available in the Fellows' Room. See receptionist for computer password.
- In addition to the trainee workstations in the Fellows' Room, you may also work in the Physician's Dictation Room.
- Patient assessment DVD library (see MAP Clinical Core Leader for access and direction).

Objectives for Learning:

During this rotation, trainees are exposed to clinical and research methods for the evaluation of older adults with cognitive-functional complaints consistent with Alzheimer's disease and other neurodegenerative disorders. Evaluations are observed live and in-person, as well as via videotape, and cover a range of diagnoses and care issues. Trainees observe clinicians from different specialty backgrounds (Neurology, Geriatrics, Psychiatry) and learn how to administer and score the Clinical Dementia Rating (CDR) interview.

Trainees participate in other educational offerings of the Center, including research seminars and a weekly clinical case conference. Enrichment opportunities include evaluating older adults in the long term care setting, exposure to clinical trial methodology, and opportunities to use the resources of the Center in the future to conduct in-depth research on a specific dementia-related topic.

At the end of the rotation, residents/students should:

- Understand basic interviewing techniques to elicit pertinent information from patient and family members in support of a diagnosis.
- Understand symptom patterns that differentiate Alzheimer's disease (AD) from related neurodegenerative disorders (i.e., Dementia with Lewy Bodies, Frontotemporal Dementia, Vascular Dementia) and become comfortable making a differential diagnosis in uncomplicated cases.
- Understand the range of treatments currently available for AD and how they are prescribed.
- Be familiar with broader issues of family and community care for persons with dementia, particularly services available through the Alzheimer's Association.
- Be able to differentiate the key presentations associated with age-related cognitive changes from dementing illnesses
- Be certified in administering the Clinical Dementia Rating (CDR).

Expectations of Residents/Students:

- Residents/students must complete necessary paperwork and/or training for compliance with Human Studies and HIPAA regulations by the second day of the rotation.
- Residents/students should dress in professional attire (office casual is acceptable) and wear a lab coat when interacting with patients or research subjects.
- Supervision for this rotation is provided jointly by Knight ADRC Director Dr. John C. Morris and by Knight ADRC Clinician Dr. B. Joy Snider.
- **Neurology Residents** are required to arrange once-weekly supervision meetings with Dr. Snider. During these meetings, Dr. Snider will review various aspects of dementia diagnosis, treatment and clinical care, and assign further reading.
- Neurology Residents are required to develop a case study/case presentation based on a patient or research participant. This could be someone seen during the dementia rotation or during rotations at BJH or other facilities. Residents can choose to highlight a specific syndromic presentation, a situation where imaging and/or fluid biomarkers gave insight, or an interesting clinicopathologic correlation (eg, a case of Whipple's disease presenting as a dementia). Residents should prepare a brief written case report and PowerPoint presentation. Residents will present these cases either at the ADRC noon meeting, or, if possible, as a group at a Knight ADRC noon seminar in the spring.
- Students and Residents from other services (Psychiatry, Medicine) rotating for more than two weeks should prepare a brief presentation on some aspect of dementia or cognitive aging. This should be a 25-30 minute PowerPoint presentation (30 slides max) on a topic related to dementia. See Drs. Joy Snider or John Morris for topic suggestions. Presentations will be scheduled during the ADRC noon seminar. See below for more details.
- At the end of the rotation, residents and students should make an appointment with Dr. Snider for an exit interview.
- To complete and pass this rotation you must also specifically complete the following steps:

- Become Clinical Dementia Rating (CDR) certified.
- o Attend clinics at both the Memory and Aging Project and Memory Diagnostic Center.
- Complete the **checklist** (see pages 4-5) at the end of the rotation.
- o At the end of the rotation, put checklist and pre- and post-tests in Dr. Snider's mailbox at MAP.

Two-week rotation:

- 1. Learn an informant-based approach to dementia diagnosis
 - a. Observe in Memory and Aging Project (MAP)
 - b. Observe in Memory Diagnostic Center (MDC)
- 2. Learn about differential diagnosis via observations in the Memory Diagnostic Center
- 3. Become expert in the neurological examination of older adults
 - a. Observe in MAP and MDC
 - b. Perform complete neurological examination of MAP participant or MDC patient at conclusion of rotation.

Four-week rotation:

- 1. All of the above.
- 2. Literature-based review of a clinical dementia topic. Topic to be determined in partnership with course directors John C. Morris, MD and/or B. Joy Snider, MD, PhD. Topic to be presented to Knight ADRC faculty and staff.

