



*Age is opportunity no less,
Than youth itself, though in another dress,
And as the evening twilight fades away,
The sky is filled with stars, invisible by day.*

~Henry Wadsworth Longfellow, *Morituri Salutamus*

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Medication: (Yellow)

Principles of Prescribing for the Older Adult • Medication Use in the Geriatric Population
Gradual Dose Reduction • Is the Symptom Due to Aging or Drugs?

Function: (Blue)

Capacity Assessment: Medical Decision Making • Capacity Assessment: Guardianship
Functional Assessment • Screening for Risk of Falls • Tinetti Gait & Balance
Environmental Considerations • Incontinence Algorithm • Chronic Urinary Incontinence

Depression: (Goldenrod)

Geriatric Depression Screen • CAGE (Alcohol Assessment)
Caregiver Burnout Assessment • Targeting Antidepressants

Delirium: (Green)

Confusion Assessment Method (CAM) • Origin of Behavioral Symptoms

Dementia: (Pink)

Compare and Contrast Types of Dementia • Compare and Contrast Types of Dementia, cont.
Cognitive Evaluation • SLUMS • Symptomatic Approach to Behaviors in Dementia

Principles of Prescribing for the Older Population

1. Consider nonpharmacologic approaches
2. Consider the risk v benefit before prescribing any drug
3. Set specific goals for assessing therapy outcomes
4. Discontinue unnecessary or ineffective therapy
5. Consider adverse drug events for any new symptom
6. Substitute problem drugs with safer alternatives
7. When initiating new agents, start with lower doses, titrate slowly, increase as indicated
8. Include pharmacists on the interdisciplinary team

“Doctors pour medicines about which they know little, for diseases about which they know less, into human beings about whom they know nothing.” Voltaire

Selected Medications to Avoid in the Elderly:

1. Barbiturates
 2. Long Acting Benzodiazepines
 3. Hyoscyamine
 4. Meprobamate
 5. Meperidine (oral)
 6. Diphenhydramine, hydroxyzine (high anticholinergic effect)
 7. Oxybutinin
 8. Doxepin, amitriptyline (high anticholinergic effect)
 9. Cyclobenzaprine, carisoprodol
- Fick DM et al; Arch Intern Med. 2003**

Medication Use in the Geriatric Population

Problem	Medications and Non Pharmacologic Interventions to USE or AVOID
<p><u>Sleep</u></p>	<p>USE: Melatonin, Trazodone AVOID: benzodiazepines, doxepin (Sinequan), diphenhydramine (Benadryl). DO: Create calm environment, decrease noise & light, provide warm drink and massage</p>
<p><u>Behavior</u></p> <p>Aggression, combativeness, hallucinations/delusions, severe agitation, delirium</p>	<p>USE: -Neuroleptics Haloperidol (Hadol) 0.125-0.5 mg IV/IM/PO Q 30 min. x 2, then 1 mg Q 2 hrs until Sx under control. <i>Not to exceed 4 mg/24 hrs. Preferred treatment for short-term use (1-3 days only).</i> -Atypical Antipsychotics:</p> <ul style="list-style-type: none"> • Quetiapine (Seroquel) 12.5- 25 mg PO QHS-BID 1st line for Parkinson's or Lewy Body dementia, less risk of "black box" side effects • Risperidone .25-.5 BID (Risperdal), aripiprazole 2-5 mg daily (Abilify): Less sedating than quetiapine so better if need a daytime drug <p>-Mood Stabilizers: Valproic acid 125- 250 mg BID (Depakote) AVOID: Long term use of antipsychotics DO: Redirect, have family near patient, ambulate, address pain, D/C or secure lines, provide quiet environment, eval for UTI, constipation</p>
<p><u>Memory</u></p> <p>Memory impairment w/ anxiety, restlessness, wandering, apathy, hallucinations (LBD)</p>	<p>USE: Donepezil, memantine Analgesics, if suspicion or history of pain SSRI's (See Card: "Targeting Antidepressants") AVOID: Long-acting Benzodiazepines DO: Encourage exercise, exposure to daylight and fresh air, friends and family involvement, Eval for UTI, constipation</p>
<p><u>Depression</u></p>	<p>DO: See Card: "Targeting Antidepressants"</p>

For each problem: USE (Medication) • AVOID: (Medication) • DO: (Non-pharmacological intervention)

