

Dementia Screening and Assessment

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What is Dementia?

- A decline from a previous level of function
- Demonstrable impairment of memory (DSM-IV-TR)
- Other impairment in at least one or more:
 - language (naming)
 - construction/visuospatial function
 - Judgment/frontal lobe function
 - abstraction
 - personality
- Impairment is sufficient to interfere with function and activities of daily living
- Insidious, and > 6 months

The Silent Epidemic

The facts ...

- That the prevalence of dementia in those over age 65 is 8% meaning that an average family physician's practice has approximately 30 to 40 elderly patients with dementia (National Institute on Aging figures)
- A new case in Canada every 4 minutes (100,000 new cases per year)
- Now (450,000) to 750,000 by 2025
- 3rd most expensive disease in the Canadian Healthcare System
- 1 in 4 Canadians has a family member affected by the disease and half of all Canadians know someone diagnosed with Dementia

(Dalziel, 2007; Alzheimer Society)

Why should we do Dementia Screening?

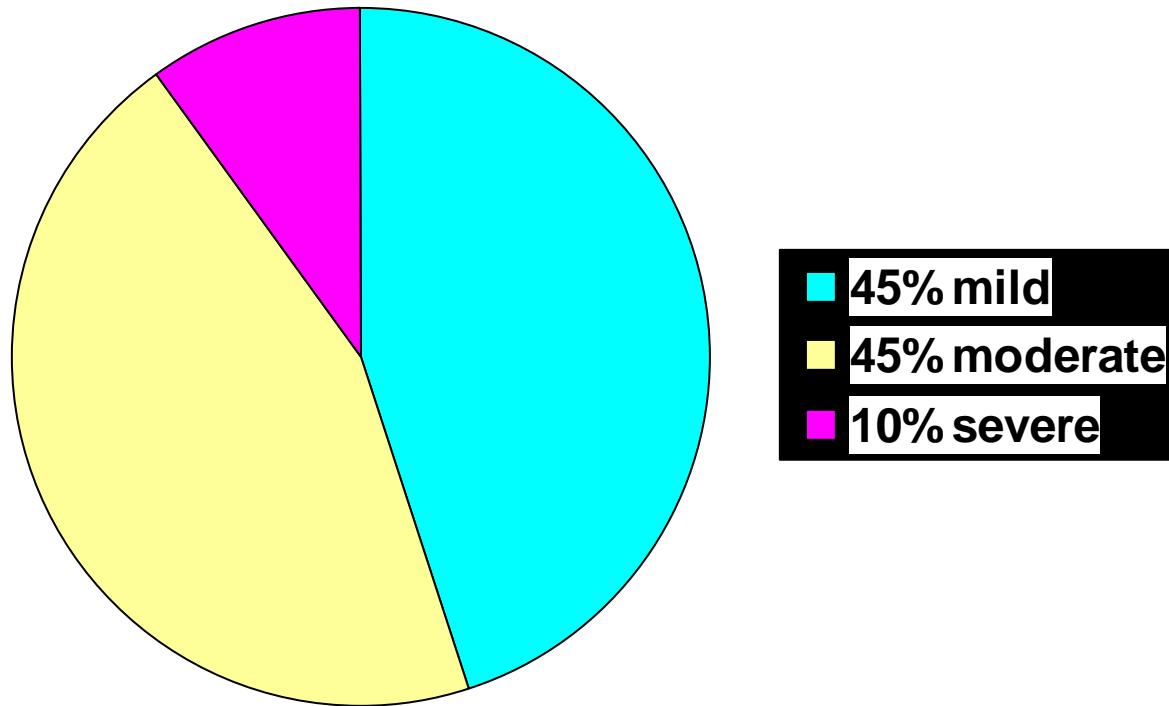
Social

- Social/financial planning
- Early caregiver education
- Safety: compliance, driving, cooking
- Advance directives planning
- Right/Need to know

