## Dementia Takes a Village: Evaluation and Resources

Kathryn Agarwal, MD Katie Scott, MPH



#### **OBJECTIVES**



- Identify the benefits of diagnosing cognitive impairment as it relates to quality of life and health outcomes.
- Select tools to assist with the identification of dementia and support of patients with dementia and their families.
- Determine ways to connect with community resources to provide better support to patients with dementia and their caregivers.

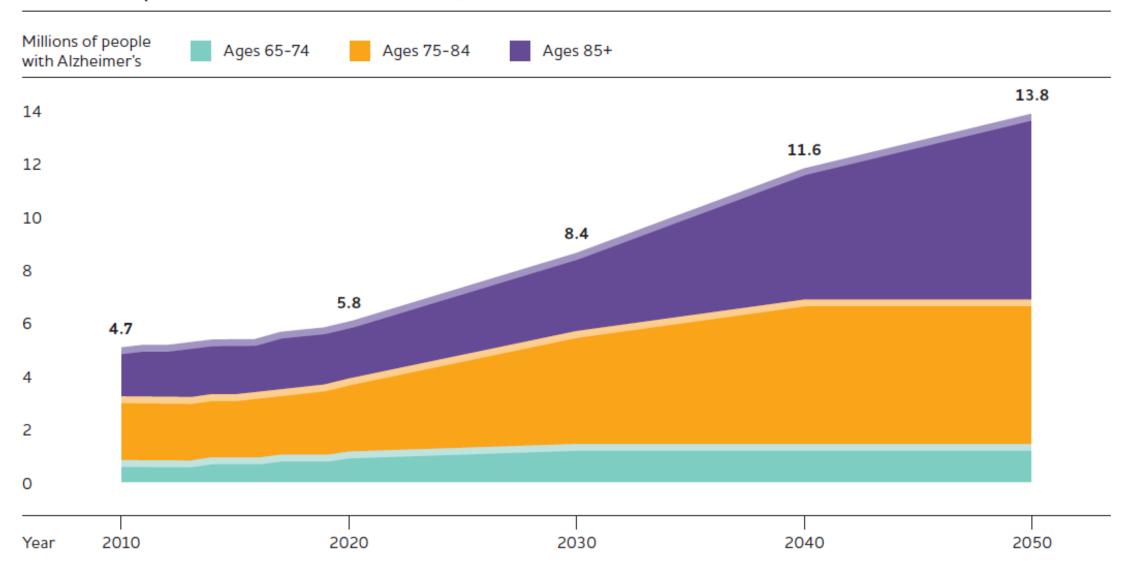
No Financial Disclosures for K. Scott or K. Agarwal

## SHOULD WE SCREEN FOR COGNITIVE IMPAIRMENT?



- The U.S. Preventive Services Task Force has concluded insufficient evidence to screen for cognitive impairment in older adults.
  - No treatments that will change the outcomes of disease
- **BUT...** most patients with cognitive impairment also have other medical conditions to manage and all have requirements to manage their household and finances.
- Contingencies- involvement of family and technology could be put into place to improve care of chronic illnesses. Financial planning and additional supports could be put into place to assist patients when the impairments are known.

Projected Number of People Age 65 and Older (Total and by Age) in the U.S. Population with Alzheimer's Dementia, 2010 to 2050



## MEDICAL CARE FOR DEMENTIA SOMETIMES FALLS SHORT



Prevalence of diagnosed Alzheimer's<sup>1</sup>

- 3% of people age 65-74
- 17% of people age 75-84
- 32% of people ≥85
- Less than 50% receive recommended evaluation for dementia diagnosis<sup>1</sup>
- Less than 50% of Medicare beneficiaries with a diagnosis of dementia are told they have the diagnosis<sup>1</sup>
- Most persons with dementia are cared for in primary care, but the typical PCP cares for only 25 older adults
  living with dementia<sup>2-4</sup>
- Half of caregivers of people with dementia indicate no experience performing nursing-related tasks and information for managing complex medication regimens<sup>1</sup>

<sup>1.</sup>Hebert LE, Weuve J, Scherr PA, Evans DA. Alzheimer disease in the United States (2010-2050) estimated using the 2010 Census. Neurology 2013;80(19):1778-83.https://www.alz.org/media/documents/alzheimers-facts-and-figures-2019-r.pdf
2. Callahan, C. M., Hendrie, H. C., & Tierney, W. M. (1995). Documentation and evaluation of cognitive impairment in elderly primary care patients. *Annals* of *internal medicine*, 122(6), 422-429.