Gradual Dose Reduction (GDR) of Psychoactive Medications

Potential Positive Outcomes of GDR

By encouraging the use of the lowest possible dosage and identifying when psychoactive medications are no longer needed studies have found that a well-coordinated team approach to GDR can DECREASE:

- Psychiatric discharges to hospital
- Pressure ulcers
- Use of psychoactive medications (antipsychotic, sedative/hypnotic and anti-anxiety medications)
- Decline in ADLs
- Untreated depression
- Fractures, high risk falls and falls resulting in hospitalization

(Coggins. JAMDA 2010(11)3):B9)

Promoting GDR in Nursing Facilities

In order for a nursing facility to have an effective GDR program all staff must be willing to collaborate to reduce and possibly discontinue the use of psychoactive medications. GDR can be hard work, but the positive outcomes will be well worth the effort.

Gradual Dose Reduction (GDR) of Psychoactive Medications

Rationale

Psychoactive medications have limited evidence of effectiveness and are associated with potentially serious side effects including tardive dyskinesia, increased risk of stroke and mortality and metabolic abnormalities such as elevated blood glucose and lipids. GDR encourages facilities to use the lowest effective dosage and to discontinue the use of these potentially dangerous medicines when they are no longer needed.

Federal Requirements

Federal guidelines mandate GDR be attempted (unless clinically contraindicated) and documented in nursing facilities as follows:

- Antipsychotics
 - In two separate quarters during the first year, then annually
- Sedative/Hypnotics
 - At least quarterly
- Other psychopharmacologic drugs (such as anti-anxiety medications)
 - In two separate quarters during the first year, then annually

Is the Symptom due to Aging or Drugs?

Be on the Lookout for the Side Effects of Medications

- Medications are the single most important health care technology in preventing illness, disability, and death in the geriatric population.

BUT,

- Any new symptom in an elderly patient should be considered a drug side effect unless proven otherwise.

“Those who care for the elderly must not be too quick to attribute symptoms – such as confusion, forgetfulness, gait instability, Parkinsonian signs, incontinence, or fatigue – to the onset of new illness or to aging itself, without first assessing whether they may in fact be adverse medication effects.

-Gurwitz J, Monane M, Monane S et al., Long-term care quality letter. Brown University, 1995

Is the Symptom Due to Aging or Drugs?

Avoid the negative stereotype of aging – each of the following could be side effects of medications:

- Confusion
- Weakness
- Constipation
- Dry mouth
- Abnormal heart rhythm
- Sedation
- Tremor
- Hair loss
- Urinary incontinence
- Negative behaviors
- Sensory deficits
- Taste disturbance
- Fainting
- Urinary retention

Any new symptom in an elderly patient should be considered a drug effect unless proven otherwise.

Capacity Assessment: Medical Decision Making

1. Have patient describe his/her medical issue(s).
2. Have patient paraphrase what the recommended treatment is as well as the other options.
3. Have patient explain what the treatment involves.
4. Have patient express what he/she wants to do.
5. Have patient explain the reasons behind his/her decision.
6. Have patient explain the risks and benefits of his/her decision.

Capacity Assessment: Placement

1. Obtain FUNCTIONAL ASSESSEMENT (OT and PT)
2. Review pt's functional history
3. Have pt express specific concerns of his/her providers
4. Have pt express whether he/she agrees with the concerns (insight)
5. Have pt state what he/she wants to do
6. Have pt explain risks and benefits of his/her decision
7. Have pt explain reasons behind his/her decision

Capacity Assessment: Guardianship

1. Obtain collateral hx from family and primary care provider
2. Have pt explain his/her medical issues and medications
3. Have pt explain his/her finances
4. Have pt explain a routine day including how he/she obtains meals (ADLS/IADLS), takes his/her medications, etc
5. Ask pt judgment questions -
 - “What would you do if you smelled smoke?”
 - “What would you do if you were having chest pain?”
 - “What is the number for emergency?”
6. SLUMS
7. Assess pt’s insight into functional deficits

Capacity Assessment: Will

1. Assess if pt knows he/she is making a will
2. Assess why he/she is choosing to make the will at this point in time
3. Have pt explain the nature and extent of his/her property
4. Have pt explain who is important to him/her (family and/or friends)
5. Have pt explain the effects/consequences of the manner in which his/her property will be disposed

