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Obstructive Sleep Apnea Research Opportunity EVALUATION OF THE REPEATABLE
BATTERY FOR THE ASSESSMENT OF
NEUROPSYCHOLOGICAL STATUS AS A
CLINICAL SCREENER FOR SLEEP APNEA
IN DEMENTIA PATIENTS

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### **BACKGROUND**

- The Repeatable Battery for the Assessment of Neuropsychological Status (RBANS) is a robust standardized screening tool used to evaluate patients for memory loss.
- Previous retrospective research has demonstrated a paradoxical pattern of lower immediate memory scores than delayed memory scores in dementia patients with untreated sleep apnea.

A Unique Pattern on Memory Testing in Dementia Screening Predicts Obstructive Sleep Apnea

Donn D. Devter MD: Amber G. Fhert. Psy

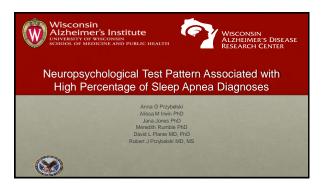
### PURPOSE OF STUDY

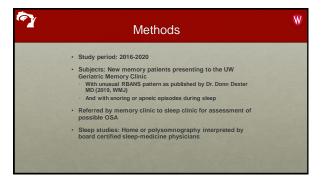
- Prospectively measure RBANS scores in dementia patients with subsequent at home sleep apnea testing to evaluate for an association between lower immediate scores than delayed memory scores and sleep apnea.
- Determine the effectiveness of RBANS as a screener for sleep apnea in patients with dementia
- · Hypothesis:
  - Dementia with sleep apnea is associated with lower immediate memory scores than delayed memory scores.

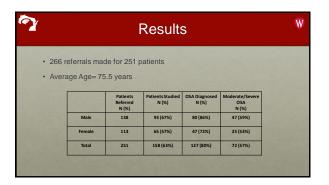


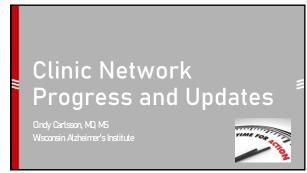
CLINICS THAT HAVE EXPRESSED INTEREST

- Door County Memory Care (Door)
- · Lakeshore Memory Clinic (Manitowoc)
- Marshfield Clinic Memory Disorders Clinic (Eau Claire)
- Mayo Clinic Health System Dementia Program (La Crosse)
   Mayo Clinic Health System Memory Care Clinic (Eau Claire)
- Northern Wisconsin Memory Diagnostic Center (Oneida)
- · Richland Hospital Clinic (Richland)
- St. Croix Regional Medical Center Memory Clinic (Polk)
- UW Health East Clinic (Dane)
- UW Health Hospital and Clinics Memory Assessment Clinic (Dane)









## **Clinic Network Progress and Updates**

- Emerging post COVID
- · WAI new staff
- Associate Scientist: Tamara LeCaire, MS, PhD
- Administrator: Sarah Klein
- New Alzheimer's medication? Aducanumab
- · Blood biomarker studies
- · Clinical Trials Community of Practice



## **WAI New Staff**



· Associate Scientist: Tammy LeCaire, MS, PhD



• WAI Administrator: Sarah Klein



Find out more about our WAI teams at: https://wai.wisc.edu/people/

## Tammy LeCaire, MS, PhD

Training: Population Health Sciences, Epidemiology

<u>Prior Research Experience</u>: Survey of the Health of Wisconsin; Epidemiology of diabetes complications & self-management; Mixed-methods health services research

Training & Program Evaluations; Support Manuscript and Grant Development; Survey development and data management: Dr. Norris' survey development for promoting DEI excellence in WAI

<u>Grants:</u> Dementia Workforce Education and Programs with WAI-MKE and United Community Center

<u>Future</u>: Outcomes in electronic health records to measure effective care in persons with ADRD; Promoting ADRD awareness and early detection; Persons with diabetes and hypertension



## Sarah Klein, BA

<u>Training</u>: Mass Communications, Journalism and Public Relations, Lean Six Sigma Yellow Belt Certification