Medical

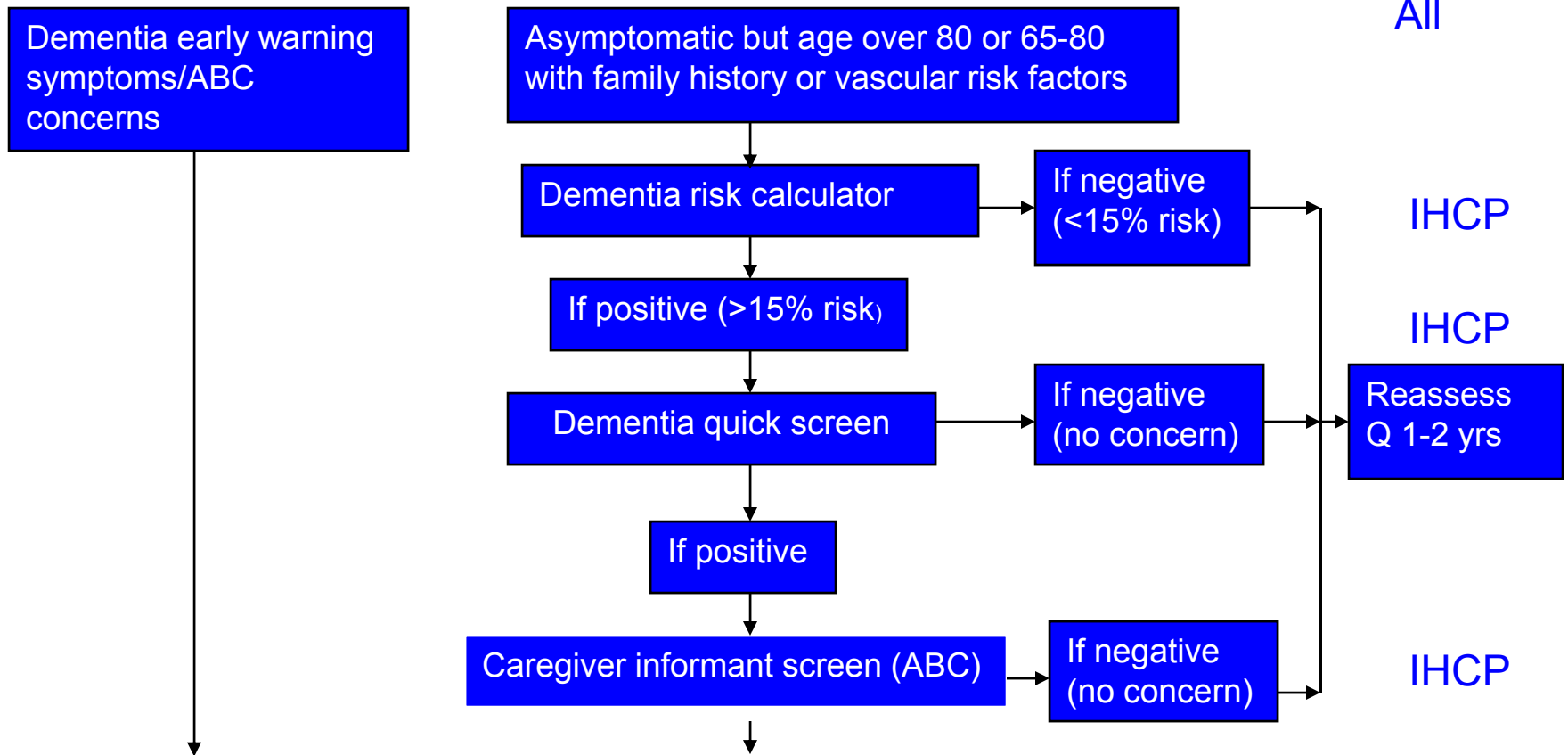
- Reversible cause/component
- Risk factor treatment
- Compliance strategies
- Treatment of other diseases
- AChEI treatment
- Crisis avoidance

Stage of Dementia At Time of Diagnosis – 55% are Moderate/Severe



Zone 1:

Identifying those who need to be screened for dementia



Flowchart Zone 1: Identifying those who need to be screened for dementia

Dementia Early Warning Symptoms (ABC concerns)

For Caregivers :

- Difficulty performing familiar tasks
- Problems with language
- Disorientation of time and place
- Poor and decreased judgment
- Problems with abstract thinking
- Misplacing things
- Changes in mood and behavior
- Changes in personality
- Loss of initiative
- Memory loss affecting day-to-day function

Dementia Early Warning Symptoms

For Professionals:

- Frequent phone calls/appointments – missing/wrong day
- Poor historian, vague, seems “off”, repetitive questions or stories
- Poor compliance meds/instructions
- Appearance/mood/personality/behaviour
- Word-finding/Decreased social interaction
- Subacute change in function without clear explanation/frequent visits to ER
- Confusion - surgery/illness/meds
- Weight loss/dwindles/ “failure to thrive”
- Driving – accident/problems/tickets/family concerns
- Head-turning sign (turning to caregiver for answer)