Functional Assessment

(Adapted from: Lachs et al, Annals of Int Med 1990;112:699-706)

Target Area	Assessment	Abnormal Result/Intervention
Measured by support staff—Reviewed by PCP		
Nutrition	Review measured height and weight (calculate Body Mass Index)	BMI < 20 or 10 lb wt loss in 6months: Evaluate for medical illness, ADL/IADL problems
Questionnaire or Review of Symptoms		
Vision	Do you have any difficulty with reading, watching TV, reading road signs?	Refer to eye professional
Depression	Do you often feel sad or depressed?	Geriatric Depression Screen (<i>in Card Set</i>)
ADLs	Can you get out of bed yourself? Can you dress yourself?	If abnormal, determine reasons, corroborate with caregiver, evaluate other ADLs, IADLs Interventions—home health, MSW, etc.
IADLs	Can you make your own meals? Can you do your own shopping?	
Home environment	Do you have trouble with stairs inside or outside your home?	If yes, home safety evaluation
Incontinence	Do you ever lose urine or get wet?	If yes, frequency, amount, reversible causes? (<i>In Card Set</i>)
Social Support	Who would be able to help you in case of an emergency	If unable to identify, MSW referral
Performance-based Assessment		
Hearing	Whispered question	Check for cerumen, refer Audiology
Upper Extremity	<i>Proximal</i> —"Touch the back of your head with both hands" <i>Distal</i> —"Pick up the pen"	Examine UE for pain, weakness, limited ROM, consider rehab referral
Lower Extremity	<i>Get-up-and-Go</i> —"Rise from chair, walk 10 feet, return, sit down"	Abnormal (>15 sec)—neurologic, musculoskeletal evaluations, PT for gait and balance evaluation

Screening for Risk of Falls

(Adapted from Tinetti ME, New Engl J Med 348;2003:42-49)

- 1. Ask all patients ≥ 75 y.o. about falls**, balance or gait problems in the past year
 - 0-1 falls in past year/no balance/gait problems—No intervention (recommend participation in an exercise program that includes balance/strength training)
 - 2 or more falls or gait/balance problems—Falls assessment

- 2. Timed Up and Go Test:** Ask the patient to rise from a chair (without using their hands), walk ten feet, turn, walk back to the chair, and sit down. He/she should be able to perform this in 15 seconds or less, if not, the test is abnormal;
Longer than 15 seconds suggests increased risk for falls

Falls Assessment

Assessment and Risk Factor

Management

Medication use

High-risk medications (benzodiazepines, sleeping medications, neuroleptics, antidepressants, anticonvulsants, class IA antiarrhythmics), *Four or more medications*

Review and reduce medications

Vision

Acuity (Jaeger card reading vision $> 20/40$ is abnormal)
 Decreased depth perception, Decreased contrast sensitivity
 Cataracts

Ample lighting without glare; avoid multifocal glasses when walking, keep a light on at night for visibility going to bathroom, refer to eye specialist

Orthostatic Hypotension

(measure after 5 mins supine; immediately after standing and 2 mins after standing), ≥ 20 mmHg (or 20%) drop systolic BP

Dx/Tx underlying cause; medication review, adequate hydration, elevate head of bed, rise slowly, support stockings

Balance & gait

Perform targeted neurologic examination, Perform targeted musculoskeletal examination, Medication review
 Environmental evaluation (home safety evaluation), Tai Chi

Dx/Tx underlying cause, Reduce medications, Increase proprioceptive input (assistive device, footwear with low heel, thin sole), Refer to PT for gait/balance training, strengthening, ROM, assistive device

TINETTI BALANCE ASSESSMENT SCALE

BALANCE SECTION: Patient is seated in hard, armless chair.

