



The Dementia Leadership Course
Development. Knowledge. Practice. Networking.

Recognizing the Whole Person

Ben Inventor, PhD, APN/CNP

Rush University

312-563-7525

Ben_Inventor@rush.edu

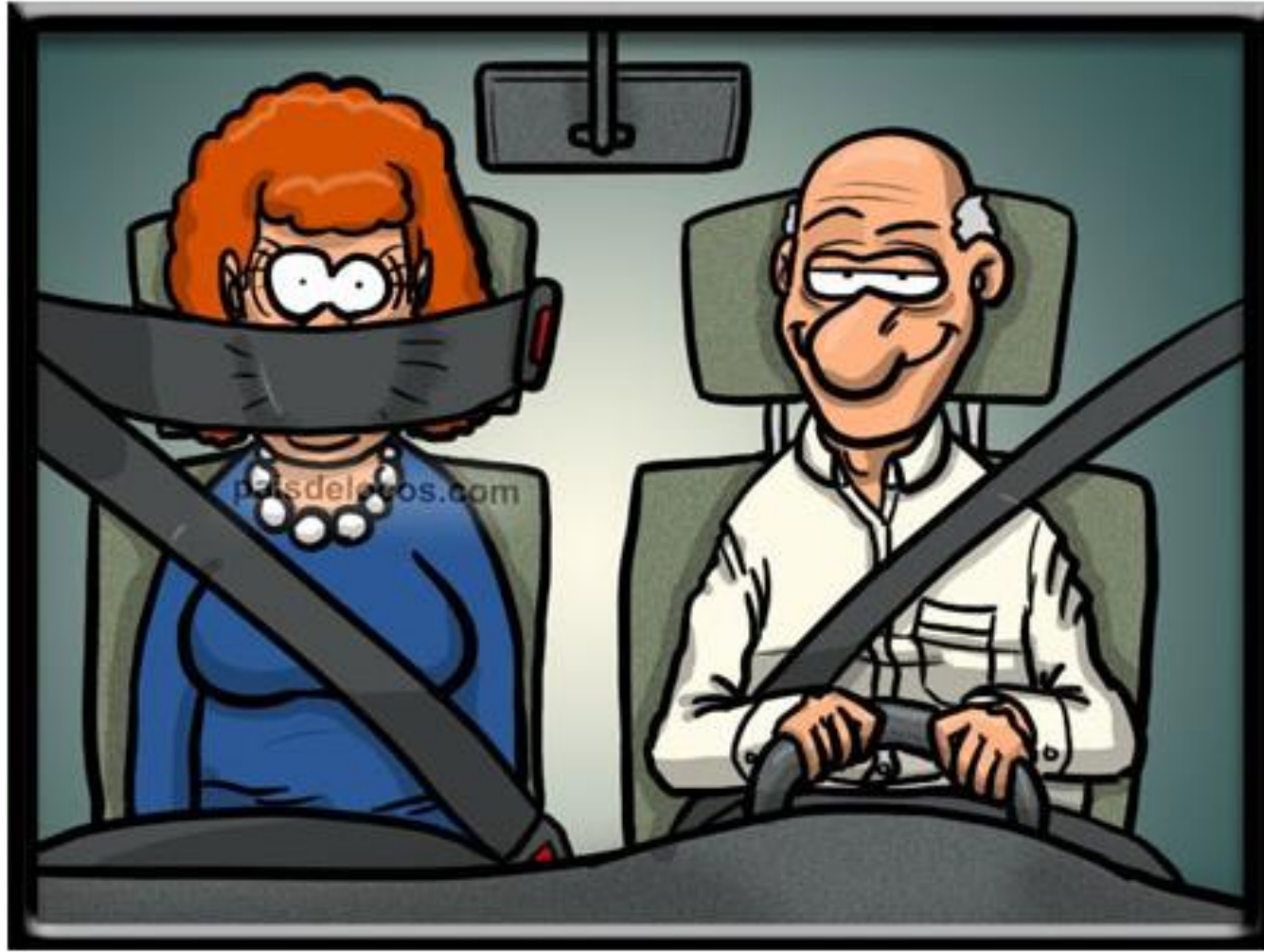


**Rush
Alzheimer's
Disease
Center**



Objectives:*

- discuss clinical assessment of persons with dementia
- interpret common yet significant assessment findings
- formulate practical approaches for common findings