Dementia Risk Calculator

< 65	1%
65	2%
70	4%
75	8%
80	16%
85	32%

✓ Risk Doubles every 5 years of Age

✓ Each additional vascular risk factor approximately doubles the risk

✓ Positive family history doubles the risk

Overall risk = age risk _____% x family hx risk multiplier ____ x vascular risk multiplier ____ = ____%

Dementia Quick Screen

- 3 item recall (**0-1 correct**: OR 3.1)
- Animals in 1 minute (**<15**: OR 20.2)
- Clock drawing (**abnormal**: OR 24)

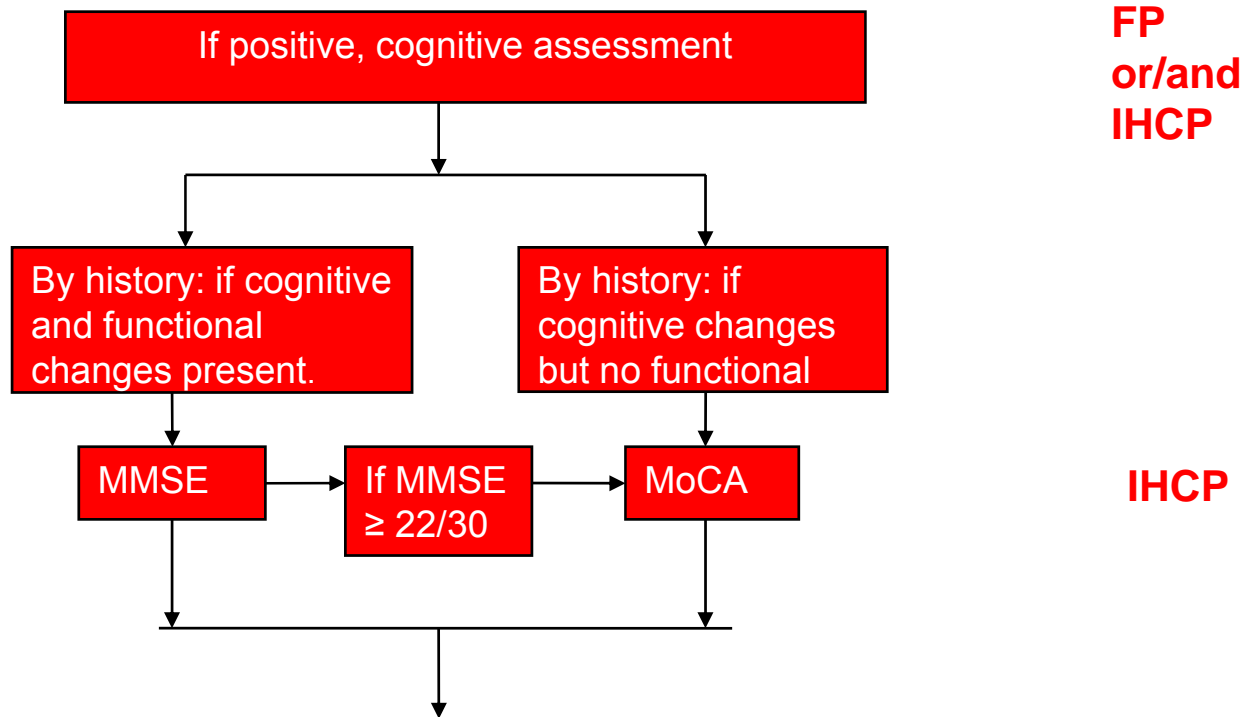
Caregiver informant screen

1. Does the patient repeat or ask the same thing over and over?
Not at all- 0 point mild- 1point Severe- 2 points
2. Does the patient have problems remembering appointments, family occasions or holidays?
Not at all- 0 point mild- 1point Severe- 2 points
3. Does the patient have problems taking medications according to instructions?
Not at all- 0 point mild- 1point Severe- 2 points
4. Does the patient have problems taking medications according to instructions?
Not at all- 0 point mild- 1point Severe- 2 points

Informant questionnaire for possible dementia – if total score is over 3 points a full cognitive assessment is recommended.