<sup>3.</sup> Boustani, M., Callahan, C. M., Unverzagt, F. W., Austrom, M. G., Perkins, A. J., Fultz, B. A., ... Hendrie, H. C. (2005). Implementing a screening and diagnosis program for dementia in primary care. Journal of general internal medicine, 20(7), 572–577. doi:10.1111/j.1525-1497.2005.0126.x

<sup>4.</sup> Boustani, M., Sachs, G., & Callahan, C. M. (2007). Can primary care meet the biopsychosocial needs of older adults with dementia? Journal of general internal medicine, 22(11), 1625–1627. 1. Alzheimer's Association, 2019

## CASE PRESENTATION 78 YR OLD NEW PATIENT, MS. LONG



- Discharged 3 days ago
- Summary: new atrial fibrillation, with DM, HF, was rate controlled with amiodarone and warfarin added as new medication
- Comes in short of breath, HR 100 irreg, BP good, swelling in legs, mild crackles
- You review medications, she cannot tell you her medications or much about hospital stay
- Patient did not pick up new medications:
   "Line was too long at CVS"

### **Discharge Medications**

- 1. Warfarin 5 mg daily
- 2. Amiodarone 200mg 2x daily for 2 wks, then 1x daily
- 3. Insulin glargine 20 Units subQ nightly
- 4. Furosemide 40 mg daily
- 5. Metoprolol succinate 100 mg daily
- 6. Calcium 500 mg 3x daily
- 7. Vitamin D 1000 U daily

<u>Call Doctor</u> – need labs for PT/INR in less than 3 days

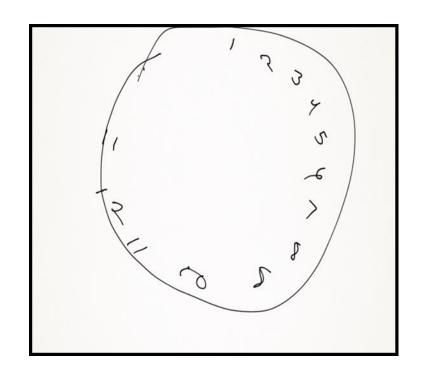
<u>Diet</u> - 2000 calorie diabetic diet and vitamin K restricted

#### MS. LONG COGNITIVE SCREENING RESULTS



- Ms. Long was readmitted twice in the next month with uncontrolled HF symptoms
- Case Management Note Before Discharge:

   "independent, lives alone, no self-care needs identified, will discharge home without homehealth"
- What if the patient and family had known about her cognitive impairment?



Mini-Cog Score 1/5 – consistent with dementia

#### NOW, WE HAVE A PROBLEM TO EVALUATE



- Take a history of cognitive issues and function
  - If family member not present, ask if they can come on follow-up visit
  - Discuss if they have noted any concerns or problems
  - Understand when problems may have started
  - What was their function and thinking like 1 year ago or other time intervals?
- Do an initial screening test for cognitive impairment
- Determine if there are functional impairments and concerns of impaired capacity for living independently
- If concerns of dementia, review medical history and medications
  - More in-depth cognitive testing, laboratory investigations and imaging
  - May refer to neurologist, or geriatrician

### 10 WARNING SIGNS / SYMPTOMS



- Memory loss that disrupts daily life
- Challenges in planning or solving problems
- Difficulty completing familiar tasks
- Being confused about time or place
- Trouble understanding visual images and spatial relationships
- New problems with words in speaking or writing
- Misplacing things and losing the ability to retrace steps
- Decreased or poor judgment
- Withdrawal from work or social activities
- Changes in mood and personality

# CAN SHE MANAGE INDEPENDENTLY? (ASK PATIENT AND INFORMANT)



- Activities of Daily Living (ADL's)
  - Ability to dress self
  - Toilet manage continence
  - Transfer from bed to chair / Ambulate
  - Bathe
  - Feed self

- Instrumental Activities of Daily Living (IADL's)
  - Finances
  - Transportation
  - Meal preparation
  - Shopping
  - Performing light housework
  - Using a telephone
  - Medication management

Try This Series – Hartford Institute for Geriatric Nursing Katz Scale ADL's, Lawton Scale IADL's

#### **DEFINITION**



- Nomenclature changed with DSM V → Major neurocognitive disorder
- Major Neurocognitive Disorders include dementia, must have significant cognitive decline in memory or another cognitive ability, that interferes with everyday life
- Mild Neurocognitive Disorders include Mild Cognitive Impairment evidence of cognitive decline but not interfering with function.

