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Together for Tomorrow

Geriatric Syndrome

Delirium

Learning Objectives

Delirium

At the conclusion of the module on delirium and the older adult, the learner should:

KNOW

- Differing clinical presentations of delirium
- Risk factors and potential etiologies of delirium

DO

- Utilize a plan for the assessment of delirium
- Practice prevention strategies

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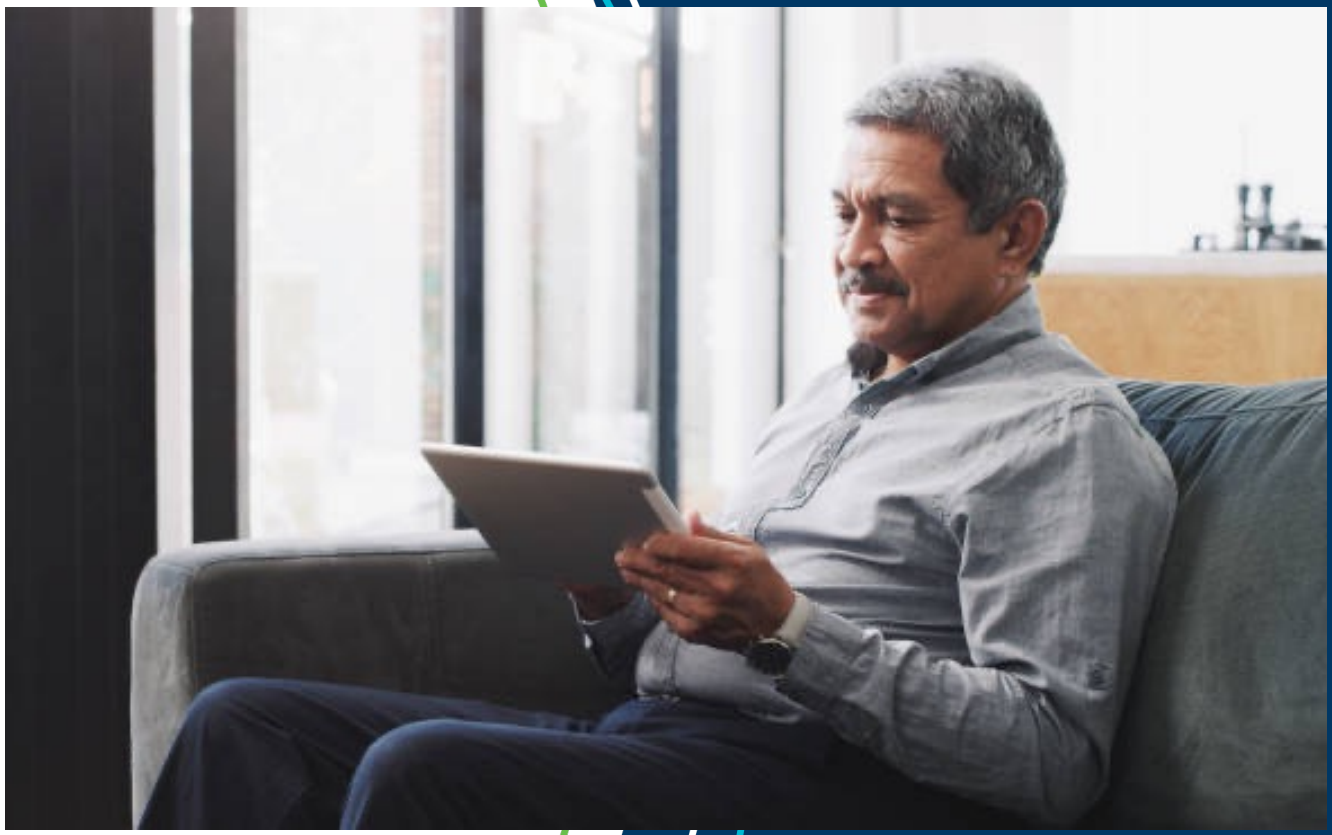
Case 1

Mr. Diaz

Mr. Diaz is an 82-year-old Hispanic male who resides in a local assisted living facility.

He is brought to the Emergency Department by his daughter. His daughter states that the patient is agitated and confused and will only speak to her in Spanish, which is not typical for the patient, who is fluent in Spanish and English. She states this is getting worse and he cannot focus on questions she is asking him.

