Approach to Cognitive Disorders in Primary Care

What can reasonably be done in an office visit?
What about screening for cognitive disorders?

- USPSTF (2014) doesn’t recommend screening: magnitude of clinically relevant benefit of medications and counseling is uncertain
- Medicare Annual Wellness Visit requires screening, but not testing: direct observation with consideration of information from patient or family
- **Diagnostic evaluation is not screening:** assessment is appropriate when clinician, patient or family have concerns
Patients may resist assessment due to

- Impaired insight: not worried about memory
- Competing agenda, other priorities
- Fears:
  - Loss of independence
  - Impact on family and relationships
  - Loss of occupation, driving
  - Need to move from home
  - Being barred from entering into contracts, executing legal documents
Clinicians may avoid assessing due to

- Opportunity costs: limited time, competing agenda
- Exposure to fraught, time-intensive issues:
  - Driving
  - Family conflicts
  - Patient resistance to recommendations
- Potential iatrogenic harms
- Nebulous diagnostic entities
- Lack of definitive diagnostic test
- Lack of effective treatment
But there are potential benefits...

- Detect treatable disorders
- Modify care plan: with cognitive disorders, there is reduced:
  - Adherence to medications and lifestyle recommendations
  - Ability to navigate health care system (appointments, preps, etc)
  - Life expectancy, especially quality-adjusted LE, with reduced value of screening, prevention
And other non-medical benefits

- Protect patient from
  - Entering into harmful contracts
  - Driving-related harms
- Alert family to risks of
  - Medication errors
  - Financial errors
  - Victimization
  - Wandering
  - Injury in home
From the practice perspective

• Demand for proficiency in basic E+M of cognitive disorders will grow
• Specialty sector (neurology and others) will not be (is not) able to meet demand
• If effective disease-modifying drugs for Alzheimer’s disease emerge from on-going studies, ability to assess, identify and refer candidates for treatment will be highly valued
Questions you might address

• Does patient have cognitive disorder?
• If so, is it Mild Cognitive Impairment or dementia?
• If dementia, what may be cause?
• Are there behavioral complications?
• Are there support system, caregiving issues?
• Is further evaluation needed?
• What interventions might help?
Prerequisites for adequate assessment

• Knowledgeable informant
• Clear visit goals:
  – Diagnosis vs help with behaviors, caregiving
  – Assist in determining:
    • Disability (IADL, BADL dependence)
    • Capacity (insight, judgment, reasoning)
    • Eligibility for services (IADL, BADL status, finances)
• Adequate time to address visit goals
Assess Insight

• Insight: capacity to accurately assess one’s own status

• Essential for:
  – providing reliable history (not status quo ante)
  – cooperating with assessment
  – accepting recommendations

• Asking re purpose of visit can open window into insight

• Erosion of insight begins may begin in MCI
Involve informant... tactfully

- Engage patient throughout interview
- Ask informant to amplify, validate, correct
- If informant’s input causes undue patient distress, consider having informant complete instrument such as Assessing Dementia 8 (AUC 0.908)
- Assess informant’s ability to provide reliable history...
Patient has cognitive disorder if

- Clinician, patient or reliable informant perceives cognitive deficits
- Patient performs below age and education-adjusted expectations on cognitive screening test
- And absence of evidence (on testing) is not necessarily evidence of absence...
Subjective cognitive concerns

• Patient reports concerns, but functions independently
• Patient test performance in normal range for age and education
What to do about subjective concerns

• May not warrant labeling as disorder, but should not be dismissed
• Assess possibility of medical, medication, psychosocial causes
• Offer neuropsychological testing
• Offer to reassess in 6 months
If cognitive disorder, dementia or MCI?