Sitting balance	Leans or slides in chair	=0
	Steady, safe	=1
Rises from chair	Unable to without help	=0
	Able, uses arms to help	=1
	Able without use of arms	=2
Attempts to rise	Unable to without help	=0
	Able, requires > 1 attempt	=1
	Able to rise, 1 attempt	=2
Immediate standing Balance (first 5 seconds)	Unsteady (staggers, moves feet, trunk sway)	=0
	Steady but uses walker or other support	=1
	Steady without walker or other support	=2
Standing balance	Unsteady	=0
	Steady but wide stance and uses support	=1
	Narrow stance without support	=2
Nudged	Begins to fall	=0
	Staggers, grabs, catches self	=1
	Steady	=2
Eyes closed	Unsteady	=0
	Steady	=1
Turning 360 degrees	Discontinuous steps	=0
	Continuous	=1
	Unsteady (grabs, staggers)	=0
	Steady	=1
Sitting down	Unsafe (misjudged distance, falls into chair)	=0
	Uses arms or not a smooth motion	=1
	Safe, smooth union	=2
Balance score		/16

TINETTI BALANCE ASSESSMENT SCALE

GAIT SECTION

Patient stands with therapist, walks across room (+/- aids), first at usual pace, then at rapid pace.

Indication of gait (immediately after told to "go")	Any hesitancy or multiple attempts	=0
	No hesitancy	=1
Stop length and height	Step to	=0
	Step through R	=1
	Step through L	=1
Foot clearance	Foot drop	=0
	L foot clears floor	=1
	R foot clears floor	=1
Step symmetry	Right and left step length not equal	=0
	Right and left step length appear equal	=1
Step continuity	Stopping or discontinuity between steps	=0
	Steps appear continuous	=1
Path	Marked deviation	=0
	Mild/moderate deviation or uses w. aid	=1
	Straight without w. aid	=2
Trunk	Marked sway or uses w. aid	=0
	No sway but flex, knees or back or uses arms for stability	=1
	No sway, flex., use of arms or w. aid	=2
Walking time	Heels apart	=0
	Heels almost touching while walking	=1
Gait score		/12
Balance score carried forward		/16
Total Score = Balance + Gait score		/28

Risk Indicators:

Tinetti Tool Score

≤ 18

19-23

≥ 24

Risk of Falls

High

Moderate

Low

Falls Assessment – Environmental Considerations

Assessment and Risk Factor – Home Safety	Management
<u>Stairs</u> Slippery surface on stairs; poor or no banisters; uneven steps	Add abrasive strips or paint to stair tread edges; install or repair banisters; replace stairs with uneven steps
<u>Walkways</u> Obstructed or hazardous walkways	Remove obstacles (including snow/ice, shrubs, weeds); repair broken, cracked sidewalks; install lighting (e.g., motion detectors, solar-powered lights)
<u>Tile or linoleum floors at entrances, in bathroom, in kitchen</u> Smooth floors that are slippery when wet	Use a secure, non-slip mat with double-sided tape to ensure mat is secure
<u>Bathtub/shower/toilet</u> Slipping or falling in the bathroom; no or poorly placed grab bars; using towel racks as grab bars; hygiene items hard to reach	Install grab bars; place non-slip mats in the shower/bathtub; install a shower seat; install a storage unit within the shower/bathtub; avoid using slippery bar soap and instead try liquid soap; install a raised toilet seat
<u>Kitchen</u> Items out of reach (too low, high, or far back)	Move commonly used items to shelves at waist height; install sliding shelves or “lazy susans”; if a boost is needed, use a sturdy step stool with a bracing bar (not a chair or box)
<u>Bedroom</u> Light switch and/or telephone not easily reached from bed; bed hard to get in and out of (too high); electric cords running across floor posing tripping hazard; bathroom does not adjoin bedroom	Place a lamp next to bed or rearrange furniture so bed is next to a light switch; place cordless or cell phone next to bed; reduce secure cords with tape; lower bed height; purchase night lights and turn on before going to bed; place a portable commode near the bed to reduce trips to bathroom
<u>General</u> Clutter, laundry, electrical cords in traffic areas, hallways, staircases; loose throw rugs or carpets with frayed, curled edges; pets sleeping or pet toys on the floor; poorly lit areas	Pick up items on the floor; store laundry in hampers; secure cords with tape; secure rugs, carpets with non-slip pads, tape; encourage pets to sleep on a bed or blanket out of the way; install general, rather than area, lighting; install nightlights

Incontinence Algorithm

DIAPPERS: Precipitating & Aggravating Factors

D delirium
I infection
A atrophic vaginitis
P pharmaceuticals
P psychological
E excessive urination, edema
R restricted mobility
S stool impaction

History: stress, urge, overflow, functional
Focused Physical: rectal, pelvic, neurological, functional
Post-void Residual
UA & C&S

Indication for referral?