Zone 2:

When a more thorough assessment is needed



Flowchart Zone 2:

When a more thorough assessment is needed

History taking instrument

- Age:
- Education:
- Description of Problems (Informant info critical)
- Onset
 - Gradual
 - Abrupt
- Progression:
 - Steady:
 - Stepwise
- Is the client's memory worse than 1 year ago?

Has there been an effect on functional activities?

IADL:

- Pay bills/manage finances (forgets to pay bills, pays bills twice)
- Plan meals and organize shopping (food spoiled)
- Food preparation/cooking (leaves oven or stove on; food has “funny” taste, not properly cook)
- Ability to deal with emergencies (fire, fall, medical emergency, lock outside, power outage)
- Manage medication (misses doses, takes too many)
- Transportation (gets lost, wandering)
- Plan trip and outings
- Home maintenance
- Housekeeping/laundry (difficulty using appliances)
- Ability to carry out hobbies
- Telephone use

Causes that must be ruled out

- Delirium
- Depression
- Alcohol
- Hypothyroid
- Drug side effects (including OTC/herbals)
- Significant hearing/vision problem
- Recent head injury/fall

Have there been any psychobehavioural changes?

- Apathy
- Frustration
- Agitation
- Resistance (e.g. pushing)
- Temper outburst (shout, threaten)
- Aggressiveness
- Disinhibition (e.g. displaying inappropriate sexual behaviour)
- Anxiety
- Irritability
- Depression
- Hallucinations (e.g. sees/feels animals, persons that are not there)
- Delusions (e.g. “this is not my house”, “you are not my wife/husband”, “People are stealing things”, “There is a stranger in the house”)

Has there been an effect on functional activities?

ADL:

- Feeding
- Bathing
- Grooming (hair, shaving, nails, clothing, makeup)
- Dressing
- Toileting
- Transfers
- Ambulation
- Climbing stairs

MMSE

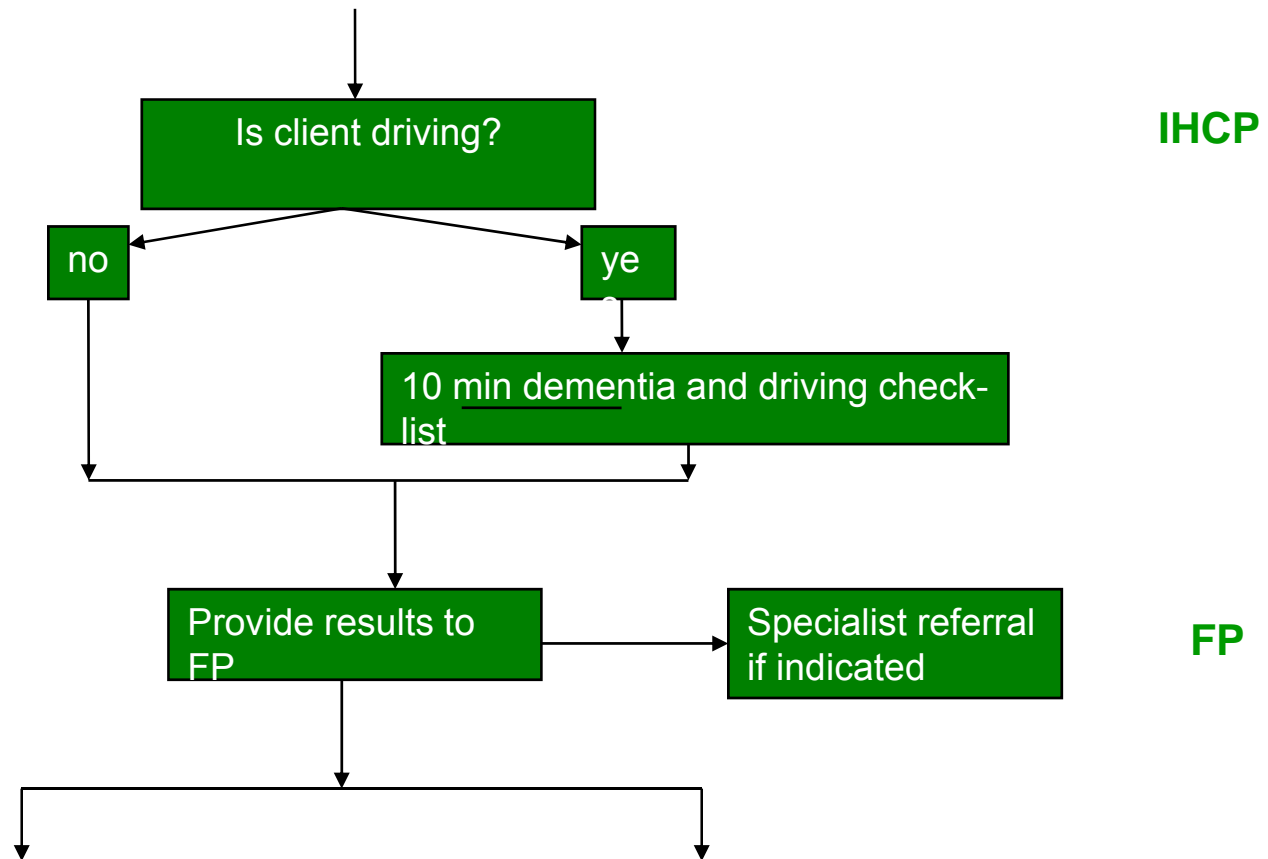
- 30-point scale
- Focus on memory/orientation (16/30 points) - good for AD, poor for non-Alzheimer's dementias
- Poor at upper end at discrimination between normal (especially highly educated) and MCI
- Poor with those < grade 5 education (cut off = 20 for 80 y/o, 19 for 85 y/o)
- If MMSE $\leq 22/30$ and functional problems related to cognition, preferable to complete assessment with MoCA
- Standard deviation (test/retest) is 2 points