• Dementia (major neurocognitive disorder): significant decline in one or more cognitive domains resulting in **loss of independence in at least some IADL’s** (not due to delirium or other mental disorder)

• Mild Cognitive Impairment (minor neurocognitive disorder): modest decline in one or more domains with **preserved independence** in ADL’s
To distinguish dementia from MCI

• Sensitive IADL probes:
  – Work responsibilities
  – Managing finances
  – Managing medications

• More cognitive domains more severely affected in dementia (test scores > 2 SD’s below norms) vs MCI (1-2 SD’s below norms)
More about MCI

• Patient may report needing more time or other accommodations, using compensatory strategies, experiencing more stress

• Score 1.5-2.0 SD below age-adjusted norm in test of one domain, milder abnormalities in 1-2 other domains

• MOCA score ~ 21 to 23 for persons <76, ~ 18 to 21 in persons >75
MCI Q+A

• Cause? Many potential causes including neurodegenerative diseases, but also medical, medication, psychiatric disorders

• Prognosis? Depends on setting, but most remain stable over several years, 10-15% progress to dementia, smaller fraction reverts to normal

• Subtypes? Amnestic vs other domains; amnestic subtype often prodrome of Alzheimer disease
Cause of dementia? Data needed

History (after medical problem list and medication list):

• Initial cognitive or behavioral sign(s) or affected domain(s), subsequent course

• Neurologic disorders
  - cerebrovascular disease (or atherosclerotic burden)
  - movement disorder

• Risk factors:
  - family history
  - substance use
  - head injury
  - sleep disorder (OSA, REM sleep behavior disorder)
Cognitive domains

- Learning and memory, especially delayed recall
- Language
- Executive function
- Perceptual-motor (visual-spatial)
- Complex attention
- Social
- Behavioral
More necessary data...

Exam:
Vascular: signs of atherosclerosis, atrial fibrillation
Neurologic: focal signs, abnormal movements (tremor, rigidity, gait), autonomic signs (orthostatic hypotension)

Lab:
CBC, CMP, TSH, B12 (HIV, syphilis, paraneoplastic ab panel, etc)

Imaging:
CT or MRI to assess for cerebrovascular disease, tumors, hematomas, NPH
Functional imaging (perfusion or metabolism) to support specific diagnoses (AD vs FTD, possibly Lewy body)
Value in identifying disease?

- No effective disease-modifying treatments
- Management does not depend on diagnosis with exception of NPH and Lewy body
- Prognosis generally not significantly different (with exception of prion disease)
- Diagnostic error rate 10-15% in expert hands
- Mixed causes common, especially older old
Dementing disorders

- AD: domains affected must include memory
- Primary progressive aphasia: initial domain language
- Posterior cortical atrophy: initial domain visual
- Dementia with Lewy bodies: cognitive deficits precede/coincide with parkinsonian signs and psychotic symptoms; often preceded by REM sleep behavior disorder
- Dementia with Parkinson’s disease: cognitive deficits follow motor signs by at least a year
- FTD behavioral variant: onset with new psychiatric disorder
- NPH: triad of urinary incontinence, gait disorder, cognitive deficits
- Very long list of other disorders
Efficient en passant exam

- Grooming, clothing selection
- Minimizing, rationalizing deficits
- Onychogryphosis, old bandages
- Head-turning sign
- Repetitive statements
- Word-finding difficulty, circumlocution, vague
- Irritable, suspicious, disinhibited, disengaged
- Tremor, posture, gait
Choose cognitive test based on

• Time available
• Tolerance of patient
• Goal of detecting early/mild deficits
• Tests previously taken by patient
• Tests familiar to examiner
Suggested tests

• Mini-Cog if time limited, patient impatient, and question is dementia: assesses delayed recall, executive and visuospatial domains

• Montreal Cognitive Assessment if time permits and goal is to detect early deficits, especially in executive function; suggested cut-off score 26
Non-cognitive factors may affect test performance

• Sensory deficits
• Motor deficits
• Low level of education
• Language: testing in second language
• Motivation, cooperation
• Anxiety
• Pre-existing learning disorder
• Bad day: not well, sleep-deprived, stressed, took Ambien or Benadryl last night, etc
Neuropsychiatric complications

- Mood disorders
- Apathy
- Sleep-wake dysregulation
- Agitation and aggression; resistance to care
- Delusions, hallucinations
- Disinhibition
- Wandering, hoarding, repetitive behaviors
Managing agitation and psychosis

- Non-pharmacologic strategies are first line
- Be alert to potential medical/physical causes, such as pain, urinary retention, constipation
- No highly effective, side effect-free pharmaceuticals
- Consider need to protect well-being of caregiver
Non-pharmacologic approaches

• Maintain regular routines, schedules
• Reduce exposure to unfamiliar environments
• Provide sufficient, not excessive, stimulation
• Allow choices, but don’t present too many
• Encourage independence to limit of tolerance
• Don’t confront, correct, over-control
• Provide regular exercise
• Provide dispensation for caregiver lapses
Pharmacologic approaches

