**DEMENTIA**

**Recognition:** no general popn screening, cognitive impairment suspected with a Hx of decline in occupational, social or daily functional status, may be reported by pt, family member, friend and/or caregiver.

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| HISTORY |
| Complete Hx: (important to get collateral Hx) * Review medications, OTC
* Alcohol dependence, drug Hx
* Symptoms:
* Onset gradual, abrupt, stepwise? Dramatic fluctuations in cognition?
* Needs new information repeated or asks same question repeatedly?
* Disorientation to time of day or place, ex. Gets lost when away from home?
* Difficulty with problem solving, sequencing, multi-tasking, mental flexibility? (Executive Function)
* Aphasia: Difficulty understanding or finding words and expressing oneself?
* Apraxia: Difficulty with complex learned motor behaviors, ex: tying shoes, dressing, playing instrument, knitting
* Agnosia: Difficulty recognizing faces or recognizing objects and knowing what they are used for?
* Behavioral and psychological symptoms of dementia, ex: agitation, delusions, hallucinations, apathy, depression, social withdrawal, unaccustomed anger or irritability?
* Other: hx of falls, poor balance, urinary incontinence?
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| PHYSICAL EXAM |  DIAGNOSTIC TESTS |
| * General physical exam
* Gait and balance
* Parkinsonian features
* AbN neurological signs, esp. lateralizing or localizing signs
* Carotid bruits, vasculature
 | * CBC
* Lytes/Ca/glucose
* TSH
* Serum B12
* Other tests based on clinical suspicion: HIV, RPR, renal/liver function
 | * Neuroimaging not routinely indicated
* CT/MRI of brain may be useful, ex: age <60, abrupt or rapid progression, atypical or Dx uncertain, Hx of CA, recent head injury, CNS signs, Vasc dementia suspected, pt on anticoagulants, new deterioration in gait, onset incontinence
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| FUNCTIONAL STATUS | OBJECTIVE TESTS OF COGNITION |
| IADLs* Meal prep/housework
* Managing finances/meds
* Shopping
* Driving, access to transportation
* Telephone
 | ADLs* Bathing/personal hygiene/toileting
* Dressing
* Walking
 | * Standardized Mini Mental State Exam (SMMSE)
* Clock drawing test
* Montreal Cognitive Assessment (MoCA) for suspected Mild Cognitive Impairment (MCI)
* Record for baseline and F/U
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A new presentation of cognitive decline or confusion, rule out acute or treatable causes, *distinguish between dementia, delirium and depression*

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| Feature | DEMENTIA | DELIRIUM | DEPRESSION |
| Onset | Insidious | Acute | Gradual; may coincide with life changes |
| Duration | Months to years | Hours to < one month, seldom longer | At least 2 weeks, but can be several months to years |
| Course | Stable and Progressive Vasc Dementia: Usually stepwise | Fluctuates: worse at nightLucid periods | Diurnal: usually worse in am, improves as day goes on |
| Alertness | Generally N | Fluctuates lethargic or hyper-vigilant | N |
| Orientation | May be N but often impaired for time/later in the dz, place | Always impaired: time/place/person | Usually N |
| Memory | Impaired recent and sometimes remote memory | Global memory failure | Recent memory may be impaired, long term memory intact |
| Thoughts | Slowed; reduced interestsMakes poor judgmentsWords difficult to findPerseverates | Disorganized, distorted, fragmentedBizarre ideas and topics such as paranoid grandiose | Usually slowed, preoccupied by sad and hopeless thoughts; somatic preoccupationMood congruent delusions |
| Perception | NHallucinations (often visual) | Distorted (visual and auditory)Hallucinations common | IntactHallucinations absent except in psychotic depression |
| Emotions | Shallow, apathetic, labileIrritable | Irritable, aggressive, fearful | Flat, unresponsive or sad and fearfulMay be irritable |
| Sleep | Often disturbed, nocturnal wandering commonNocturnal confusion | Nocturnal confusion | Early morning awakening |
| Other features | Poor insight into deficitsCareless | Other physical dz may not be obviousInattentive | Past Hx of mood d/oPoor effort on cognitive testing; gives up easily |
| Standard Tests | Comprehensive assessment (hx, Cpx, lab, SMMSE) | Confusion Assessment Method (CAM) | Geriatric Depression Scale (GDS) |

**Diagnosis:**

Multiple cognitive deficits manifested by both:

Memory impairment and ≥ 1cognitive deficits:

* Aphasia (language disturbance)
* Apraxia (impaired ability to carry out purposeful movement)
* Agnosia (failure to recognize objects),
* Disturbance in executive functioning (planning, organizing, abstract thinking).

Associated with a decline in social/occupational functioning

Not explained by other neurological, medical or Psychiatric disorders

IF not all criteria met consider *Mild Cognitive impairment*: subjective memory impairment and objective impairment with other cognitive abilities preserved, with no medical, neurological or psychiatric d/o.