Mr. Diaz is yelling that he needs to go check on his wife right away. The patient's daughter explains that her mother passed away 15 years ago.



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Definitions

- Geriatric Syndrome
- Screenings
- Assessments
- Treatment
- Delirium

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Definitions

Geriatric Syndrome

- A multifactorial condition that is prevalent in older adults and develops when an individual experiences accumulated impairment in multiple systems that compromise their compensatory abilities.

- Common geriatric syndromes include Cognitive Impairment, Chronic/Persistent Pain, **Delirium**, Depression, Falls, Frailty, Incontinence, Malnutrition, Polypharmacy, Pressure Injury(ies), and Sleep Disturbance.

Definitions

Screenings

- Screening tools are tests or measures to evaluate for diseases and health conditions before symptoms appear.
- Screenings allow for earlier management and referral to appropriate providers.
- An age-friendly provider conducts screenings for conditions that are prevalent in older adults.

Definitions

Assessments

- Assessment tools are tests and measures used to evaluate the patient's presenting problem, confirm a diagnosis, determine its severity, and aid in identifying specific treatment options.

- An age-friendly provider uses appropriate assessments, makes referrals, and communicates with the patient's care providers.

Definitions

Treatment

- An age-friendly care provider considers the 4Ms when making treatment recommendations so that what matters to the patient is always part of the plan of care.

- An age-friendly provider communicates with the patient, family, and interdisciplinary team.

Definitions

Delirium

- An acute, fluctuating, and frequently reversible disturbance of mental function. The etiologies of delirium are diverse and multifactorial. Often, delirium reflects the pathophysiological consequences of an acute medical illness, medical complication, or drug intoxication.

Delirium Statistics

Prevalence

In which setting does delirium most often present?

A 2020 national poll…

1-2%	15-53%	70-80%
Community setting	Post-op (individuals 65 and older)	ICU (Individuals 65 and older)

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Delirium Statistics

Cost

Financial Burden

Quantifying financial burden of delirium is difficult due to its association with other medical comorbidities

Economic Impact

Delirium is estimated to rival the healthcare costs of falls and diabetes. [7]

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Delirium Impact

Impact

Longer Hospital Stays

Increase in Mortality During Hospital Stay

Loss of Autonomy

Increased Risk of Requiring Nursing Home Placement

Cognitive Decline[8]

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Delirium Risk Factors

Risk Factors

- Advanced Age
- Vision Loss
- Hearing Loss
- Severe Illness
- Infection
- Fractures
- **Cognitive Impairment**
- Underlying Brain Disease
- **Frailty**
- **Malnutrition**
- Sleep Deprivation
- Undertreated Pain
- Immobility
- **Polypharmacy**

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Delirium

Facts

- Delirium must be ruled out before a diagnosis of dementia can be made
- Delirium is missed in more than 50% of cases.[3]
- Dementia and Delirium can easily be confused.
- Understanding patient's baseline mental state is critical- talk with family or caregiver!

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Screening

Assessment

Treatment

Confusion Assessment Method (CAM) or CAM-ICU

The Confusion Assessment Method Instrument:

1. ***[Acute Onset]*** Is there evidence of an acute change in mental status from the patient's baseline?

2A. ***[Inattention]*** Did the patient have difficulty focusing attention, for example, being easily distractible, or having difficulty keeping track of what was being said?

2B. ***(If present or abnormal)*** Did this behavior fluctuate during the interview, that is, tend to come and go or increase and decrease in severity?

3. ***[Disorganized thinking]*** Was the patient's thinking disorganized or incoherent, such as rambling or irrelevant conversation, unclear or illogical flow of ideas, or unpredictable switching from subject to subject?

4. ***[Altered level of consciousness]*** Overall, how would you rate this patient's level of consciousness? (Alert [normal]; Vigilant [hyperalert, overly sensitive to environmental stimuli, startled very easily], Lethargic [drowsy, easily aroused]; Stupor [difficult to arouse]; Coma; [unarousable]; Uncertain)

5. ***[Disorientation]*** Was the patient disoriented at any time during the interview, such as thinking that he or she was somewhere other than the hospital, using the wrong bed, or misjudging the time of day?