Topic Review and Presentation for Medical Students and Psychiatry and Medicine Resident Rotators:

Neurology residents who take the dementia elective or participate in dementia selective clinics are expected to present at the Knight ADRC seminar residents' presentation. This will be scheduled in the spring and occurs at noon on a Tuesday as part of the Knight ADRC Tuesday Seminar Series. Residents can present an interesting case, review paper, or topic. This is typically a 20-minute presentation, though it varies depending on how many residents are presenting.

Students and other trainees on the four-week rotation will prepare a brief research review paper and/or a 15-20 minute talk on a dementia-related topic of his/her choice. Students should discuss choice of topic and the format with Dr. Snider or Dr. Morris.

End of Rotation Checklist

Instructions: Please check all of the following that have been your experience in regards to your instruction on this rotation. Turn in to Dr. Snider's mailbox at end of rotation.

SKILLS

I have received instruction during this rotation and/or now have skills in the following areas:

- ____administering mental status screens
- ___administering depression screens
- ___administering the Clinical Dementia Rating (CDR)
- ____balance and gait assessment
- ____history taking for dementia evaluations
- ____pertinent physical exam findings in dementia evaluations
- ____cost-efficient laboratory and/or radiological w/u for dementia
- ____current treatment and management of dementia and related disorders
- ____knowledge of the differential diagnosis for irreversible and progressive neurodegenerative dementias

KNOWLEDGE

Instructed on the diagnosis, evaluation, and management of the following specific dementing illnesses:

- ____DAT (Dementia of the Alzheimer's Type)
- DLB (Dementia with Lewy Body)
- ____FTD (Fronto-temporal Dementia)
- ___CJD (Prion disease)
- ____NPH (Normal Pressure Hydrocephalus)
- ____VD (Vascular Dementia)
- ____MCI (Mild Cognitive Impairment)
- ____Demonstrate a passing grade on the multiple choice and true/false tests
- ____Complete the reading list and contribute articles to the list

SETTINGS

I have attended and/or observed dementia care in the following settings (check all that apply);

- ____Memory and Aging Project (MAP) clinics
- ____Memory Diagnostic Center (MDC) clinics
- ____Tuesday Noon Research Conference
- ____Brain Cutting (contact 362-7420)
- Observe in-home dementia assessment (contact Marie Meisel, MSN 612-5911)
- ____Nursing home visit at Parc Provence (contact Stephanie Paule spaule@wustl.edu; 314-286-2909)
- ___Observe family conference in the Memory and Aging Project (contact Terri Hosto, LCSW, 286-2418)
- Learn about psychometric testing for dementia (contact Denise Maue Dreyfus, MA, at 286-2688)
- _____Visit the Alzheimer's Association Greater Missouri Chapter (contact: Cheryl Kinney, 801-0442. Call 2 days ahead of time.)
 - Visit an Adult Day Care Center such as JCCA Adult Day Care Center (contact: Deborah Ellis, Phone: 442-3245. Call 2 days ahead of time to schedule observation.)

WEBSITES

I have visited the following websites (check all that apply):

- ____Washington University ADRC Home Page: http://alzheimer.wustl.edu/
- Clinical Dementia Rating training page: http://alzheimer.wustl.edu/cdr/Application/ApplicationA.asp
- National Alzheimer's Coordinating Center: http://www.alz.washington.edu/
- Alzheimer's Research Forum: http://www.alzforum.org/
- Alzheimer's Disease Education & Referral Center: https://www.nia.nih.gov/alzheimers/
- ____Alzheimer's Association Greater Missouri Chapter: www.alz.org/stl

ATTITUDES

- Your training experience should foster the development of positive attitudes about the importance of a multidisciplinary approach to caring for demented patients and the caregivers, including appropriate respect for other health professionals and paraprofessionals and their roles in the provision of services in addition to respect for the demented patient and their caregiver(s).
- ___Your training experience should reveal exposure to clinicians that are truly passionate and have a positive attitude toward care for patients and families with dementia.

FEEDBACK/COMMENTS?

Knight ADRC SUGGESTED READINGS: This list of articles is suggested reading that is provided to highlight some of the major studies from our center as well as some key studies from other groups. If you have an interest in other articles from our center, please email Jennifer Phillips (<u>phillipsj@wustl.edu</u>).

Excellent Sources for Background/basic Reading:

Morris, J.C., Galvin, J.E., & Holtzman, D.M. (eds) (2006). Handbook of Dementing Illnesses. Boca Raton, FL USA: CRC Press. [eBook access is available through Becker Library when on the WUSM network or Remote Access Proxy Server (<u>https://becker.wustl.edu/services/accounts/remote-access</u>) <u>https://beckerproxy.wustl.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&scope=site&db=nleb k&db=nlabk&AN=184550]</u>

The April 2016 (Vol 22, No 2) issue of Continuum is on dementia and worth a review to find topics of interest.