Be mindful of patient and family understanding

#### DEMENTIA ETIOLOGIES



#### Dementia is a general term under which fall many specific etiologies

- Alzheimer's
- Vascular
- Mixed
- Lewy body
- Pick's disease and Parkinson's dementia
- Fronto-temporal
- ETOH
- Head injury

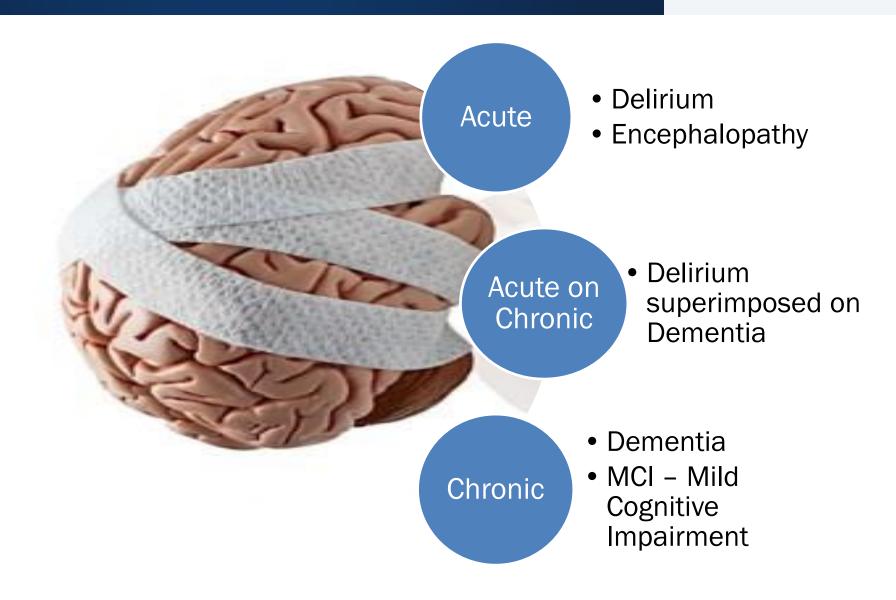


Also in the differential → Delirium, Depression

12

## COGNITIVE IMPAIRMENT: IS THIS ACUTE OR CHRONIC CI?





#### MEDICATIONS AND CI



- Review medications for those that may affect cognition
  - American Geriatric Society's Beers Criteria
- Sedatives/sleep/anxiolytics. Also look for medications that may cause hyponatremia, hypoglycemia, or hypotension

Anti-Depressants	Anti-Histamines	Anti- Muscarinic/Other	Anti-Spasmodics	Anti- Emetics/Psychotics
Paroxetine	Diphenhydramine	Oxybutynin	Cyclobenzaprine	Promethazine
Amitriptyline	Hydroxyzine	Tolterodine	Scopolamine	Prochlorperazine
Nortriptyline	Meclizine	Solifenacin	Belladonna alkaloids	Chlorpromazine
Doxepin (>6 mg)	Cyproheptadine	Digoxin	Dicyclomine	Olanzapine
Imipramine	Brompheniramine	Clonidine		
	Hyoscyamine			

#### CLINICAL EVALUATION



#### History

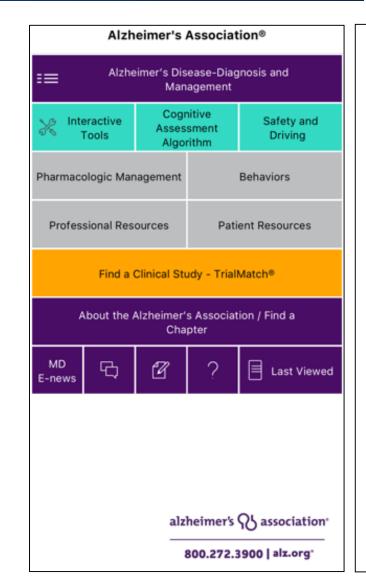
- Symptoms and Timing
- Input from family
- Functional Status
- Head injury
- Family history
- Medications