* May progress to dementia, F/U q6mos and counsel prn

 *Distinguish Alzheimer’s dz from other Dementia’s* (often Mixed Dementia: Alzheimer and Vascular Dementia):

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| Probable AD* Gradual progression
* Negative CNS exam
* No early gait involvement

Prognosis:  | Vascular Dementia* Abrupt onset and stepwise decline
* Temporal connection b/w dementia and CVD
* CVD by focal signs and imaging
 | Dementia with Lewy Bodies* Dementia present
* At least 2 of marked fluctuation in cognition, visual hallucinations, Parkinsonism
 | Fronto-temporal Dementia* Insidious onset and gradual progression
* Early impairment in control of personal, social and interpersonal conduct
* Emotional blunting, loss of insight
* Language deficits
 | Other examples:* Normal pressure Hydrocephalus
* Dementia of late stage Parkinson’s Dz or HIV
* Dementia associated with alcohol dependence
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*In patients with dementia who exhibit worsening function, look for other Dx, don’t assume the dementia is worsening. These dx’s may include depression or infection.*

*Disclose the diagnosis compassionately and respect the patient’s right to autonomy, confidentiality and safety.*

* At disclosure visit, Ask if the caregiver/family member can be in attendance (yes in most situations)
* Consider timing/extent of info and pt/caregiver readiness for coping with the diagnosis
* Use open-ended Q’s ex: What do you think is causing the change in your memory and thinking?
* Establish a relationship – pt/caregiver input is valued and integral to goal setting and care planning
* Discuss anticipated prognosis in a sensitive manner and indicate commitment to F/U care
* Provide written info about dementia care and around support and resources as appropriate

*In patients with dementia, assess competency. (Do not judge clearly competent pt’s as incompetent and vice versa)*

*Develop an on-going care plan/clinical action plan:*

* Identify and modify potential safety issues with pt and caregiver ex: driving, nutrition, med mgmt., kitchen safety, hygiene and wandering
* Support pt functioning and decision making to maximize independence ex: socialization, financial and legal planning, neglect and abuse, end of life care
* Treat co-morbid conditions ex: HTN, depression, delirium, DM
* Refer pt and caregiver to Home and community care for adult day care, home care, respite care, assisted living, long term care services as appropriate
* Refer pt and caregiver to the Alzheimer society
* F/U at least every 6 months

*Assess the needs of and supports for caregivers of pt’s with dementia.*

*Report to the appropriate authorities patients with dementia who you suspect should not be driving.*

* Enter into discussion with the patient early about eventual driving cessation
* Get collateral hx of driving habits from observers
* On cognitive testing, visuospatial abilities and judgment may be predictors of driving risk
* In doubt recommend a performance based eval, ex: road test by ICBC, DriveAble or a driver fitness review through the office of the superintendent of motor vehicles

*In pt’s with dementia, look for possible genetic factors to provide preventative opportunities to other family members and to aid in appropriate decision-making (ex: Family planning).*

* Minority of AD cases are familial, autosomal dominant (5-10%), there are four genes that affect disease development
* With ≥2 Family members with early onset Dementia <60, referral for genetic counseling and testing offered
* If gene identified: referral for 1st degree relatives offered

Quick note on Pharmacotherapy (note: not a key feature):

AChEI’s are approved for symptomatic Rx of mild to moderate Alzheimer’s type dementia

* + VaD or mixed dementia: Treat vascular risk factors. Possible role (AChEIs)
	+ Mixed dementias: Treat both pathologies
	+ DLB: Many patients respond to AChEIs
* Starting dose/usual effective max dose
	+ Donepezil (Aricept) 5mg daily/10mg daily
	+ Rivastigamine (Exelon) 1.5mg BID/3-6mg BID
	+ Galantamine (Reminyl) 8mg ER daily/16mg-24mg ER daily
* AChEI Relative CI’s: PUD, hepatic or renal dz, significant bradycardia or AV block, significant bronchospastic dz, obstructive urinary dz, epilepsy or hx of seizure

Behavioral and psychological symptoms of Dementia (BPSD):

* 1st line: Environmental and behavioral modifications
* Pharmacological interventions (1st line: atypical antipsychotic agents, cautions around increased risk of CV events, stroke, and mortality) for BPSD are only recommended when:
	+ Alternate therapies are inadequate on their own
	+ There is an identifiable risk of harm to the patient and others
	+ Symptoms are severe enough to cause suffering and distress

• Use of antipsychotics in patients with DLB is associated with an increased risk of extrapyramidal side effects and should be used with extreme caution

References:

BC Clinical Practice Guidelines: Cognitive Impairment in the Elderly – Recognition, Diagnosis and Management

Third Canadian Consensus Conference on Diagnosis and Treatment of Dementia

Alzheimer’s Society of Canada: Genetic testing