Barriers to Assessment

- Person-related
 - Perceptual deficits
 - Cognitive deficits
 - Aggressive behavior
 - Variability and frequency of behavioral disturbances
- Staff-related
 - Inadequate training in assessment and documentation
 - Heavy workload
 - Variable acceptance of severity of problem
 - Stress and burnout
 - Negative personal reactions

- History from patient*
- History from informant/records
- Physical examination
- Cognitive examination

History from Patient

- Autobiographical report
 - History may be difficult to obtain
- Education, work, interests
- Past medical and psychiatric history
- Medications
- Alcohol consumption
- Family history of dementia

- Cannot be over emphasized
- Effect of cognitive impairment
- Insight on current problems
 - More concerned: organic causes
 - Less concerned: “well” patients
 - Self-repetition/questioning: AD
 - Tactless remarks, loss of empathy: FTD
 - Sleep disturbances: LBD

Physical Examination

- Routine physical examination may be normal
- Suggestive findings:
 - Parkinsonian features: LBD
 - Apraxic gait: Vascular or mixed
 - “head turn sign”: Organic amnesia
 - Hallucinations: LBD

- Attention and orientation
 - Both: Normal cognitive function
 - Attention: Delirium
 - Assessment
 - Orientation
 - Attention
 - World backwards
 - Months of year in reverse
 - Digit span test

Cognitive Examination

- Memory
 - Recall
 - Medical history, appointments, important news, things not linked to life events
- Language
 - Word finding difficulty (anomia)
 - Comprehension

Cognitive Examination

- Visuospatial impairment
 - Visual neglect
 - Missing chair, parking problems, minor accidents
- Apraxia
 - Inability to execute motor responses
 - Stir a cup of coffee
- Executive function
 - Interpret proverbs
 - Draw a clock
- Decisional capacity and competence*

- MMSE
 - Most common, copyright issues, not sensitive to non-AD and MCI
- BIMS
 - Not used to diagnose dementia but could demonstrate deterioration over time
 - Ask for more comprehensive evaluation
- AD8, Mini-Cog, SLUMS, MoCA

The AD8: The Washington University Dementia Screening Test

("Eight-item Interview to Differentiate Aging and Dementia")

Administration

The questions are given to the respondent on a clipboard for self-administration or can be read aloud to the respondent either in person or over the phone. It is preferable to administer the AD8 to an informant, if available. If an informant is not available, the AD8 may be administered to the patient.

When administered to an informant, specifically ask the respondent to rate change in the patient.

When administered to the patient, specifically ask the patient to rate changes in his/her ability for each of the items, *without* attributing causality.

If read aloud to the respondent, it is important for the clinician to carefully read the phrase as worded and give emphasis to note changes due to cognitive problems (not physical problems).

There should be a one second delay between individual items.

No timeframe for change is required.

Scoring

The final score is a sum of the number items marked "Yes, A change".

Interpretation of Results

0-1: Normal cognition:

2 or greater: Impairment in cognition

Remember, "Yes, a change" indicates that there has been a change in the last several years caused by cognitive (thinking and memory) problems.	YES, A change	NO, No change	N/A, Don't know
1. Problems with judgment (e.g., problems making decisions, bad financial decisions, problems with thinking)			
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., computer, microwave, remote control)			
5. Forgets correct month or year			
6. Trouble handling complicated financial affairs (e.g., balancing checkbook, income taxes, paying bills)			
7. Trouble remembering appointments			
8. Daily problems with thinking and/or memory			
TOTAL AD8 SCORE			

- Mini-cog
 - Repeat 3 things
 - Clock drawing test
 - Recall 3 things
 - Result: 0-2 = positive screen for dementia
 - <https://hign.org/consultgeri/try-this-series/mental-status-assessment-older-adults-mini-cog>

Maximum

score

Orientation

- 5 What is the (year), (season) (date) (day) (month)?
 5 Where are we (city) (state) (county) (hospital) (floor)?

Registration

- 3 Name three objects: one second to say each. Ask the patient for all three after you have said them. Give one point for each correct answer. Repeat them until all three are learned. Count trials and record number.

Attention and Calculation

- 5 Serial sevens backwards from 100 (stop after five answers). Alternatively, spell WORLD backward.