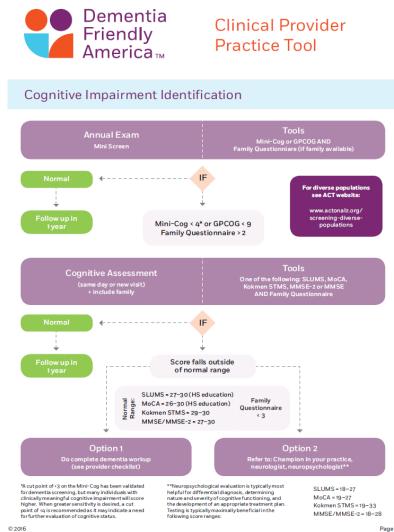
Physical exam Labs Imaging

#### **GUIDES**

Alzheimer's Disease Pocketcard
Professionals Tab (download free app)
<a href="http://www.alz.org/health-care-professionals">http://www.alz.org/health-care-professionals</a>

Dementia Friendly America – Provider Tools <a href="https://www.dfamerica.org/provider-tools">https://www.dfamerica.org/provider-tools</a>







- Little interaction /signs of cognitive issues until brought in by caregivers in October
- 82 yr old female, lives alone, history of hypertension, chronic heart failure, severe hearing deficits
- Last hospitalized Dec 2018 hypertensive emergency
  - Refused assistance of care advisors and home health after discharge
- F/u w PCP in May 2019 headaches, high BP, out of medications x 3 wks
  - Refilled meds amlodipine 5mg 2x/day, metoprolol XL 25mg daily, perindopril 4mg daily, hydrochlorothiazide 12.5mg daily, ?oxybutynin
- Return June 2019 did not know BP's, said HH nurse monitoring
  - Alert and oriented, behavior normal, patient to have nurse give info to MD
  - Home Health Nursing following in September has a Social Work eval with Home Health
  - Small print on faxed report- SW speaks to Granddaughter who gives name of APS worker, says neighbors help her with care needs, and APS reports that patient is paranoid, not taking medications as prescribed, but "competent" so they will not send a psychiatrist to evaluate her
  - SW offered many resources, patient did not accept or said she might call later



- October 15 Patient returns to PCP clinic
- Patient called a few days before no food or medications.
- Her legal guardians (present but not in the room for the encounter) insist was not true.
- Very hard of hearing
- "Patient drives the discussion... focused on people (including family and caregivers) trying to steal, a granddaughter who she reports has moved into her living room unwanted and is prostituting herself, and other persecutory concerns which are refuted by the guardians"

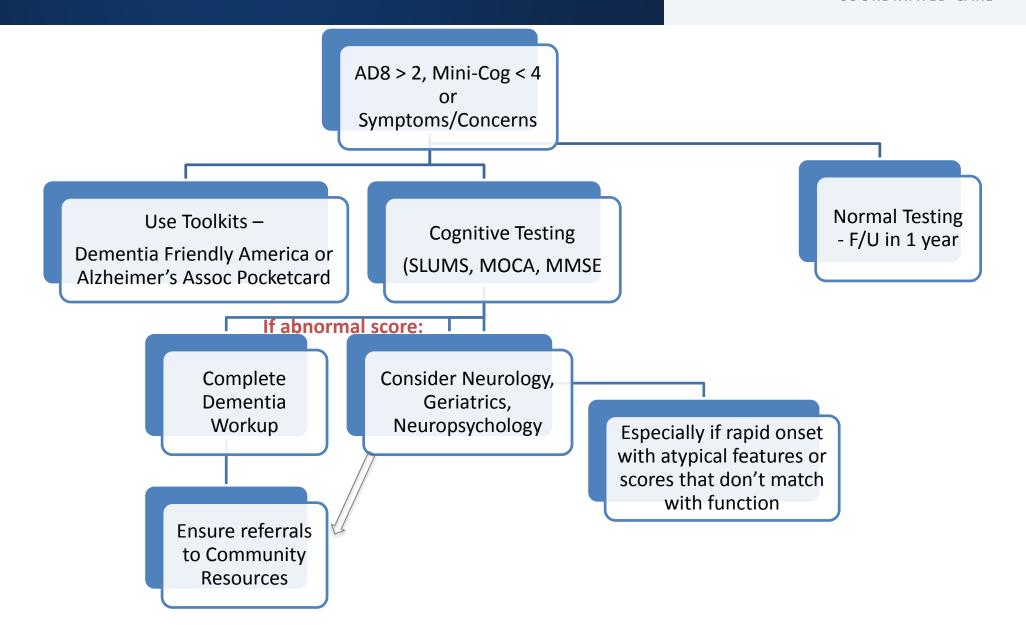
### What should you do?