Clinical Dementia Rating/Cognitive Assessment/Neurological Examination

- Galvin JE, Roe CM, Powlishta KK, Coats MA, Muich SJ, Grant E, Miller JP, **S**torandt M, Morris **JC**. The AD8: A brief informant interview to detect dementia. Neurology 2005; 65:559-564.
- Hughes CP, Berg L, Danziger WL, Coben LA, Martin RL. A new clinical scale for the staging of dementia. Br J Psychiatry 1982; 140:566-572
- Morris JC. The Clinical Dementia Rating (CDR): Current version and scoring rules. Neurology 1993; 43:2412-2414

Preclinical Dementia

- Holtzman DM, Morris JC, Goate AM (2011) Alzheimer's disease: the challenge of the second century. Science translational medicine 3:77sr71.
- Price JL, Morris JC (1999) Tangles and plaques in nondemented aging and "preclinical" Alzheimer's disease. Ann Neurol 45:358-368.
- Price JL et al. (2009) Neuropathology of nondemented aging: presumptive evidence for preclinical Alzheimer disease. Neurobiol Aging 30:1026-1036.

Mild Cognitive Impairment

Morris JC (2012) Revised Criteria for Mild Cognitive Impairment May Compromise the Diagnosis of Alzheimer Disease Dementia. Arch Neurol.

Biomarkers (Fluid and Imaging) in AD

- Fagan AM, Roe CM, Xiong C, Mintun MA, Morris JC, Holtzman DM (2007) Cerebrospinal fluid tau/β-amyloid₄₂ ratio as a prediction of cognitive decline in nondemented older adults. Arch Neurol 64:343-349.
- Fagan AM, Head D, Shah AR, Marcus D, Mintun M, Morris JC, Holtzman DM (2009) Decreased cerebrospinal fluid Abeta(42) correlates with brain atrophy in cognitively normal elderly. Ann Neurol 65:176-183.

Bold fMRI differentiates dementia with Lewy bodies vs Alzheimer disease. Neurology 76:1797-1803.

Mintun MA, Larossa GN, Sheline YI, Dence CS, Lee SY, Mach RH, Klunk WE, Mathis CA, DeKosky ST, Morris JC (2006) [11C]PIB in a nondemented population: potential antecedent marker of Alzheimer disease. Neurology 67:446-452.

Snider BJ, Fagan AM, Roe CM, Shah AR, Grant EA, Xiong C, Morris JC, Holtzman DM (2009) Cerebrospinal fluid biomarkers and rate of cognitive decline in very mild dementia of the Alzheimer's type. Archives of Neurology 66:638-645.

A somewhat dated but still excellent review of CSF biomarkers:

Hansson O, Zetterberg H, Buchhave P, Londos E, Blennow K, Minthon L (2006) Association between CSF biomarkers and incipient Alzheimer's disease in patients with mild cognitive impairment: a follow-up study. Lancet Neurol 5:228-234.

Driving and Dementia

Carr DB, Duchek J, Meuser T, Morris JC. Older adult drivers with cognitive impairment. American Family Physician 2006; 73:1029-1034.

General Dementia References You Might Find Helpful:

Mental Status Examination

There are good chapters on the mental status examination in many neurology texts, including:

- DeJong's <u>The Neurologic Examination</u>
- DeMyer's <u>The Neurologic Examination: A Programmed Text.</u>
- For students, there is a chapter on the mental status examination in <u>DeGowin's Diagnostic Examination</u>, Ninth Edition.
- The textbook <u>Neurobehavioral Disorders</u>, <u>A Clinical Approach</u> by Richard L. Strub and F. William Black is a classic, but a bit dated now (© 1988).

Other Dementias: Dementia with Lewy Bodies

Mueller, C., Ballard, C., Corbett, A., & Aarsland, D. (2017). The prognosis of dementia with Lewy bodies. Lancet Neurol, 16, 390-398

Galasko, D. (2017). Lewy Body Disorders. Neurol Clin, 35, 325-338

Galvin JE, Pollack J, Morris JC. Clinical phenotype of Parkinson disease dementia. Neurology 2006; 67:1605-1611.

Other Dementias: Parkinsonian Dementias (PSP, MSA, OPCA, CBD)

Litvan I, Bhatia KP, Burn DJ, Goetz CG, Lang AE, McKeith I, Quinn N, Sethi KD, Shults C, Wenning GK (2003) Movement Disorders Society Scientific Issues Committee report: SIC Task Force appraisal of clinical diagnostic criteria for Parkinsonian disorders. Mov Disord 18:467-486.