6. ***[Memory impairment]*** Did the patient demonstrate any memory problems during the interview, such as inability to remember events in the hospital or difficulty remembering instructions?

7. ***[Perceptual disturbances]*** Did the patient have any evidence of perceptual disturbances, for example, hallucinations, illusions or misinterpretations (such as thinking something was moving when it was not)?

8A. ***[Psychomotor agitation]*** At any time during the interview did the patient have an unusually increased level of motor activity such as restlessness, picking at bedclothes, tapping fingers or making frequent sudden changes of position?

8B. ***[Psychomotor retardation]*** At any time during the interview did the patient have an unusually decreased level of motor activity such as sluggishness, staring into space, staying in one position for a long time or moving very slowly?

9. ***[Altered sleep-wake cycle]*** Did the patient have evidence of disturbance of the sleep-wake cycle, such as excessive daytime sleepiness with insomnia at night?

Confusion Assessment Method (CAM)

The diagnosis of delirium by CAM requires the presence of BOTH features ***A*** and ***B***		
CAM Confusion Assessment Method	**A.** **Acute onset** **and** **Fluctuating course**	Is there evidence of an acute change in mental status from patient baseline? Does the abnormal behavior: ➢ come and go? ➢ fluctuate during the day? ➢ increase/decrease in severity?
	B. **Inattention**	Does the patient: ➢ have difficulty focusing attention? ➢ become easily distracted? ➢ have difficulty keeping track of what is said?
	AND the presence of EITHER feature *C or D*	
	C. **Disorganized thinking**	Is the patient's thinking ➢ disorganized ➢ incoherent For example does the patient have ➢ rambling speech/irrelevant conversation? ➢ unpredictable switching of subjects? ➢ unclear or illogical flow of ideas?
	D. **Altered level of consciousness**	Overall, what is the patient's level of consciousness: ➢ alert (normal) ➢ vigilant (hyper-alert) ➢ lethargic (drowsy but easily roused) ➢ stuporous (difficult to rouse) ➢ comatose (unrousable)

Adapted with permission: Inouye SK, vanDyck CH, Alessi CA, Balkin S, Siegal AP, Horwitz RI. Clarifying confusion: The Confusion Assessment Method. A new method for detection of delirium. *Ann Intern Med*. 1990; 113: 941-948.
Confusion Assessment Method: Training Manual and Coding Guide, Copyright 2003, Hospital Elder Life Program, LLC.

Confusion Assessment Method for the ICU (CAM-ICU)

Instructions: To evaluate for the presence of delirium in your patient, complete this clinical assessment every shift (8-12 hours).

CAM-ICU is a valid and reliable delirium assessment tool recommended by the Society of Critical Care Medicine (SCCM) in its 2013 Pain, Agitation, and Delirium (PAD) guidelines.

CAM-ICU	Criteria	✓ Present
FEATURE 1: Alteration/Fluctuation in Mental Status		
▪ Is the patient's mental status different than his/her baseline? **OR** ▪ Has the patient had any fluctuation in mental status in the past 24 hours as evidenced by fluctuation on a sedation scale (eg, RASS, Glasgow Coma Scale [GCS]), or previous delirium assessment?	If Yes for either question ▶	☐
FEATURE 2: Inattention 1: Alteration/Fluctuation in Mental Status		
Letters Attention Test: Tell the patient *"I am going to read to you a series of 10 letters. Whenever you hear the letter 'A,' squeeze my hand."* **SAVEAHAART** Count errors (each time patient fails to squeeze on the letter "A" and squeezes on a letter other than "A").	If number of errors >2 ▶	☐
FEATURE 3: Altered Level of Consciousness (LOC)		
▪ Present if the RASS score is anything other than Alert and Calm (zero) **OR** ▪ If SAS is anything other than Calm (4)	If RASS ≠0 **OR** SAS ≠4 ▶	☐
FEATURE 4: Disorganized Thinking		
Yes/No Questions: Ask the patient to respond: 1. Will a stone float on water? 2. Are there fish in the sea? 3. Does 1 pound weigh more than 2 pounds? 4. Can you use a hammer to pound a nail? Count errors (each time patient answers incorrectly). **Commands:** Ask the patient to follow your instructions: a) *"Hold up this many fingers."* (Hold 2 fingers in front of the patient.) b) *"Now do the same thing with the other hand."* (Do **not** demonstrate the number of fingers this time.) ☐ If unable to move both arms, for part "b" of command ask patient to "Hold up one more finger." Count errors if patient is unable to complete the entire command.	If combined number of errors >1 ▶	
If Features 1 and 2 are both present and either Features 3 or 4 are present: ***CAM-ICU is positive, delirium is present***	**Delirium present** ☐ **Delirium absent** ☐	