- Lesson # 1 Need a Diagnosis
- APS will not intervene & Power of Attorney unable to Intervene
- Refusal Difficult to Participate in Cognitive Testing
  - Obtain history on cognition and function from others
  - Hearing -
    - Use stethoscope as a microphone, Hearing amplifier for Office Use
  - Tips for getting information on cognitive function
    - Working memory questions into normal exam
    - Ask questions about how they handle problems
    - Questions on speech and thinking ARE normal parts of exam
    - "Prove the informant wrong"
  - Attempt a Shorter Cognitive Screen

#### EVALUATION FOR COGNITIVE IMPAIRMENT





#### NANTZ NATIONAL ALZHEIMER CENTER



- Specialty Center at HMH Focused on Dementia
- Comprehensive neurological evaluation
  - Formal neuropsychiatric testing
  - Evaluation by cognitive neurologist
  - Laboratory studies and advanced neuro-imaging
- Strong social work outpatient team
- Dementia diagnosis and planning for care
- Extensive research opportunities for patients and families
- Patient self referrals (713-441-1150) and/or physician referrals (fax 713-791-5125) average wait time: 2-4 months but varies

#### COGNITIVE ASSESSMENT FOR DEMENTIA



AD8 – Eight-item Informant / Patient Interview
Mini-Cog (www.Mini-Cog.com)

MOCA (Montreal Cognitive Assessment) \*charges to begin
SLUMS (St. Louis University Mental Status Exam)



Folstein MMSE – has no measure of executive function

#### **Need Instructions?**

Alzheimer's Disease Pocketcard - Professionals Tab (download free app)

http://www.alz.org/health-care-professionals/cognitive-tests-patient-assessment.asp#cognitive\_screening

#### AD8 SCREEN - INFORMANT BASED SCREEN



Informant or Patient May Answer Questions. Sensitive to detecting early cognitive changes associated with many common dementing illnesses

- 1. Problems with judgment (e.g., problems making decisions, bad financial decisions)
- 2. Less interest in hobbies/activities
- 3. Repeats the same things over and over (questions, stories, or statements)
- 4. Trouble learning how to use a tool, appliance, or gadget (e.g., VCR, computer, microwave, etc)
- 5. Forgets correct month or year
- 6. Trouble handling complicated financial affairs (e.g., checkbook, income taxes, paying bills)
- 7. Trouble remembering appointments
- 8. Daily problems with thinking and/or memory

https://www.alz.org/media/Documents/ad8-dementia-screening.pdf

#### MINI COG – DEMENTIA SCREEN



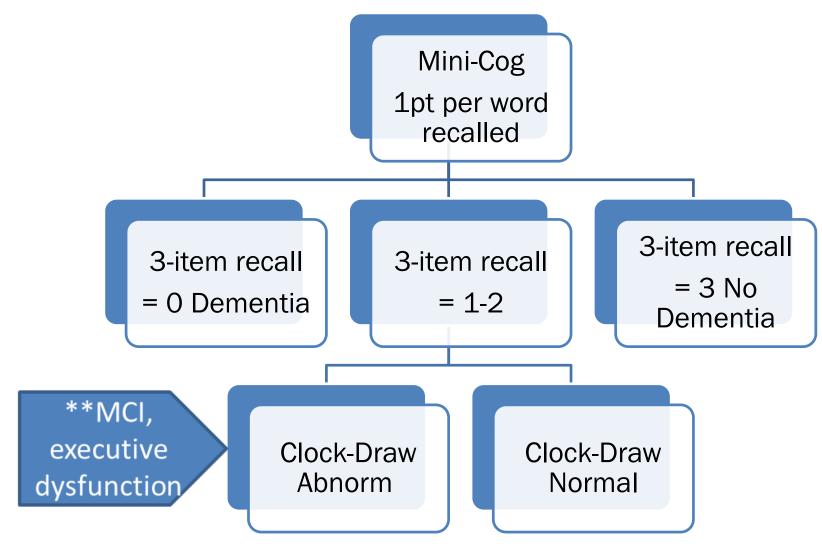
- Screening Tool for Dementia Not Diagnosis Cochrane Review 2015
- Older adults, multiple languages, ethnicities, & literacy levels tested
- Sensitivity 76-99%, Specificity 89-93%