Van Deerlin VM, Wood EM, Moore P, Yuan W, Forman MS, Clark CM, Neumann M, Kwong LK, Trojanowski JQ, Lee VM, Grossman M (2007) Clinical, genetic, and pathologic characteristics of patients with frontotemporal dementia and progranulin mutations. Arch Neurol 64:1148-1153.

Other Dementias: Frontotemporal Dementias

Josephs, KA. Frontotemporal lobar degeneration. Neurol Clin 2007; 25:683.

Other Dementias: Vascular Dementia/Mixed Dementias

- Langa, KM, Foster, NL, Larson, EB. Mixed dementia: emerging concepts and therapeutic implications. JAMA 2004; 292:2901.
- Leys, D, Henon, H, Mackowiak-Cordoliani, MA, Pasquier, F. Poststroke dementia. Lancet Neurol 2005; 4:752.
- Vermeer, SE, Prins, ND, den Heijer, T, et al. Silent brain infarcts and the risk of dementia and cognitive decline. N Engl J Med 2003; 348:1215.

Other Dementias: Vascular Risk factors in AD and Other Dementias

- Kivipelto, M, Helkala, EL, Laakso, MP, et al. Midlife vascular risk factors and Alzheimer's disease in later life: longitudinal, population based study. BMJ 2001; 322:1447.
- Young, VG, Halliday, GM, Kril, JJ. Neuropathologic correlates of white matter hyperintensities. Neurology 2008; 71:804.

Other Dementias: HIV-Associated Dementia

Ances BM, Christensen JJ, Teshome M, Taylor J, Xiong C, Aldea P, Fagan AM, Holtzman DM, Morris JC, Mintun MA, Clifford DB (2010) Cognitively unimpaired HIV-positive subjects do not have increased 11C-PiB: a case-control study. Neurology 75:111-115.

Other dementias: Normal Pressure Hydrocephalus

Graff-Radford, N.R. (2007). Normal pressure hydrocephalus. Neurol Clin, 25, 809-832, vii-viii

Other Dementias: Autoimmune Encephalopathies

- McKeon, A. (2016). Autoimmune Encephalopathies and Dementias. Continuum (Minneap Minn), 22, 538-558
- Day, G.S., High, S.M., Cot, B., & Tang-Wai, D.F. (2011). Anti-NMDA-receptor encephalitis: case report and literature review of an under-recognized condition. J Gen Intern Med, 26, 811-816

Other Dementias: Transient Global Amnesia

- Bartsch T, Deuschl G (2010) Transient global amnesia: functional anatomy and clinical implications. Lancet Neurol 9:205-214.
- Arena, J.E., Brown, R.D., Mandrekar, J., & Rabinstein, A.A. (2017). Long-Term Outcome in Patients with Transient Global Amnesia: A Population-Based Study. Mayo Clin Proc, 92, 399-405

New 2011 Criteria for Dementia, Mild Cognitive Impairment and Preclinical Dementia

- Albert MS et al. (2011) The diagnosis of mild cognitive impairment due to Alzheimer's disease: recommendations from the National Institute on Aging-Alzheimer's Association workgroups on diagnostic guidelines for Alzheimer's disease. Alzheimers Dement 7:270-279.
- Jack CR, Jr. et al. (2011) Introduction to the recommendations from the National Institute on Aging-Alzheimer's Association workgroups on diagnostic guidelines for Alzheimer's disease. Alzheimers Dement 7:257-262.

- McKhann GM, et al. (2011) The diagnosis of dementia due to Alzheimer's disease: recommendations from the National Institute on Aging-Alzheimer's Association workgroups on diagnostic guidelines for Alzheimer's disease. Alzheimers Dement 7:263-269.
- Sperling RA et al. Toward defining the preclinical stages of Alzheimer's disease: recommendations from the National Institute on Aging-Alzheimer's Association workgroups on diagnostic guidelines for Alzheimer's disease. Alzheimers Dement 7:280-292.