No

Reversible Causes?
"DIAPPERS"

Yes

Refer
GU
GYN

Continued incontinence

STRESS
kegels
PT
surgery

URGE PVR<100
Medications
Oxybutynin
Tolteridine
a-blockers for BPH
BEHAVIORAL
"DIAPPERS"

MIXED PVR 100-200
Medications
a-blockers for BPH
avoid anti-cholinergics
BEHAVIORAL
"DIAPPERS"

OVERFLOW PVR>200-300
Early referral
Intermittent cath
BEHAVIORAL
"DIAPPERS"

Chronic Urinary Incontinence (Adapted from Ouslander: *Urol* 36(supp):25, 1990)

Type	Diagnosis	Primary Treatment
Stress	Hx: Leaks urine when straining Dx: Have patient cough while standing w/ full bladder-leakage = stress incontinence	Pelvic floor (Kegel) exercises Biofeedback, behavioral training Alpha agonists Surgical bladder-neck suspension
Urge	Hx: Urgency to void frequently; appears to have smaller bladder capacity, bladder irritability w/ involuntary contractions Dx: Severe urge to void at relatively low bladder volumes (<250 cc) & low PVR = simple urge incontinence; If PVR>100 cc = mixed or complex incontinence	Identify and treat aggravating factors Bladder relaxants, a-blockers if BPH present Training procedures (e.g. biofeedback, behavioral) Scheduled toileting Address environmental and functional issues Surgical removal of irritating lesions
Overflow	Hx: Small voiding volumes or difficulty voiding, decreased force of stream Dx: PVR>100 cc = outlet obstruction or impaired contractility, PVR >200-300 cc = overflow Very rare in women	Identify and treat aggravating factors Surgical removal of obstruction Intermittent catheterization (if practical) Indwelling catheterization
Functional Iatrogenic	Hx: Cognitive impairment with associated incontinence, medications, and artificial barriers to the toilet Dx: Rule out other causes Ask: Is it possible for the patient to get to the toilet?	Identify and treat aggravating factors Behavioral therapies (e.g. scheduled toileting) Environmental manipulations Incontinence undergarments and pads External collection device Bladder relaxants (selected patients) Indwelling catheter (selected patients)
Refer	Recent GU or pelvic surgery, hematuria, recurrent infection, BPH, prostate nodule, cystocele, uterine prolapse, PVR>300 cc, lack of response to Rx	

Geriatric Depression Screen

Suggestive of depression if abnormal answers to 2 or more questions:

1. Are you basically satisfied with your life? (Abnl = No)
2. Do you often get bored? (Abnl = Yes)
3. Do you often feel helpless? (Abnl = Yes)
4. Do you prefer to stay at home rather than going out and doing new things?
(Abnl = Yes)
5. Do you feel pretty worthless the way you are now? (Abnl = Yes)

Sensitivity 0.97/ Specificity 0.85

Hoyle MT et al, JAGS, 1999; 47:873

CAGE

- Have you ever felt the need to **CUT** down on drinking?
- Have you ever felt **ANNOYED** by criticism of your drinking?
- Have you ever had **GUILTY** feelings about your drinking?
- Do you ever take a morning **EYE OPENER** (a drink first thing in the morning to steady your nerves or get rid of a hangover)?
- One positive response to any CAGE question suggests the need for closer assessment.
- A positive response to at least two questions is seen in the majority of patients with alcoholism and to all four questions in approximately 50 percent
- Sensitivity of 53% and a specificity of 93% when a combined target of alcohol abuse, dependence and harmful drinking was the goal of screening. Fiellin DA; Reid MC; O'Connor PG SO Arch Intern Med 2000 Jul 10;160(13):1977-89.

- **1 drink per day is recommended drinking limit for persons aged 65 and older**
- **Drink = 12 oz beer, 4-6 oz wine, 1.5 oz hard liquor, 3 oz fortified wine.**
- **Medicare allows reimbursement of this, bill code: G0396**

Modified Caregiver Strain Index (Thorton & Travis, 2003)

Please answer each question according to the following scale:

Yes, on a regular basis (2 pts.) • Yes, sometimes (1 pt.) • No (0 pts.)