#### Instructions

- Listen carefully, give patient 3 unrelated words & patient repeats back
  - Suggested "Banana, Sunrise, Chair" or "River, Nation, Finger"
- Give large circle, ask patient to draw a clock
  - Place the numbers and set time "ten minutes after eleven"
  - 3 minute limit on clock draw task
- Ask patient to recall previous words

#### MINI-COG – SCORING ALGORITHM





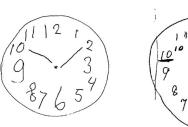
Borson, 2000

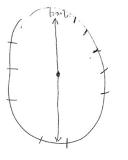
#### **EXECUTIVE DYSFUNCTION**

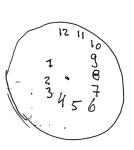


 Executive Function – refers to the higher-level cognitive skills used to control and coordinate other cognitive abilities and behaviors

- Dysfunction may include:
  - Difficulty with risk-benefit decisions
  - Difficulty with abstract concepts
  - Difficulty in planning and initiation
  - Inability to multitask
  - Loss of interest in activities
  - Unawareness or denial that their behavior is a problem
  - Trouble planning for the future
- Association with Frontal Lobe Problems, Association with Vascular/Small Vessel Ischemic Disease, Diabetes, Heart Failure







#### MOCA - CHANGING NOW



- https://www.mocatest.org
- Mandatory Training for MoCA Testing 9/1/2019
- After September 1st 2020, access to the test will be restricted to certified raters only. Users must be trained and certified for a fee of \$125 and recertify every 2 years. To use electronic app, \$10/month per rater
- Certification 1 hour online
- Patient information must be submitted with testing results online for central scoring (JAGS Sept 2019)https://doi.org/10.1111/jgs.16158
- More testing options electronic App vs paper, Basic, Blind, with MIS (memory index score to predict MCI to AD conversion), 100 languages

#### SLUMS EXAM

- 30 point exam-similar to MOCA
- Created by VA tested most in Veterans
- Found in 2 studies to be better at detecting Mild Cognitive Impairment or early disease than MMSE
- Found to discriminate between MCI & major depression in 148 veterans
- Spanish versions available

2013 Am J Geri Psychiatry, vol 21. 2017 J Applied Neuropsychology. Psychometric Properties of SLUMS

#### Saint Louis University

#### Mental Status (SLUMS) Examination

Na	imeAge
Is j	patient alert?Level of education
1	1. What day of the week is it?
1	2. What is the year?
1	3. What state are we in?
	4. Please remember these five objects. I will ask you what they are later.  Apple Pen Tie House Car
	5. You have \$100 and you go to the store and buy a dozen apples for \$3 and a tricycle for \$20.
<b>1</b> 2	How much did you spend? How much do you have left?
0	6. Please name as many animals as you can in one minute. 0-5 animals 15-10 animals 2 10-15 animals 3 15+ animals
5	7. What were the 5 objects I asked you to remember? 1 point for each one correct.
0	8. I am going to give you a series of numbers and I would like you to give them to me backwards. For example, if I say 42, you would say 24.
_	9. This is a clock face. Please put in the hour markers and the time at ten minutes to eleven o'clock.
2	Hour markers okay
2	Time correct
0	10. Please place an X in the triangle.
•	Which of the above figures is largest?

- - I am going to tell you a story. Please listen carefully because afterwards, I'm going to ask you some questions about it.

Jill was a very successful stockbroker. She made a lot of money on the stock market. She then met Jack, a devastatingly handsome man. She married him and had three children. They lived in Chicago. She then stopped work and stayed at home to bring up her children. When they were teenagers, she went back to work. She and Jack lived happily ever after.

What was the female's name? When did she go back to work?

High School Education

What work did she do? What state did she live in?

ooooo Dementia oooooooooooooo l-14

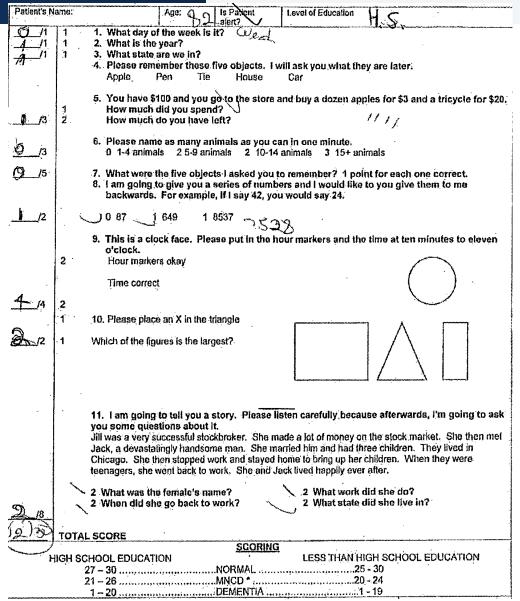


#### SLUMS RESULTS OF CASE STUDY



### Score 12/30

- <19 consistent with Dementia in a High School level education
- Very poor recall
- Executive function unable to do word list generation, but able to draw clock.