Definitions

Dementia

- The progressive decline of cognitive functioning and behavioral abilities to such an extent that it interferes with a person's daily life and activities. These functions include memory, language skills, visual perception, problem-solving, self-management, and the ability to focus and pay attention.

More Resources

Delirium vs Dementia

	Delirium	Dementia
Onset of Symptoms	Acute (hours/days)	Insidious (months/years)
Symptoms	• Disturbance in consciousness with reduced ability to focus, sustain or shift attention • Acute change in cognition	• Progressive decline in memory and at least one other area (attention, orientation, judgement, abstract thinking and personality).
Etiology	Usually related to acute medical illness, medical complication or drug intoxication	Unknown
Reversible?	Yes	No

Delirium vs Dementia

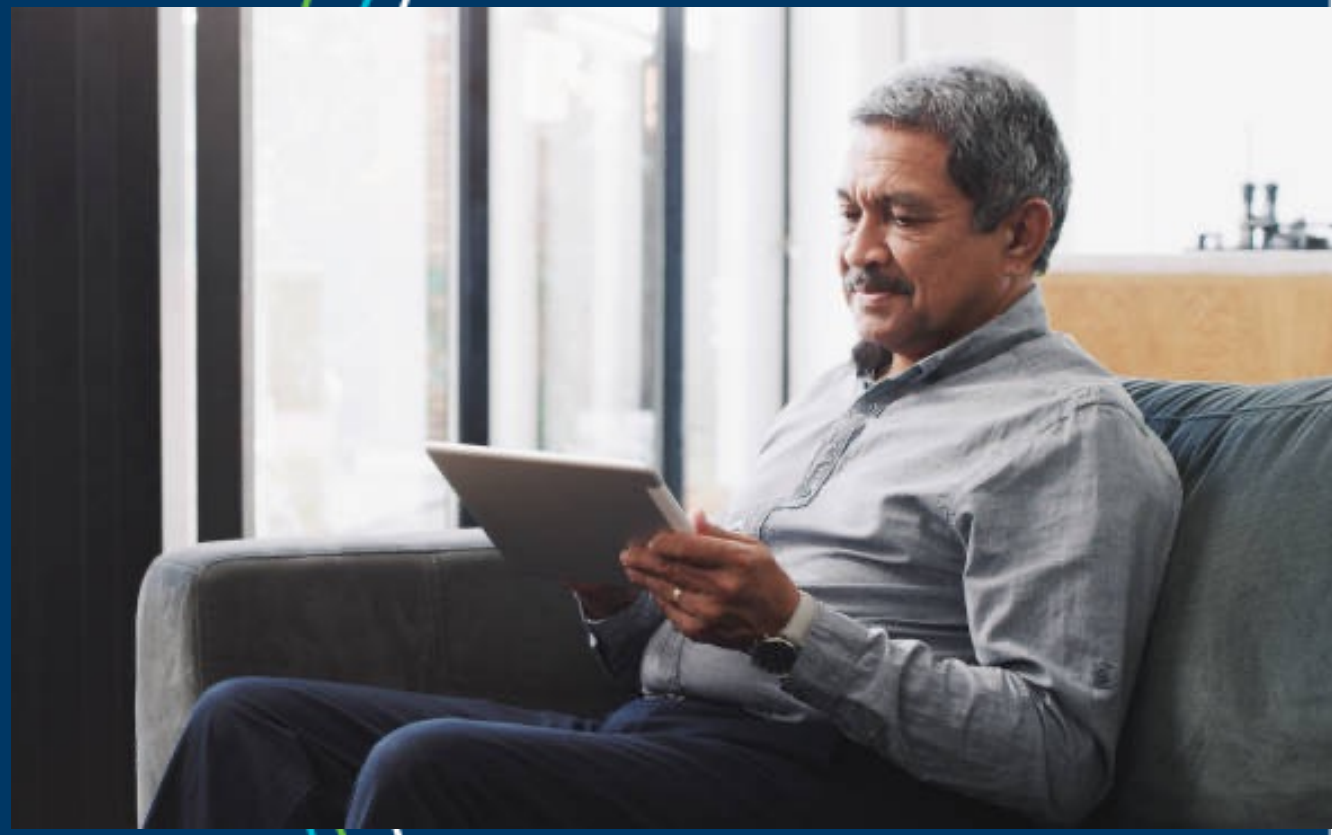
	Delirium	Dementia

Treatment	Treat underlying etiology	• No cure is available.
		• Medications aim to slow the progression:
		  • Cholinesterase Inhibitors
		  • NMDA antagonists

Age-Friendly Treatment – Delirium

- Identify and treat the underlying acute illness or adverse effect.
- Supportive care concurrently as the underlying cause is being addressed
- Avoid **polypharmacy**, dehydration, immobilization, and sensory impairment-all known to exacerbate delirium.
- Manage agitation

Remember Mr. Diaz?



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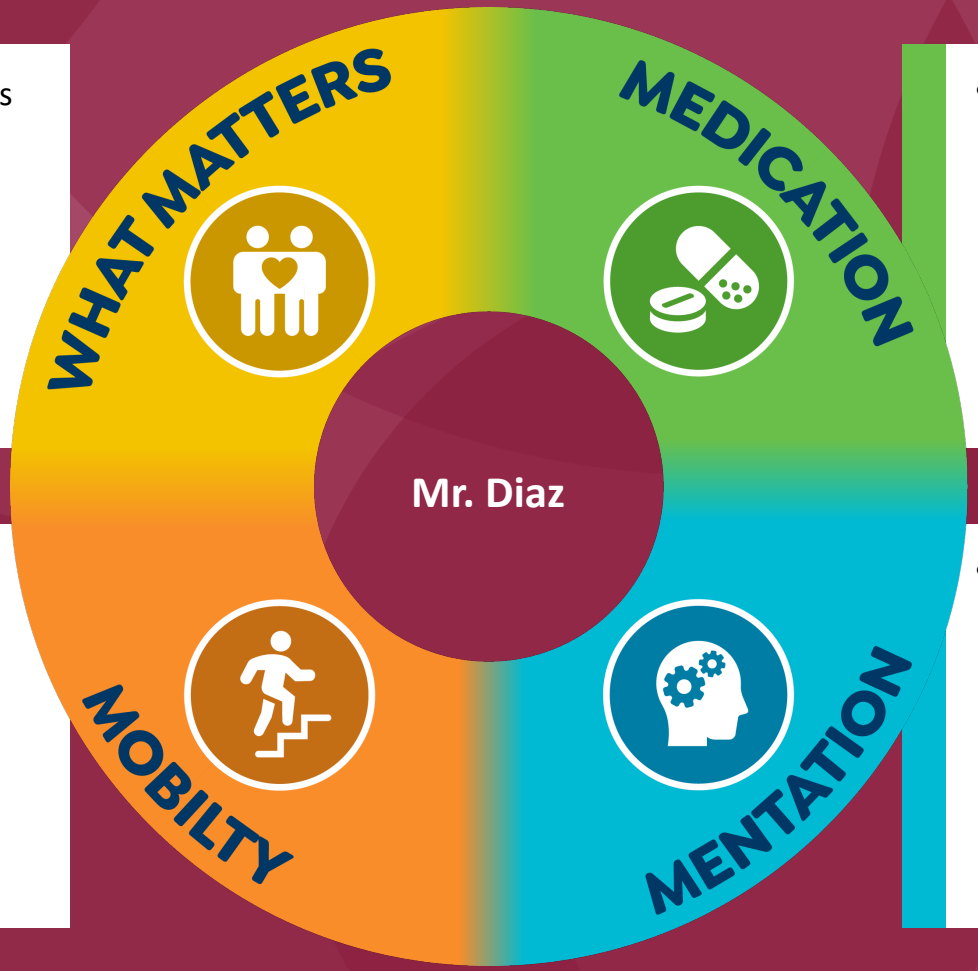
Unfriendly Care (4Ms)

- His concern about the well-being of his wife is dismissed "Now Mr. Diaz, you know that your wife passed away 15 years ago!"