- UW-Madison School of Education Business Director and Interim Executive Director of the Professional Learning & Community Education (PLACE) office
- Wisconsin Department of Transportation
- · Public Service Commission of Wisconsin (PSC)



## Aducanumab

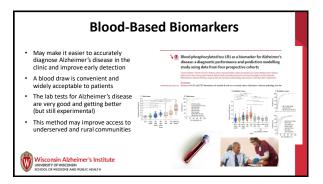
- · Passive immunotherapy targeting amyloid
- · IV infusion every 4 weeks
- Most common adverse events were amyloid-related imaging abnormalities – edema (ARIA-E) and headache
- In June 2021, FDA will decide if aducanumab is approved or not on

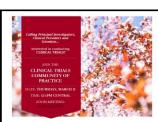


## Aducanumab

- · Why is this medication controversial?
  - March 21, 2019 aducanumab trials (EMERGE and ENGAGE Studies) stopped
  - October 22, 2019 Biogen announced that analysis was wrong
  - People on the highest dose in the EMERGE trial (10 mg/kg) had a significant reduction in decline on Clinical Dementia Rating – Sum of Boxes, MMSE, ADAS-Cog, and ADCS-ADL-MCI
  - Low-dose group had some slowing of progression, but differences not significant
  - July 8, 2020 Biogen submitted a biologics license application to the FDA
  - November 6, 2020 an FDA advisory committee voted against approval
  - June 7, 2021 FDA will decide if aducanumab is approved or not on







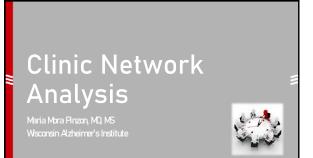
Contact Kristi Schaeve (schaeve@wisc.edu) to ioin emails



All principal investigators, clinical providers and scientists who are interested in conducting clinical trials at UW, UW Health, UnityPoint Health-Meriter and the VA are invited to join this newly forming Clinical Trials Community of Practice.

The mission is to develop innovative solutions to conducting all kinds of clinical trials, including those initiated by investigators and those sponsored by industry.

The goals are to build capacity for principal investigators and clinicians interested in clinical trials, promote mentoring, share best practices and work to remove barriers.



## Clinic Network Analysis – Quality Measures

Based on the CMS MIPS measures

https://qpp.cms.gov/mips/explore-measures

Dementia Management Quality Measurement Set by The American Academy of Neurology Institute and the American Psychiatric Association

https://www.aan.com/siteassets/home-page/policy-andguidelines/quality/quality-measures/2018-dementiamanagement-measures.pdf



https://www.aan.com/policy-and-guidelines/quality/qualitymeasures2/quality-measures/geriatric-neurology/ 18

## Quality Measures Are Not

- · Mandates for clinical practice
- · Required to have perfect performance rates
- · Intended to penalize physicians or care teams
- Intended for use as practice standards in malpractice claims
- · Intended for use to approve or deny insurance claims
- Intended to substitute for the independent professional judgment of the treating provider



https://www.aan.com/siteassets/home-page/policy-andguidelines/quality/quality-measures/how-measures-aredeveloped/19\_qualitymeasuredevprocman\_v304.pdf

## Quality measures caveats:

- These are not designed to be at 100%.
- Measures are designed to be done for each patient over a 12-month period our measurements are just a reflection of a single point in time, and DO NOT reflect care provided in subsequent visits.



## Quality Measure 2: Education & Support of Caregivers 2020 CMS MIPS — Quality Measure 288 Data Completeness: 72.8% O2 PERFORMANCE 100% 6th Decile 87% 60% 72% 5th Decile 45% 20% 4th Decile 16% 3rd Decile 16%

Clarifications

15. Quality Measure 3: Did you identify any impairment to perform basic activities (ADL) or instrumental activities?

Yes No Not evaluated

Lawton IADL Score (0-8)

Barthel ADL Index (0-100)

Functional Activities Qs (0-30)