Recall

- 3 Ask for the three objects repeated above. Give one point for each correct answer.

Language and Praxis

- 2 Show a pencil and watch, and ask subject to name them both.
 1 Ask the patient to repeat the following: "No ifs, ands, or buts."
 3 (Three-stage command): "Take this paper in your right hand, fold it in half, and put it on the floor."
 1 "Read and obey the following: Close your eyes."
 1 "Write a sentence."
 1 "Copy this design (interlocking hexagons)



= Total/30

Ref: Folstein MR et al. J Psychiatr Res. 1975;12:189-98.**(1) ACUTE ONSET AND FLUCTUATING COURSE**

Is there evidence of an acute change in mental status from the patient's baseline? Did this behavior fluctuate during the past day, that is, tend to come and go or increase and decrease in severity?

(2) INATTENTION

Does the patient have difficulty focusing attention, for example, being easily distractible, or having difficulty keeping track of what was being said?

(3) DISORGANIZED THINKING

Is the patient's speech 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)
 Lethargic (drowsy, easily aroused)
 Stupor (difficult to arouse)
 Coma (unarousable)

THE DIAGNOSIS OF DELIRIUM REQUIRES A PRESENT/ABNORMAL RATING FOR CRITERIA:

(1) AND (2) AND EITHER (3 OR 4)

Ref: Inouye SK, et al. Ann Intern Med. 1990;113:941-8

VAMC SLUMS Examination

Questions about this assessment tool? E-mail aging@slu.edu.

Name _____ Age _____

Is patient alert? _____ Level of education _____


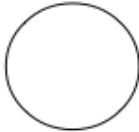
/1
/1
/1

/3
/3
/5

/2

/4
/2

/8

- 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.
1 How much did you spend?
2 How much do you have left?
6. Please name as many animals as you can in one minute.
1 0-4 animals **1** 5-9 animals **2** 10-14 animals **3** 15+ animals
7. What were the five objects I asked you to remember? 1 point for each one correct.
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.
1 87 **1** 649 **1** 8537
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
- 1** 10. Please place an X in the triangle.  
- 1** Which of the above figures is largest?
11. 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.
- 2** What was the female's name? **2** What work did she do?
2 When did she go back to work? **2** What state did she live in?

TOTAL SCORE _____



SAINT LOUIS
UNIVERSITY



SCORING

High School Education		Less than High School Education
27-30	Normal	25-30
21-26	MNCD*	20-24
1-20	Dementia	1-19

* Mild Neurocognitive Disorder

Age-friendly Health Systems

- New initiative from Institute for Healthcare Improvement (IHI) and The John A. Hartford Foundation
- Aims: Create a healthcare system where every older adult, everyday:
 - Gets the best care possible
 - Experiences no healthcare-related harms
 - Is satisfied with the healthcare
 - Realizes optimal value
- <https://highn.org/consultgeri/try-this-series/age-friendly-health-systems-4ms>

The Four Ms

- What **Matters**: Knowing and acting on each patient's specific health goals and care preferences
- **Medication**: Optimizing medication use to reduce harm and burden, focused on medications affecting mobility, mentation, and what matters
- **Mentation**: Identifying and managing depression, dementia and delirium across care settings
- **Mobility**: Maintaining mobility and function and preventing complications of immobility

Four Ms: Evidence

- What Matters:
 - Asking what matters and developing an integrated systems to address it lowers inpatient utilization (54%), ICU stays (80%), while increasing hospice use (47.2%) and patient satisfaction
- Medications
 - Older adults suffering an adverse drug event have higher rates of morbidity, hospital admission and costs (Field 2005)
 - 1500 hospitals reduced 15,611 adverse drug events saving \$78m across 34 states

Four Ms: Evidence

- Mentation:
 - Depression in ambulatory care doubles cost of care across the board
 - 16:1 ROI on delirium detection and treatment programs
- Mobility:
 - Older adults who sustain a serious fall-related injury required an additional \$13,316 in hospital operating cost and had an increased LOS of 6.3 days compared to controls
 - 30+% reduction in direct, indirect, and total hospital costs among patients who receive care to improve mobility