- No consideration of medications as possible etiology of delirium or review for recently changed medication regimen.

- No review of for any recent change in mobility or recent falls.
- Patient arms are restrained.

- Dementia diagnosis is presumed, despite daughter's explanation that this is not her Dad's baseline.

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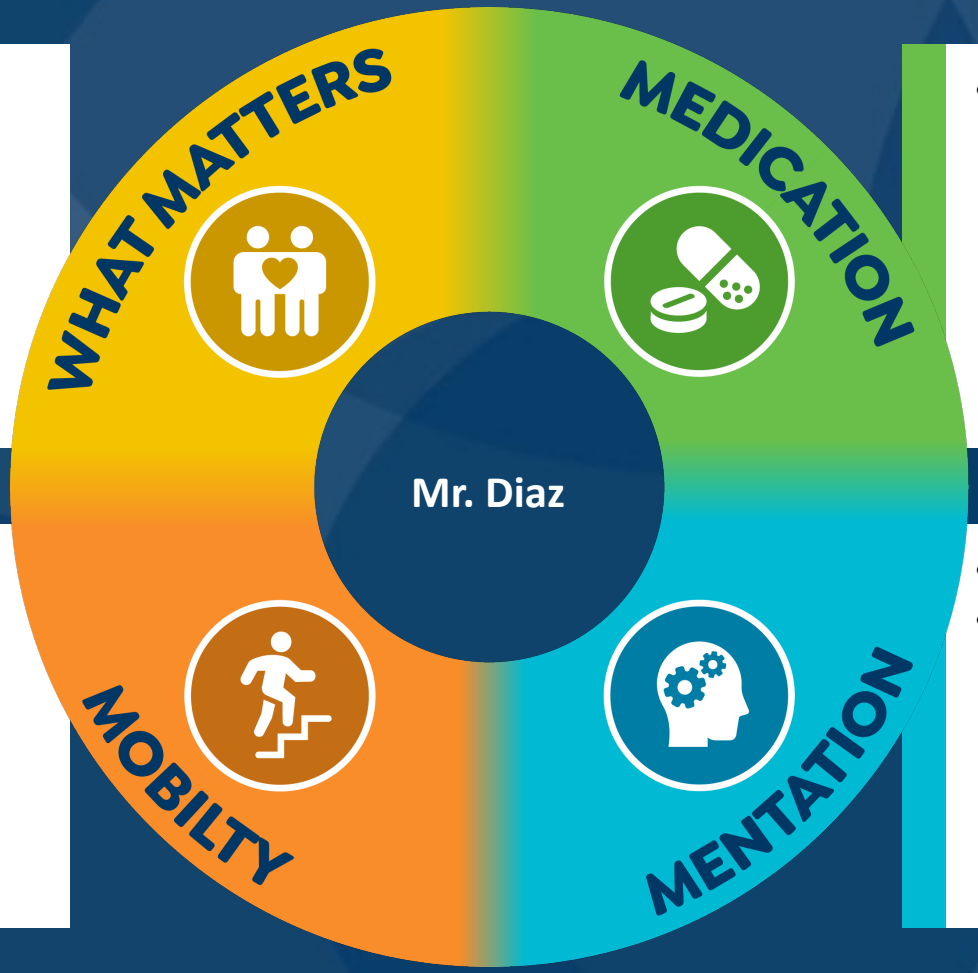
Age-Friendly Care (4Ms)

- Assurance that his family is safe.
- Maintaining functional independence.
- Maintaining relationships with loved ones.



- Review medications for possible polypharmacy or etiology of delirium.

- Delirium increase risk of fall.
- Additional fall precautions & consult

- Delirium significantly alters mentation.
- Identify and treat potential etiologies of delirium. Screen for depression

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Delirium Prevention

Prevention

- Up to 30-40% of delirium is preventable!
- Appropriate management of chronic conditions
- Early recognition of change in condition