## Clarifications Do you need to complete the scales (e.g. Lawton, Barthel) to "obtain the point"? NO Functional status is assessed by use of a validated tool, direct assessment of the patient, or by guerving a knowledgeable informant about the patient's ability to perform instrumental activities of daily living (ADL) (i.e., cleaning, money management, medication management, transportation, cleaning, and cooking) and basic activities of daily living (ADL) (i.e., grooming, bathing, dressing, eating, toileting, and gait). Wisconsin Alcheimer's Institute was a second of the patient of t

Changes coming to the Form

15. Quality Measure 3: Did you identify any impairment to perform basic activities (ADL) or instrumental activities?

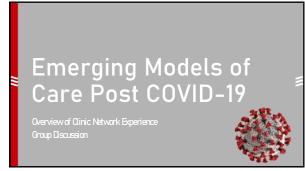
| Yes | No | Not evaluated | Lawton IADL Score (0.48) | Katz ADL Score (0.49) |
| Barthel ADL Index (0.100) | Functional Activities Qs (0.30)

| Quality Measure 3: Activities of daily living (ADL) or IADL |
| 15.1 Assessment done by clinician inquiring of patient/informant |
| 15.2 Did you identify any impairment to perform ADLs? | Yes | No |
| Lawton IADL Score (0.48) | Katz ADL Score (0.69) |
| Barthel ADL Index (0.100) | Functional Activities Qs (0.30)

| Wisconsin Alzheimer's Institute | November (1.000) | November (1.000)

## Clarifications What is a referral? The process of coordinating an appointment or service by either of the following methods: — Introducing an order in the EHR — Contacting the organizations with patient's caregiver information for future evaluation — Scheduling appointment — Provide the patient/caregiver with instructions to do a phone call to a specific institution/organization for follow up Wisconsin Alzheimer's Institute





## **Clinic Operations**



- Clinic closures starting in March 2020 (N-10)
  - One clinic never closed
  - Four clinics reopened in June (one of them had continued to due home visits when closed)
  - Three clinics reopened during the summer
  - One clinic reopened in November
  - One clinic reopened in February 2021
- · Two clinics never reopened and will be permanently closed
  - Furloughed staff
  - Skilled nursing home location
- · Lakeshore Memory Clinic unique operational challenges



## **Clinic Operations**



- · Currently, in-person versus virtual (N=10)
- Eight Clinics have all team members seeing patients/families in-person
  One clinic has MD IPad Pro in office
  Once clinic has their collaborative organization's team member still virtual
- Demand for Evaluation (N=10)
  - Six clinics have seen a higher demand, five of those clinics are seeing more patients
  - Three clinics have not seen a change in demand; however, one of them does a back log due to just reopening the clinic. One not sure if there has been a change in demand
- Richland Hospital Clinic

  - Acquired 2019, moved from clinic building to hospital campus
    Has started a second clinical team that runs parallel (same day, neighboring suite); in prep for
    founding team members' retirements.







## **Biggest Challenges**



- 1. Communication challenges using masks
- 2. Community and government resources and services closed
- 3. Technology: lack of devices, out-of-date devices, lack of knowledge on how to use, lack of broadband
- 4. Cognitive testing administration
- 5. Restrictions with collateral contacts: no one allowed to attend in-person, to eventually only one family member can; additional family members stay in the car and call in using cell phone.





### **Biggest Challenges**



- 7. Seeing significant declines with patients
- 8. Isolation for patients and the impact it has on them
- 9. Increased mental health concerns and sleep issues
- 10. An increase in referrals
- 11. Transitions: no clinic, virtual, hybrid, in-person
- 12. Administration's support
- 13. Concern about getting COVID-19, being exposed







## Benefits and Opportunities



- 1. The pandemic forced the adaption of virtual options
- 2. Greater reach and appointment options due to virtual platforms
  - Virtual follow-up care visits
  - Seeing patients from several counties away
  - Can include additional family members in results appointment due to virtual format (restrictions on number of individuals that accompany patient are still in-place for most)
  - Family members that live out-of-state can participate
- 3. Caregivers have more online resources and educational offerings
- 4. Staff have access to more educational offerings, many are free and you don't have to deal with the logistics and costs related to travel.