• Atypical antipsychotics: caution in Lewy body disease (quetiapine may be safest), Black Box warning re mortality, QTc prolongation, try tapering and D/C’ing
• SSRI’s: some evidence for citalopram 30 mg, but recommended dose not over 20 mg
• Dextromethorphan-quinidine (Nuedexta): need more experience
Presenting your impression

• When status marginal, err on conservative side, for example, MCI instead of dementia
• Be tentative:
  – when assessing after recent acute illness, surgery, chemotherapy: recommend follow-up
  – when do not have blood work or imaging results
• Admit lack of definitive diagnostic test: “probable AD”
• Explain single disorders less common in advanced age
• Explore interest in more diagnostic evaluation
• Offer follow-up in 6-12 months to reassess
Be ready to answer

• What is difference between dementia and Alzheimer’s disease?
• Remember that absence of dementia does not preclude presence of AD in a preclinical stage
What is the prognosis?

• Highly variable: LE for AD dementia is 3-20 years from onset of symptoms, mean 8-10 years
• LE with dementia roughly 50% of LE same age without dementia
• Competing morbidities may govern LE
• Astute observers may observe decline over 6 month period; acute or more rapid decline signals supervening co-morbid disorder
What will happen next?

• Gradual functional loss, from most demanding to simplest tasks:
• IADL’s lost before Basic ADL’s, with complex tasks (finances) lost before simpler tasks (running sweeper)
• BADL loss begins with showering and dressing -> continence and toileting -> walking and transferring -> feeding
• New behavioral issues may emerge...as current behaviors subside
What stage is this?

• Simple intuitive staging system:
  – Mild/early: dependent for some IADL’s
  – Moderate: dependent for most IADL’s, plus showering
  – Advanced: dependent for most BADL’s
  – End-stage: completely dependent

• More complex system: Functional Assessment Staging Test with 7 stages, multiple sub-stages

• Basis for staging is capacity for specific tasks
Can progression be slowed?

• No proven interventions, but can recommend:
  – Regular exercise (walking)
  – Games, puzzles, reading
  – Socialization
  – Mediterranean diet
  – Optimal management of vascular risk factors
Should specialist see patient?

• Neuropsychologist if:
  – Cognitive concerns where brief test is normal
  – Need to determine capacity, potential competency determination
  – Attempt to clarify diagnosis by characterizing pattern of affected domains

• Neurologist if:
  – Patient under 65 years old
  – Atypical presentation or course
  – Movement disorder or other neurologic signs
Other specialists

• Psychiatrist for intractable mood or behavioral problems
• Social worker to assess eligibility for services, direct to resources, assist planning change in living arrangements
• Elder law lawyer to organize finances, execute POA’s, pursue guardianship
• Neurosurgeon to assess NPH triad with ventriculomegaly
Medications for cognition?

• No proof of efficacy for any but cholinesterase inhibitors and memantine
• Efficacy of FDA-approved drugs is statistically significant but marginally clinically meaningful
• Cholinesterase inhibitor side effects are not rare:
  – GI (*weight loss*, nausea, diarrhea)
  – Sleep disturbance, vivid dreaming
  – Bradyarrhythmias
• Disease-modifying treatments are in clinical trials; may want to look for trials enrolling subjects
Should he/she be driving?

- Early dementia may be compatible with adequate safety; if no reported concerns, ask family to observe as passengers; begin planning for driving cessation
- Early dementia with concerns: questionably safe: require testing (Penn DOT or OT program)
- Not safe: revoke license and ask family to take steps to prevent driving
- Assume responsibility for actions taken
How do we cope?

- Ascertain adequacy of living situation, support system; weight loss can be “vital sign”
- Inquire about caregiver(s): health, physical limitations, emotional state, competing demands
- Mediate compromises between patient wish for autonomy and family concerns about safety
- Direct to resources: social worker, Area Agency on Aging, Alzheimer’s Association
Summary

• Assessment of cognitive disorders presents unique challenges
• Generally not an emergency, so can complete assessment over time
• Longitudinal follow-up often clarifies whether disorder present or not
• Develop a referral network with specialty expertise
• Prepare for growing demand for this service