1. My sleep is disturbed.
2. Caregiving is inconvenient.
3. Caregiving is a physical strain.
4. Caregiving is confining.
5. There have been family adjustments.
6. There have been changes in personal plans.
7. There have been other demands on my time.
8. There have been emotional adjustments.
9. Some behavior is upsetting.
10. It is upsetting to find the person I care for has changed so much from his/her former self.
11. There have been work adjustments.
12. Caregiving is a financial strain.
13. I feel completely overwhelmed.

Scoring:

0= No caregiver strain

26= Severe Strain

Alzheimer's Association

24-hour helpline

1.800.272.3900

info@alz.org

Targeting Antidepressants

Symptom	First Line Therapy	Other choices
Depression/Anxiety	Citalopram	Escitalopram, sertraline
And Insomnia	Mirtazapine (choose first or add on) 7.5-15mg	Trazodone
And Pain	Duloxetine	Venlafaxine
And Weight loss	Mirtazapine	
And Apathy	Venlafaxine	

Start dose low, increase slowly to effective dose. Add other agents if necessary. Watch and counsel for side effects.

The Confusion Assessment Method (CAM)

Diagnostic Algorithm

Consider the diagnosis of DELIRIUM if 1 and 2, AND either 3a or 3b are positive:

1. Acute Onset and Fluctuating Course

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

2. Inattention

Did the patient have difficulty focusing attention (e.g. being easily distractible) or have difficulty keeping track of what was being said?

3a. 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?

3b. Altered Level of Consciousness

Overall, how would you rate this patient's level of consciousness? (alert [normal], vigilant [hyper-alert], lethargic [drowsy, easily aroused], stupor [difficult to arouse], or coma [un-arousable]). *Positive for any answer other than "alert".*

Sensitivity: 94%-100%; Specificity: 90%-95%

Ref: Inouye, SK et al Annals Int Med 1990;113:941-48

Origin of Behavioral Symptoms

Environment	Process	Comfort	Neurobiology
unfamiliar	no dignity	pain	over-reactive
complex	no choices	wet	under-reactive
frustrating	no role	cold	misperception
disorienting	no intimacy	warm	misinterpret
noisy	hurried	hungry	affectively-dysregulated
busy	harried	impacted	amnesic
boring	can't hear	reflux	
intrusive	can't see	tired	
strangers	can't understand	anxious	
		bad food	

Compare and Contrast Types of Dementia

Disorder	Alzheimer's Dementia	Vascular Dementia
Prevalence	50-70%	15%, 20% mixed AD and vascular
History Onset Duration	Insidious, may present w/ depression, average 8-12 years till death	Hx of HTN, vascular disease, CAD, abrupt but may be insidious
Motor signs	Late	Balance deficits or hemiparesis
Attention	Normal	Difficulty with mental tracking
Memory	Early: trouble learning new info & retaining it	Decreased memory retrieval
Language	Aphasia, anomia, decreased verbal fluency	Variable depending on lesion
Visual Spatial	Mild early and progressive	Variable, depending on lesion
Mood, Affect	Apathy, depression, personality change	Behavioral changes
Executive Function	Mild early and progressive	Can be more prominent than memory loss
Treatment	Acetylcholine esterase inhibitors, Memantine, treat depression, behavioral issues / vascular risk factors	Acetylcholine esterase inhibitors, treat vascular risk factors

Compare and Contrast Types of Dementia

Disorder	Fronto-temporal Dementia	Parkinson's Disease	Lewy Body Dementia
Prevalence	5-15%	1 million Americans	25% at autopsy
History Onset Duration	Insidious, personality change, apathy, disinhibition	Motor signs precede dementia by years	Prominent detailed visual hallucinations
Motor signs	Apractic gait, 30% have extra-pyramidal sx	Tremor, stiffness, gait changes	Parkinsonian signs; motor signs & dementia may occur in same year
Attention	Normal	Slowed thought process	Marked fluctuation in alertness, attention
Memory	Often normal (8% impaired)	Slowing	Mildly impaired early
Language	Impaired, fluent or non-fluent	Slowing	Slowing
Visual Spatial	Minimal problems	Impaired	Prominent visual spatial abnormality
Mood, Affect	Marked apathy, Disinhibition Personality change	>40% have depression	Daytime sleepiness
Executive Function	Abnormal, especially judgment	Slowing of thought process	Impaired
Treatment	Treat behavior, mean age at death 65	Treat Parkinson's disease; avoid Haldol	AVOID neuroleptics, USE: Acetylcholine Esterase inhibitors, Parkinsonism may be difficult to Rx