Four Ms: Interventions

	High-level Interventions	Implementation Actions
What Matters	1 Know what matters: health outcome goals and care preferences for current and future care, including end of life	<p>Developed with the health systems teams.</p> <p>Teams can select from our ideas or identify their own ideas for reliable implementation.</p> <p>We will learn from one another and share generously.</p>
	2 Act on what matters for current and future care, including end of life	
Mobility	3 Implement an individualized mobility plan	
	4 Create an environment that enables mobility	
Medications	5 Implement standard process for age-friendly medication reconciliation	
	6 De-prescribe and adjust doses to be age-friendly	
Mentation	7 Ensure adequate nutrition & hydration, sleep and comfort	
	8 Engage and orient to maximize independence and dignity	
	9 Identify, treat, and manage dementia, delirium, and depression	

What Matters

- Importance of historical report
 - Interests, work
 - Selection of interventions
- Goals of care, preferences
 - Routine care, medications, meals
 - End-of-life care*

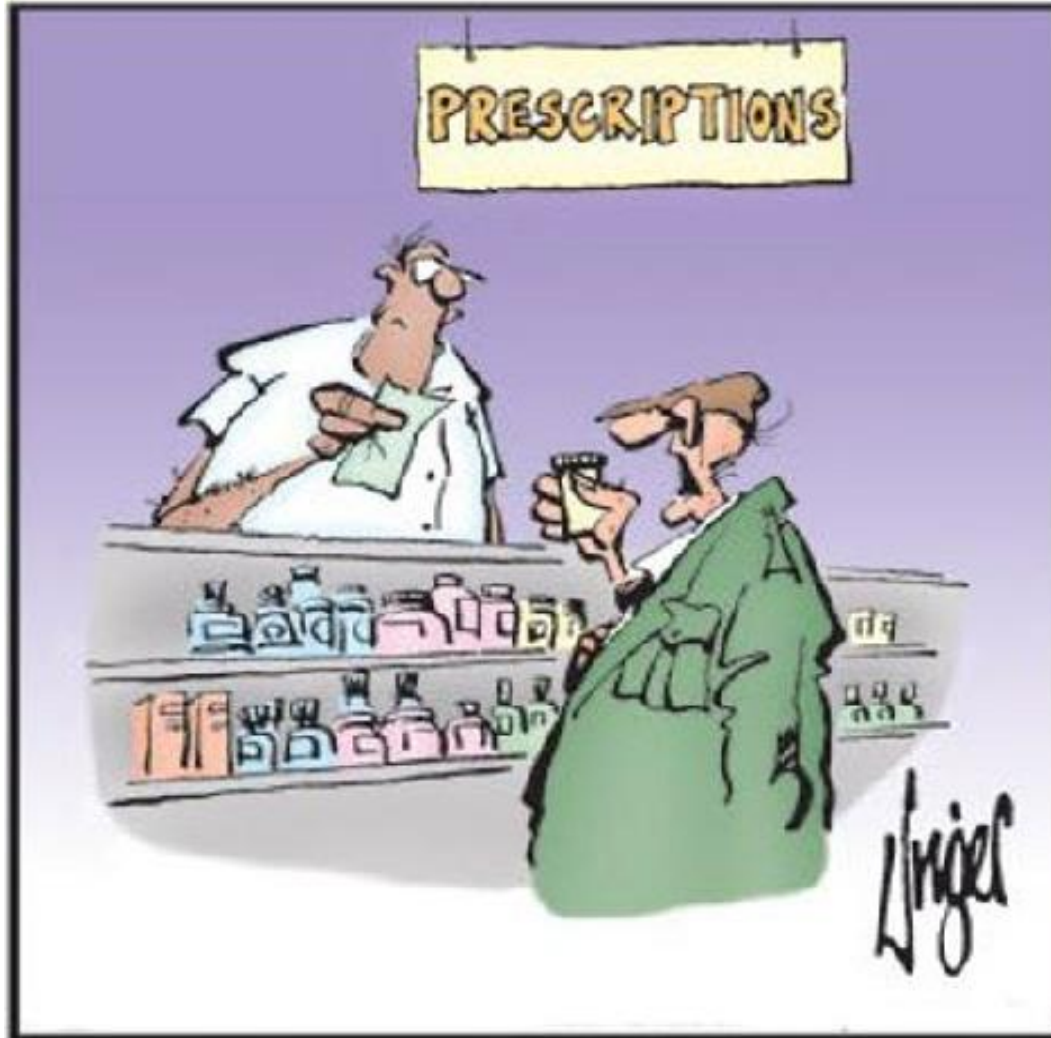
- Support the caregivers
 - Stressors: personal self-care, finances, inadequate caregiving skill
 - Staff/Caregiver development
 - Education
 - Develop skills to appropriately and effectively deal with patient issues especially behavioral problems
 - Support
 - Reduce burnout