Dementia Therapies: General

For up-to-date review of clinical trials in Alzheimer disease, go to http://www.alzforum.org/therapeutics

Treatment of Behavioral Complications of Dementia/Use of Neuroleptics:

Porsteinsson, A.P., & Antonsdottir, I.M. (2017). An update on the advancements in the treatment of agitation in Alzheimer's disease. *Expert Opin Pharmacother*, 18, 611-620

Specific ACGME Core Competencies, Goals, and Objectives for Residents (PGY3-4):

Patient Care

Goal: The resident rotating on the ADRC rotation must be able to obtain a comprehensive interview with a caregiver and patient/participant that is compassionate, appropriate, and effective for the management of dementia and the promotion of health. Residents are expected to:

Objectives

- Understand basic interviewing techniques to elicit pertinent information from patient and family members in support of a diagnosis.
- Be able to perform a standard neurological examination with a focus on those important physical findings that assist in the differential diagnosis of determining the etiology of the dementias.
- Learn to administer the Clinical Dementia Rating (CDR) scale and to assess the presence and severity of dementing disorders.
- Be able to distinguish normal age-related cognitive changes from those suggestive of a progressive neurodegenerative disorder.
- Be able to assess for the presence of delirium, medication-induced cognitive dysfunction and mood disorder induced changes in cognition.
- Participate in clinical and research assessments of older adults with cognitive-functional complaints consistent with Alzheimer's disease and other neurodegenerative disorders. Residents will observe evaluations live and inperson, as well as via videotape, and cover a range of diagnoses, treatment, and care issues.
- Observe clinicians from different specialty backgrounds (Neurology, Geriatrics, Psychiatry).

Medical Knowledge

Goal: The resident rotating on the ADRC rotation must demonstrate knowledge of the differential diagnosis of irreversible degenerative dementias and be able to communicate an effective treatment plan for the management of dementia. Residents are expected to:

Objectives

- Understand symptom patterns and physical exam signs that differentiate Alzheimer's disease from related neurodegenerative disorders (i.e., Dementia with Lewy Bodies, Frontotemporal Dementia, Vascular Dementia) and be comfortable making a differential diagnosis in uncomplicated cases.
- Understand the range of treatments currently available for Alzheimer's disease and how they are prescribed.
- Understand the symptoms and findings that are suggestive of rapidly progressive dementias such as Creutzfeldt-Jakob disease.
- Be aware of emerging treatments and diagnostic modalities, including fluid biomarkers and amyloid imaging.
- Be familiar with health conditions of aging that may complicate Alzheimer's disease presentation and strategies for the management of challenging conditions, such as depression and behavioral problems.

Practice-based Learning and Improvement

Goal: The resident rotating on the ADRC rotation must demonstrate the ability to investigate and evaluate their care of dementia patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation. Residents are expected to develop the following skills; **Objectives**

- During the rotation the resident should use internet-based, peer-reviewed sources of information to enhance their knowledge of current issues and management of patients with dementia
- All residents should understands his or her limitations of knowledge and judgment; ask for help when needed; and be self-motivated to acquire knowledge
- Accept feedback and learn from own errors
- The resident will develop a dementia case presentation that will be presented either at the end of the rotation or as part of an ADRC research seminar in the spring. The case presentation will serve as a teaching tool and will be added to the residents case portfolio and the ADRC teaching case collection.
- Residents must complete necessary paperwork (and/or training) for compliance with Human Studies and HIPAA regulations by the second day of the rotation.
- Residents participate in other educational offerings of the Center, including research seminars, a weekly clinical case conference, and neuropathology microscopic and brain cutting sessions.

Interpersonal and Communication Skills

Goal: The resident rotating on the ADRC rotation must demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients or participants, their families or caregivers, and health professionals. Residents are expected to:

Objectives

- Demonstrate caring and respectful behaviors with patients, families, including those who are angry and frustrated; and all members of the health care team.
- Know the basics of counseling and educating patients with dementia and their families.

Professionalism

Goal: The resident rotating on the ADRC rotation must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles. Residents are expected to demonstrate:

Objectives

- Demonstrate respect, compassion, and integrity.
- Develop an appreciation for a commitment to ethical principles pertaining to provision or withholding of clinical care, confidentiality of patient information, informed consent, and other aspects of clinical care.
- Develop an appreciation for the ethical, cultural and socioeconomic dimensions of dementia, demonstrating sensitivity and responsiveness to patients' culture, age, gender, and disabilities.

Systems-based Practice

Goal: The resident rotating on ADRC rotation must demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care. Residents are expected to:

Objectives

- Be familiar with broader issues of family and community care for persons with dementia, particularly services available through the community and the Alzheimer's Association.
- Work effectively with others (such as nurses, secretaries, social workers, nutritionist, interpreters, physical and occupational therapists, technicians) as a member of a health care team
- Learn how to manage patients in long term care facilities and nursing homes
- Learn about community resources that can assist dementia patients such as hospice, home health, palliative care, and community outreach.
- Advocate for quality patient care and assist patients in dealing with system complexities
- Know the cost-effective use of diagnostic technology in the evaluation of dementia (e.g. PET scan, LP, EEG, etc).