Cognition Evaluation

Mini-Cog (Scanlan et al, Int J Geriatr Psych 2001; 15:216.) (99% Sensitivity)

- **3-Item Recall**
 - Ask the patient to remember the names of 3 objects
- **Clock Draw**
 - Ask patient to draw a large circle, fill in the numbers on a clock face and set the hands at 11:10

If answers to Mini-Cog not perfect, do SLUMS

SLUMS Examination

1. What day of the week is it? (1)
2. What is the year? (1)
3. What state are we in? (1)
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.
How much did you spend? (1)
How much do you have left? (2)
6. Please name as many animals as you can in one minute.
(0) 0-4 animals (1) 5-9 animals (2) 10-14 animals (3) 15+ animals
7. What are the five objects I asked you to remember? 1 point for each 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.
(0) 87 (1) 649 (1) 8537
9. Please draw a clock face, put in the numbers, and set the time to ten minutes past eleven.
(2) Hour markers okay
(2) Time correct

10. Please place an X in the triangle. (1)



Which of the above figures is largest? (1)

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 in 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? (2)

What work did she do? (2)

When did she go back to work? (2)

What state did she live in? (2)

SCORING

High School Education

Less Than High School Education

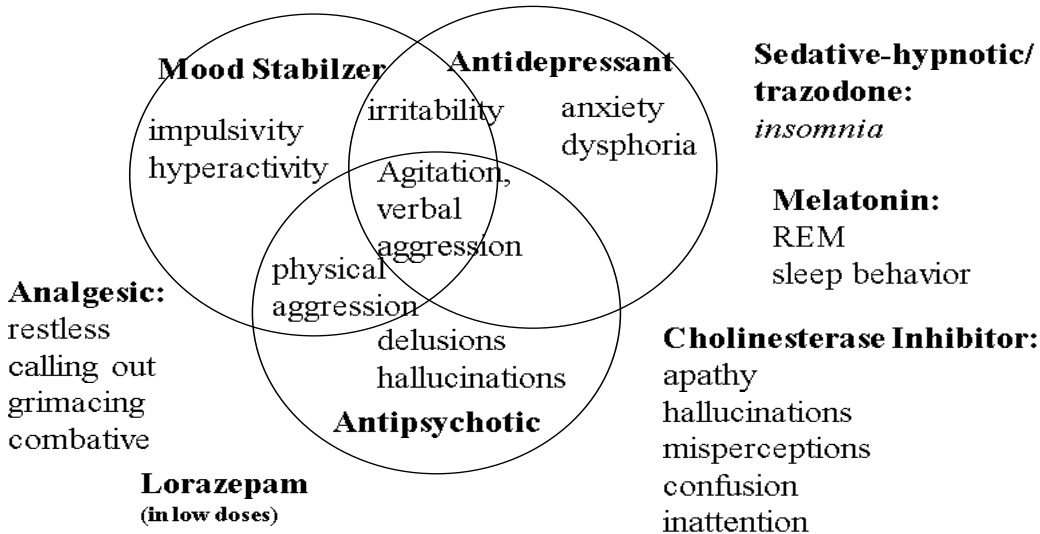
27-30 Normal 25-30

21-26 MNCD* 20-24

1-20 Dementia 1-19

*Mild Neurocognitive Disorder. Tariq SH, Tumosa N, Chibnall JT, Perry III HM, and Morley JE. The Saint Louis University Mental Status (SLUMS) Examination for Detecting Mild Cognitive Impairment and Dementia is more sensitive than the Mini-Mental Status Examination (MMSE) – A Pilot Study. Am J Geriatric Psych 2006;14:900-10.

Symptomatic Approach to Behaviors in Dementia: Medications



Symptomatic Approach to Behaviors in Dementia: Targeting Symptoms

Responsive to Rx

Anxiety

Irritability / anger

Delusions

Hallucinations

Insomnia / parasomnia

Agitation / aggression

Hyperactivity

Dysphoria

Apathy

Less Responsive to Rx

Perseverative yelling

Pacing

Exit seeking

Wandering

Disrobing

Sundowning

Sexual impulsivity