Caregiver Chronic Grief Intervention

- Online group intervention
- Family caregivers of persons with dementia placed in LTC facilities
- <https://www.rush.edu/clinical-trials/chronic-grief-management-intervention-study>



- Individualized mobility plan
 - Prevention of sequelae: falls, pressure ulcers, behavioral problems
 - Interdisciplinary team effort
 - Designated responsibility/champion
 - Assessment of patient ability
 - Lift legs, lying to sitting, sitting to standing, stepping forward; independent or with assistance
 - Right equipment
 - Making it fun
 - Heels for meals, walk outside of room twice daily
 - <https://www.healthleadersmedia.com/nursing/5-ways-nurses-can-improve-patient-mobility>



“Are there any side effects to these pills apart from bankruptcy?”

Medications

- Increase risk of adverse effects
 - Altered mental status, dizziness, lightheadedness, fluid and electrolyte imbalance
- Common medications:
 - *Anything new*
 - Psychoactive (hypnotics, sedatives, opioid analgesics, antipsychotics, antidepressants and anticonvulsants)
 - Antacids
 - Cardiac
 - Corticosteroids
 - NSAIDs
 - Antibiotics

Medications

- Medication reconciliation
 - Transition between settings
- Medication optimization program
 - Medications that can be reduced, discontinued or changed
 - Gradual dose reduction
 - Simplifying medication administration
 - <https://www.pharmacy.umaryland.edu/centers/lamy/optimizing-medication-management-during-covid19-pandemic/>
- Choosing wisely
 - <https://paltc.org/choosing-wisely>

Mentation

- Nutrition, hydration, sleep, and comfort
 - Preferences
- Engagement and orientation
 - Matched with interests, cognitive function and physical ability
 - Activity kits, structured activities, social contact
 - Challenges during pandemic
- Manage dementia, delirium, depression

The 3 D's

	Dementia	Depression	Delirium
Diagnostic Tool	SLUMS, MoCA	PHQ-9, GDS	CAM
Onset	Gradual (mths to yrs)	Usually gradual	Acute (hrs to days)
Course	Progressive Irreversible	Chronic or abrupt with psychosocial stressors	Abrupt Fluctuating Reversible
LOC	Alert Attentive	Alert	Impaired attention/focus
Memory	Impaired initially	Intact, poor effort on memory tests	S/T memory loss
Orientation	Chronic confusion	Intact	Acute confusion
Language	Word finding difficulties	Normal, may not initiate conversation	Often incoherent

- ACUTE change
- Confusion Assessment Method (CAM)
 - Enables non-psychiatrically trained clinicians to identify delirium quickly
 - Short version
 - 1: Acute Onset or Fluctuating Course
 - 2: Inattention
 - 3: Disorganized thinking
 - 4: Altered Level of Consciousness
 - Diagnosis: Presence of 1, 2, and either 3 or 4
 - <https://hign.org/consultgeri/try-this-series/confusion-assessment-method-cam>

- ***MEDS:***
 - *Medical factors,*
 - *Environmental factors,*
 - *Drug and alcohol dependence and*
 - *Surgical Factors*

Delirium: Possible Causes

- **Medical Factors: DETECTIONS**
 - **Drugs**
 - **Elimination Issues: urinary retention and fecal impaction**
 - **Trauma, **Pain**: fracture**
 - **Endocrine/Metabolic: hypoxia, **hypo/hyperglycemia**, **hypo/hyperthyroidism****
 - **Cerebrovascular/cardiovascular: pre-existing cognitive impairment, epilepsy**
 - **Tumor**
 - **Infections: **UTI****
 - **Organ failure**
 - **Not otherwise specified: **dehydration**, heatstroke**
 - **Sleep deprivation**