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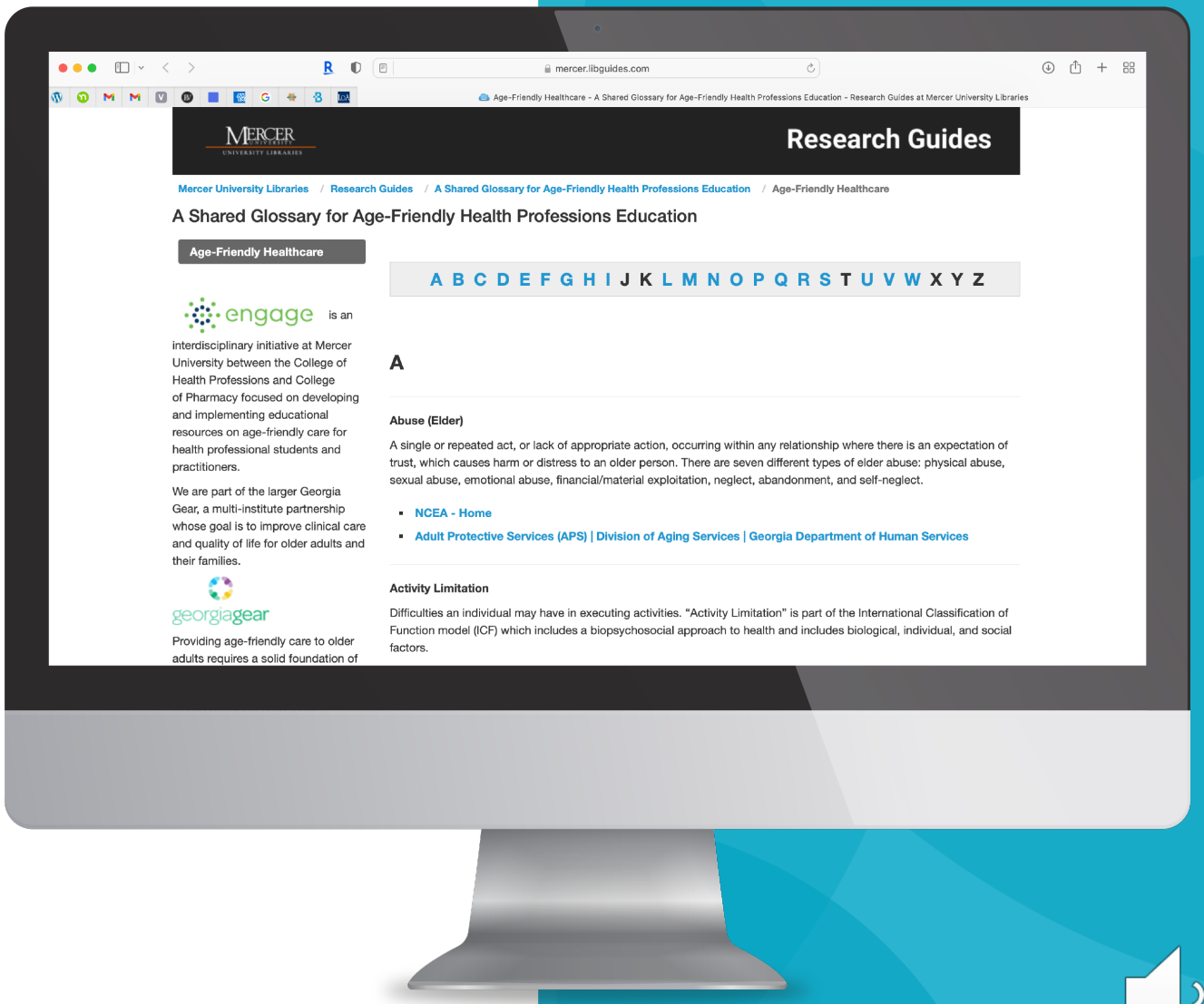
Know and Use the Shared Language…

GLOSSARY



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Delirium

Clinical Pearls

Evaluation for Delirium

- Delirium is an ACUTE change in condition- speak to a caregiver to get an understanding of the patient's baseline mental status.
- Listen to family members and caregivers. They are more familiar with the patient's baseline and will frequently notice a change in condition first. The sooner a change in condition can be noted, the sooner a work-up can begin, treatment can begin and potentially avoid decompensation.
- Take a thorough history and perform a good physical exam- these will frequently point a provider in the direction of possible etiology so that treatment can be initiated.

Managing Delirium

- Begin treatment of underlying problem as soon as possible while concurrently providing supportive care.

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About Engage

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ENGAGING FOR BETTER HEALTH

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