## **Benefits and Opportunities**



5. Validation that most patients prefer the in-person services

similar challenges?

- The creativity of families, i.e. taught dad how to text so a daily morning check-in could be established
- 7. More home services available to patients (i.e. delivery)
- 8. Created individual staff scheduling flexibility with the elimination of services to closed settings (i.e. skilled nursing home, jail)
- New clinic entrance door, helps with stigma of going to a continuum care housing complex
- 10. Flu not an issue this past year





Did your team experience similar benefits & opportunities?

## **Practice Changes**



- Use of a results appointment; allows additional family members and those out of state to join the appointment. Such appointments can be done virtually or as a hybrid.
- More of the follow-up care visits are being conducted virtually.
   Family motivated to teach patient how to use technology to avoid the extra time and logistics to do in-person visit. They are able to attend with patient or from a different location.



## Polling #1 Questions



- 1. Have you noticed accelerated cognitive declines (more than expected) with established patients since the start of the pandemic?
- 2. Have you noticed accelerated functional declines (more than expected) with established patients since the start of the pandemic?
- 3. Have you noticed accelerated **physical** declines (more than expected) with established patients since the start of the pandemic?



## Polling #2 Questions



- Have you noticed any changes in the age group of referrals, i.e. patients that are younger?
- Since the start of the pandemic, have you noticed more behavioral and psychological symptoms (BPSD) with patients that had co-morbid psychiatric diagnosis?
- 3. Since the start of the pandemic, have you noticed more BPSD with patients that did not have a psychiatric diagnosis?



What would improve your ability to diagnose and provide care?

What changes to your practice have you adopted that you will continue?

What virtual tools would you miss if they were no longer an option?

What virtual tools would you like to see expanded?

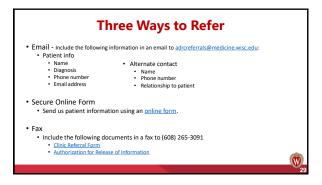
Most Difficult Case
Conference
Facilitate, Art Waszeak, MD
Waszerin Adheimer's Institute
Presenting Clinic, Circly Carleson, MD, MS
Madson VA Merrory Assessment Clinic
Discussert, Dottle Millier, MD
Northern Wiscorsin Merrory Diagnostic Center

## Research Recruitment and Referrals Bornie Nutkinson Azheimer's and Dementia Resource Center

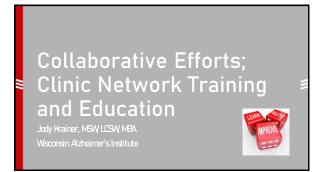
## **Open Studies Recruitment**

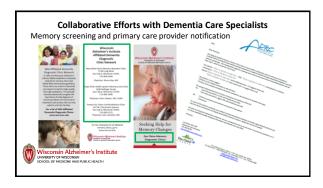
- We are recruiting the following people:
  - Diagnosis of mild cognitive impairment (MCI)
  - Diagnosis of dementia due to Alzheimer's disease
    - we are disclosing amyloid status to cognitively impaired participants who wish to learn this information (some exceptions apply)
  - Age 45-65 with or without a parental history of Alzheimer's disease (with normal cognition)
  - · Recruiting dyads
    - Caregiver of person with a dementia due to Alzheimer's disease diagnosis
    - Person diagnosed with dementia due to Alzheimer's disease (can live in a care facility)



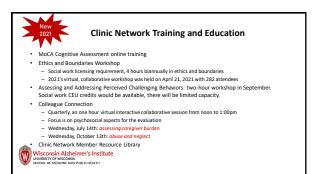












## **Closing Remarks**

Mark your calendars for the

- 19th Annual Update in Alzheimer's Disease and Related Dementias
- Building Applied Skills in Dementia Care Thursday, November 4, 2021
   The 19th Annual Alzheimer's Disease Update Friday, November 5, 2021
- The Fall Clinic Network Meeting Saturday, November 6, 2021

All participants will be emailed an evaluation link after today's meeting. Please help us out by providing feedback about the virtual meeting.