Delirium: Possible Causes

- Pain Assessment
 - <https://hign.org/consultgeri/try-this-series/assessing-pain-older-adults-dementia>
- **Environmental Factors**
 - Hearing and visual deficits, immobility
- **Drug and Alcohol Dependence**
- **Surgical Factors**

Delirium: Management

- Assess for pre-facility cognitive function
 - Try This: Recognition of Dementia in Hospitalized Older Adults
- Assess and identify delirium
 - Try This: CAM
- Assess for possible risk factors and causes and correct what can be corrected
- First-line investigation
 - CBC, CMP, Urinalysis and C/S, TSH, EKG, Chest x-ray

Delirium: Management

- Non-pharmacologic treatments (based on *HELP*)
 - Promote cognitive orientation/stimulation
 - Reorientation vs validation therapy*
 - Therapeutic activities
 - Hearing and vision adaptations
 - Early mobilization
 - Decrease psychoactive medication use
 - Promote food and fluid intake
 - Promote sleep
- Staff education – it matters who delivers the care!
 - Empowerment

Delirium: Management

- Pharmacological Treatment
 - No FDA-approved drug for treatment of delirium
 - Neuroleptics
 - Increased risk in cardiovascular and infectious events, EPS
 - Benzodiazepines
 - For delirium associated with seizures/ETOH withdrawal
 - Increases risk for fall
 - Donepezil
 - Post-operatively, Lewy-body and Alcoholic Dementia

Dementia

- GRADUAL change
- As much as 90% of people with dementia experience agitation at some point during the course of the illness
- Aggressive behaviors (e.g. hitting, biting, kicking, spitting, grabbing, hurting self or others, physical sexual advances) often correlate to male patients, severe cognitive impairment, premorbid aggressive personality, psychosis and perception that others are intruding one's space

Dementia

- Non-aggressive behaviors (e.g. hiding objects, hoarding, pacing, wandering, handling things inappropriately, disrobing, repetitious movements) tend to have fewer medical conditions and may have been more active throughout their lives
- Verbal agitation (e.g. screaming, cursing, verbal sexual advances, unwarranted requests for help, negativism) often correlates to female, poor health, pain, depression

Dementia: Management

- Assess and record patterns of behavior
- Impact of Life history knowledge
- ABCs of agitation management
 - A: Antecedents or triggers (internal or external)
 - B: Behavior
 - C: Consequences
- Most important question to ask: *Is the behavior truly disruptive, unsafe, or interfering with the provision of care, or simply repetitive and annoying?*
- Inpatient psychiatric evaluation
 - Suicidal, physically aggressive, notable functional decline

Dementia: Management

- Non-pharmacologic interventions
 - Should be utilized FIRST before medications
- Serial Trial Intervention
 - Use of non-pharmacologic interventions and trial of analgesics prior to using psychotropic drugs
- Pharmacologic Interventions
 - Acetylcholinesterase Inhibitors
 - Aricept, Exelon, Razadyne
 - improvement may not be seen until weeks or months
 - GI side effects and sleep disturbances
 - Memantine
 - Periodic assessment of impact and side effects

- Pharmacologic Interventions
 - Antipsychotics
 - Antipsychotics are most commonly prescribed psychotropic agents to manage aggression, agitation and psychosis although they have not been approved by FDA for these indications
 - Black Box warning: Increased risk for cardiovascular, infectious events
 - Weighing potential benefits vs potential risks
 - akathisia
 - **Short-term use for severely distressing symptoms**
 - Anger, aggression and paranoid ideas
 - Does not appear to improve QOL, functioning, care needs
 - If possible, adjust timing of meds to be given prior to pt's “worst times” before increasing dose

- Antipsychotics
 - Typical (Haldol, Prolixin)
 - Higher risk for EPS
 - Available decanoate formulation
 - Atypical
 - Risperdal
 - Paranoid delusions
 - Had liquid form
 - Long acting form (IM) can last up to 8 weeks after last dose
 - Higher rate of parkinsonism at 2mg/day

- Zyprexa
 - Has Zydis form; Higher side effects seen at 15mg/day
- Seroquel
 - Sedating; appetite stimulation; risk for glaucoma
- Geodon
 - Less sedating; best given with food; risk for prolonged QT interval
- Abilify
 - Long half-life; takes longer to build therapeutic level; less sedating; adjunct for depression