MoCA

- 30-point scale
- Available free of charge in multiple languages at www.mocatest.org
- Comprehensive: Many more domains than MMSE (good for AD and non AD)
- Minor: adjustment for education (add 1 point if \leq grade 12)
- MCI = MOCA < 26
- Using a cut-off score < 26 provides sensitivity of 80%, and specificity of 91% to distinguish MCI from normal
- Much better discrimination between

<u>Normal</u> ≥ 26	vs	<u>MCI</u> < 26 (usually 21-25) (function OK)	and	<u>Dementia</u> < 26 (usually < 20) (function affected)
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Zone 3: Driving

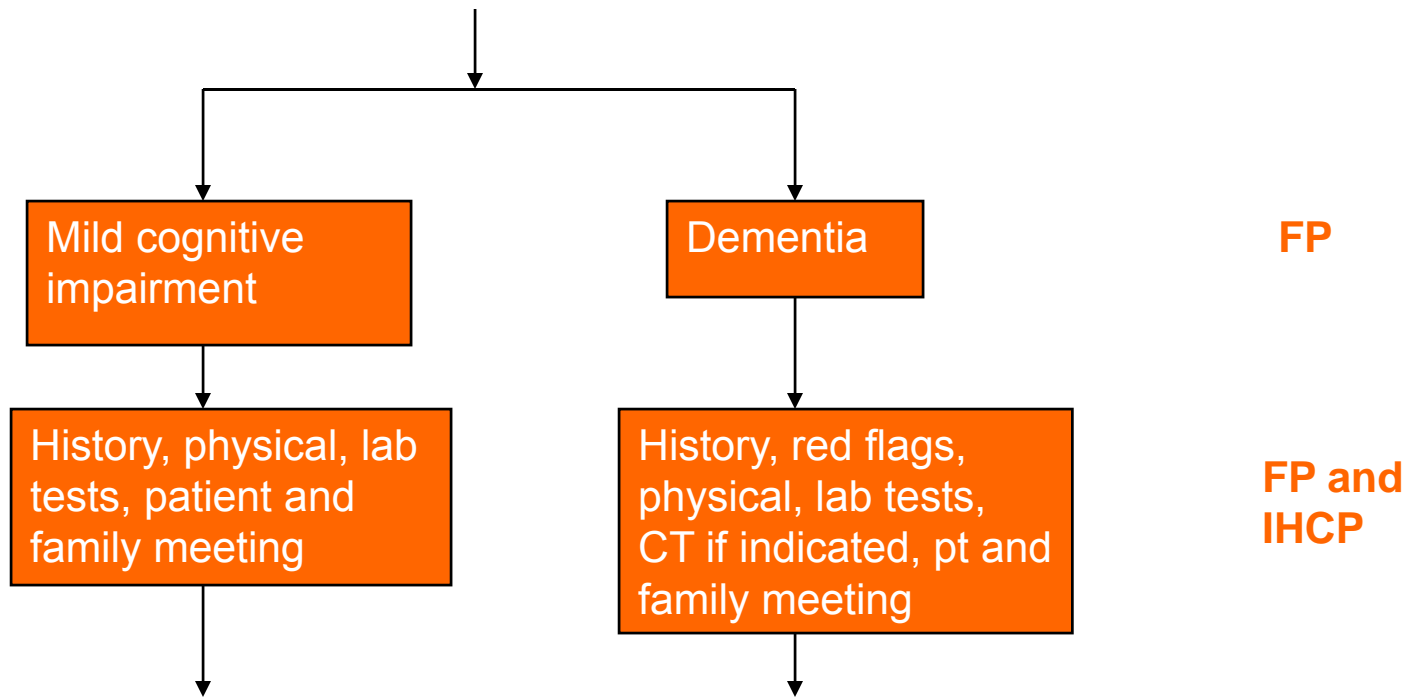


Flowchart zone 3: Driving

Refer to driving section



Zone 4: Diagnostic



Flowchart zone 4: Diagnostic

- Diagnosing is Family Physician's role, but could be supported by Interdisciplinary Health Care Professional in disclosure of dementia diagnosis

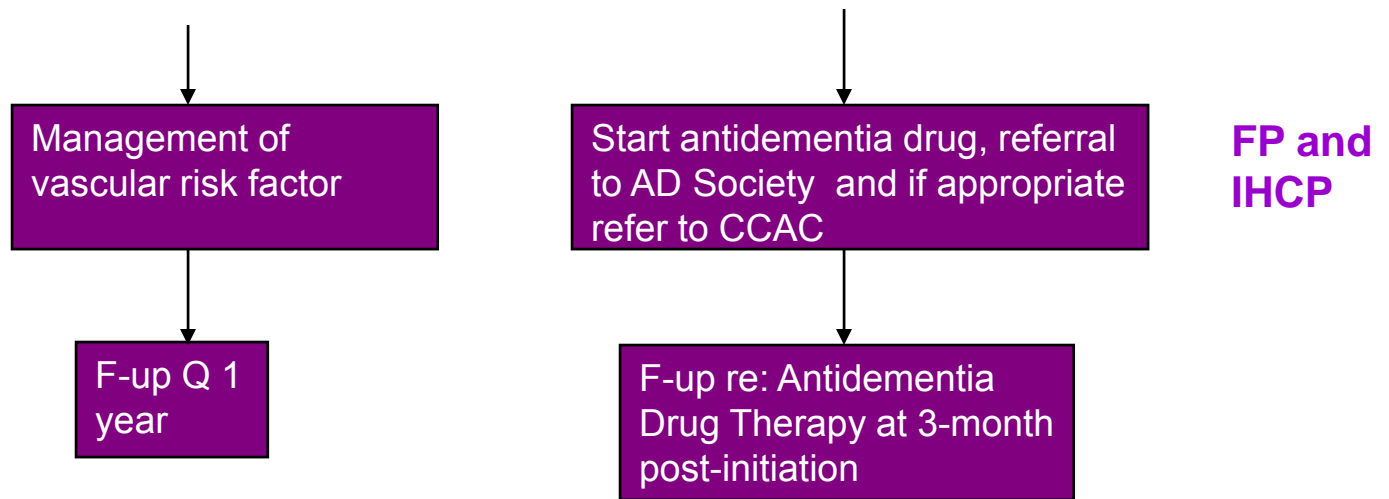
Why is it important to diagnose what type of dementia it is?

- Different prognosis
- Different treatment

Quick clinical features

- **AD:** short term memory, word finding, and way finding.
- **VAD:** acute vascular history, focal findings, positive imaging
- **Mixed AD/VAD:** mixed clinical picture or positive imaging
- **LBD:** fluctuations in cognition, hallucinations, Parkinsonism.
- **FTD:** under 70, behavioral issues, social tactlessness.
- **NPH:** early gait apraxia, incontinence, rapid progression of dementia

Zone 5: Treatment and Management



Flowchart Zone 5: Treatment and Management

Role of Interprofessional Health Care Professional:

- Linking with AD Society, CCAC or other community resources
- Follow-up at 3 months:
 - Formal mental status tests (MMSE, MoCA)
 - Client and caregiver global impression
 - Diary or target symptom checklist for drug treatment follow-up
- If client/caregiver impression is better or the same: positive response
 - continue treatment. Then follow-up every 6 month to a year.
- If patient/caregiver impression is worse: negative response
 - stop and try a different AChEI. Then follow-up at 3 months.