- PCP attempted Mental Status Testing- patient would only answer the day
- "Delusional incorrect view of world likely due to dementia" what to do?
- Full labs/urinalysis ordered, urinalysis unable to obtain labs normal

- Referral made to HMCC Care Advisor to Help with Case
- Where can the Care Advisor / PCP turn for Information & Assistance?
  - Home Health Nurses and Social Worker
  - Adult Protective Services
  - BakerRipley Dementia Specific Case Manager

#### CASE STUDY 1: WHAT TO DO?



- Referral to HMCC Care Manager
  - She contacted Home Health who told her about APS
  - Spoke more with patient who gave her APS information as well
- Home Health had stopped going due to patient not going to MD & frequent refusals
  - Care Manager obtained orders to restart HH to get urinalysis and check on patient
- Called APS Case Worker informed of concerns & made plans together
- Made referral to BakerRipley Dementia Case Manager for Assistance

#### COMMUNITY RESOURCES CAN HELP



- Education, Information and Referral (i.e. Alzheimer's Association)
- Direct Services (i.e. BakerRipley)
  - Case Management
  - Caregiver Support and Consultation
  - Dementia Day Center
- Emergency Services (i.e. APS)
  - Abuse
  - Neglect (including self-neglect)
  - Exploitation



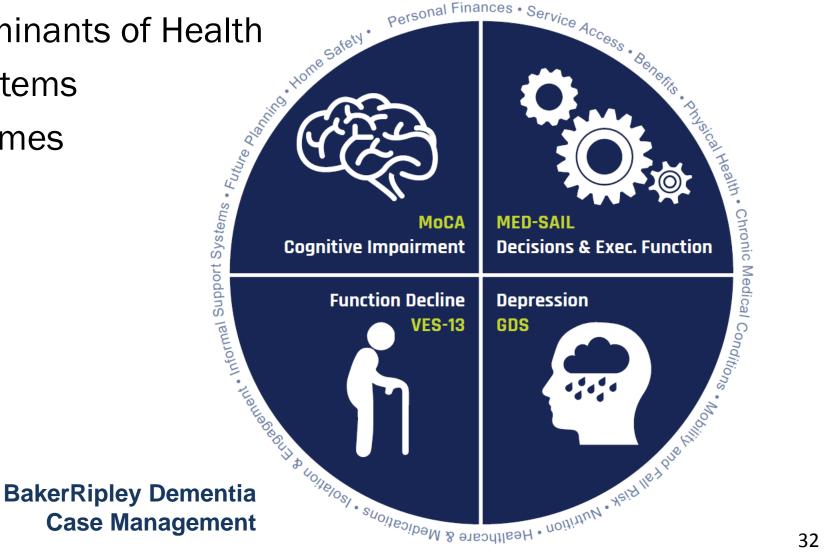
#### HOW DIRECT SERVICES HELP



Address Social Determinants of Health

Establish Support Systems

Improve Health Outcomes



#### RESOLUTION AND WHAT BAKERRIPLEY DID



- Primary Actions:
  - In-home assessment (safety and hygiene issues)
  - Addressed Hearing Impairment
  - Scheduled a Full Geriatric Evaluation including Cog. Assessment
  - Followed up with APS and Guardianship Cases
- Transferred to hospital during evaluation due to unstable heart rate;
   discharged to rehab facility
- Current State: Complicated (battle over POA/Guardianship)—
   Facility/Client/Family not required to follow up so unable to assist further.