– Antidepressants

- SSRI (evidence suggesting serotonergic deficits in AD contribute to aggression, depression, psychosis)
 - Citalopram: with similar rates of improvement in treating agitation and psychosis but with lesser adverse effects than Risperidone; better than Perphenazine; sedating
 - Sertraline: with favorable response especially on women and low aggression
 - Lexapro: more tolerable
 - Prozac: longer half-life; has liquid form
- Trazodone comparable to Haloperidol in treating agitation but is well tolerated

- Antiepileptics (fair evidence base)
 - Valproic acid – has varying results and with narrow therapeutic window for treatment
 - Carbamazepine - may reduce sexual disinhibition and agitation that is refractory to treatment with other medications
- Benzodiazepine (poor evidence base)
 - Alprazolam may be an acceptable alternative to low-dose Haloperidol in treatment of agitation
 - For ETOH and benzodiazepine withdrawal (common for patients who became agitated shortly after hospitalization)
 - Risk of adverse effects (ataxia, confusion, disinhibition) and dependence

- Analgesics (poor evidence base)
 - Use when pain is suspected as cause of agitation

- Hormonal treatment (poor evidence base)
 - Anti-androgen agents may reduce sexual disinhibition and agitation in men
 - Melatonin may reduce nocturnal agitation and insomnia

Depression

- Affects nearly 5 million older adults and nearly half of people in nursing homes*
- GRADUAL change
- Tools
 - PHQ-9
 - Geriatric Depression Scale: Short Form
 - May be used in physically ill and patients with mild to moderate dementia
 - <https://hign.org/consultgeri/try-this-series/geriatric-depression-scale-gds>
 - Depression in patients with AD
 - Difficult to diagnose because of the tendency to report more somatic and cognitive symptoms than affective symptoms



"They never phone, they never visit, they never text message..."

Depression

- Depression in patients with AD
 - Many show irritability, agitation, sleep disturbance and social withdrawal without subjective complaints of feeling depressed
 - Can present as “lack of feelings or emotions”, medically unexplained somatic complaints or anxiety
 - Feeling of hopelessness, not sadness, is strongly associated with suicidal ideation
 - Decreased positive affect or pleasure in response to social contact and usual activities

- Can manifest as pseudodementia
 - Easily misdiagnosed; presents as early dementing process such as depressed mood or agitation, psychomotor retardation, impaired memory, impaired concentration and attention
 - Slow and monotonous speech, frequent “I don’t know”, poor memory (especially for those requiring mental effort), attention and calculation (or unwillingness to perform), has ability to learn
 - Rapid onset, short duration of symptoms, fluctuating mood, highlights disabilities, fluctuating cognitive impairment

- Non-pharmacological treatment
 - Favored first as first-line treatment although high-quality research is limited
 - Increase socialization, physical activity, cognitive stimulation



Depression: Management

- **SSRI**
 - Watch for sleep disturbance, GI side effects, anxiety, weight loss
- **SNRI**
 - Cymbalta has indication for diabetic neuropathy
 - Effexor: adjust for decreased renal function
- **Atypical antidepressants**
 - Wellbutrin – indication for smoking cessation; caution with seizure disorder
 - Remeron – improves sleep and appetite
- **TCA**
 - Adverse effects limit its use: postural hypotension, arrhythmia

Four Ms: Interventions

	High-level Interventions	Implementation Actions
What Matters	1 Know what matters: health outcome goals and care preferences for current and future care, including end of life	<p>Developed with the health systems teams.</p> <p>Teams can select from our ideas or identify their own ideas for reliable implementation.</p> <p>We will learn from one another and share generously.</p>
	2 Act on what matters for current and future care, including end of life	
Mobility	3 Implement an individualized mobility plan	
	4 Create an environment that enables mobility	
Medications	5 Implement standard process for age-friendly medication reconciliation	
	6 De-prescribe and adjust doses to be age-friendly	
Mentation	7 Ensure adequate nutrition & hydration, sleep and comfort	
	8 Engage and orient to maximize independence and dignity	
	9 Identify, treat, and manage dementia, delirium, and depression	

- Questions



- Email: Ben_Inventor@rush.edu



The Dementia Leadership Course

Development. Knowledge. Practice. Networking.

Thank you for your participation and leadership with those living with dementia.

Join the Dementia Leadership Network at
www.DementiaLeaders.net