### ADULT PROTECTIVE SERVICES (APS)



- Focused on abuse, neglect, and exploitation
- Specialists initiates investigation within 24hrs
- Cases are prioritized based on severity and immediacy of alleged threat
- Can expedite service initiation and provision of emergency services
- Limitations:
  - Generalists (Only recently required to have dementia training—Texas HB 4328)
  - Not required to follow up with referral source
  - Dementia causes challenges related to capacity and access

#### CASE STUDY 2: MS. S.



- 74 year old female (referred by daughter—long distance)
- Referral reasons:
  - Future planning
  - Decline in executive function (not paying bills, buying online)
  - Kept going to the doctor for various ailments (delusions/panic/paranoia)—high anxiety
- Diagnoses: had a seizure and was referred to neurologist (received dementia diagnosis at that time); anxiety disorder, hypertension

How do you help the patient and long-distance caregiver?

## CASE STUDY 2 – BAKERRIPLEY INTERVENTIONS AND OUTCOMES



#### Initial:

- Provider services in place in the home
- Medication management (8+ meds: Donepezil, Escitalopram, Levetiracetam, Losartan, Meloxicam, Quetiapine, Levothyroxine, Omeprazole, Vitamin D)

#### Ongoing:

- Transitioned into safer living situation (AL) with med management
- Identified melanoma—arranged removal and wound care
- Addressed isolation through volunteer program
- Managing state benefits (needed recertification)
- Continued transportation and advocacy with medical treatments (new diagnoses—Osteopenia)

#### CASE STUDY 2: ROLE OF PROVIDER



# The success of this case is directly related to the health care provider.

Family Medicine Physician (primarily worked with children)

- Communicative
- Proactive about safety concerns
- Good bedside manner
- Listens well to both patient and case manager
- Includes patient in all conversations

#### PRIMARY LESSONS - MEDICAL



#### Diagnosis / Work-up: Alzheimer's App & Dementia Friendly America Tools

- Cognitive Impairment Evaluation
  - Time Course is Key -
    - Acute/Subacute vs Chronic vs Acute Superimposed on Chronic
    - Look for Medications and Medical Illness Yielding Confusion
- Evaluation for Chronic Cognitive Impairment should include
  - Memory Ability to Learn new Information
  - Executive Function Ability to Manage Complex Tasks / Decisions
  - Functional Status Ability to Manage Issues in Daily Life
    - Must have Functional Impairment for Diagnosis of Dementia
- Critical to give diagnosis and to place meaningful supports for patient well-being

#### PRIMARY LESSONS - RESOURCES



- Cognitive screening earlier reduces issues with advanced directives and future planning.
- What you see in the office visit is only a small portion of what could be happening at home.
- Communication and care coordination is essential to provide wrap around care.
- Better to be safe than sorry, refer sooner so safety nets can be set up.

#### How to Refer

Option 1: Contact a HMCC Care Manager

Option 2: Send a secure email\* to dementia@bakerripley.org and include the following information:

- Patient Name
- Phone Number
- Caregiver's name and phone number (if applicable)
- Description of key patient issues

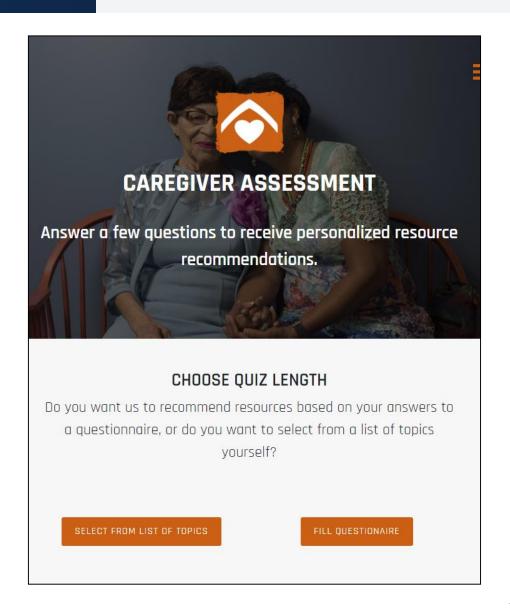
A BakerRipley Intake Counselor will contact the patient within 2 to 3 business days.

\*BakerRipley is a HIPAA compliant entity with access to the HMCC Epic System.

#### RESOURCES



- Alzheimer's Association 24/7 Helpline:
   1-800-272-3900
- United Way 2-1-1
- BakerRipley Dementia and Caregiver Support Services
  - Careline: 713.685.6577
  - dementia@bakerripley.org
  - Caregiver.bakerripley.org



#### TAKE ACTION



#### **Educate**

 Share these resources with your teams

#### Refer

 Connect families affected by dementia to services

#### Coordinate

 Work with community partners to provide better care

Email: <u>dementia@bakerripley.org</u>

Call: 713.685.6577