

# From Suspicion to Strategy

Managing Dementia in the Primary Care Setting

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# Importance of management in primary care

- Rapidly ageing population
  - Singaporeans aged 65 and above increased from 13.1% in 2015 to 20.7% in 2025.
  - By 2030, around 1 in 4 citizens (23.9%) will be aged 65 and above
- Dementia incidence increases with age (Local stats- WiSE study – Well being of the Singapore Elderly 2023)
  - 1 in 11 individuals aged 60 and above have dementia
  - 1 in 2 people aged 85 and above have dementia
- Early detection and intervention
- Coordinating and streamlining care for patient with multimorbidity
- Reduce caregiver burnout and crisis admissions

# Session Outline

Early  
recognition  
and diagnosis

Differentiating  
subtypes

Management  
in the clinic

Legacy  
planning

Community  
dementia  
resources

Conclusion

- +
  - • Early recognition and diagnosis



# 4 step approach to cognitive impairment

## Acute or chronic?

- Exclude delirium, evaluate for and treat precipitating causes
- It could be acute on chronic → Sort out acute issue first

## If chronic → Is this dementia?

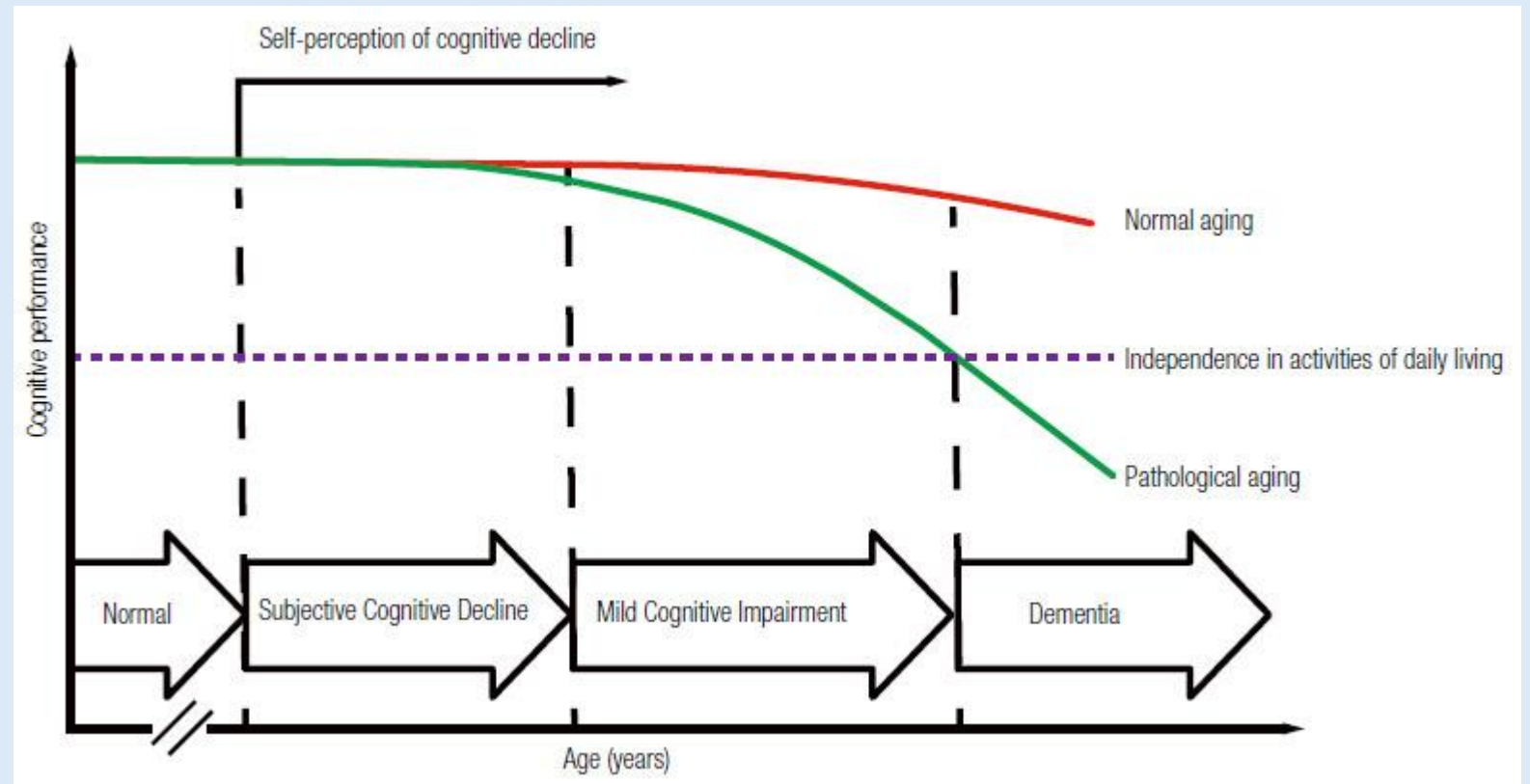
- Exclude depression, late onset psychiatric disorders
- Diagnose dementia

## If dementia → What is the etiology?

## What are the complications?

# Cognitive impairment on a spectrum

- Cognitive impairment can be viewed as a spectrum
- History from a reliable corroborator is key
- Always compare with baseline cognition and function
- Functional loss is the key to diagnosis

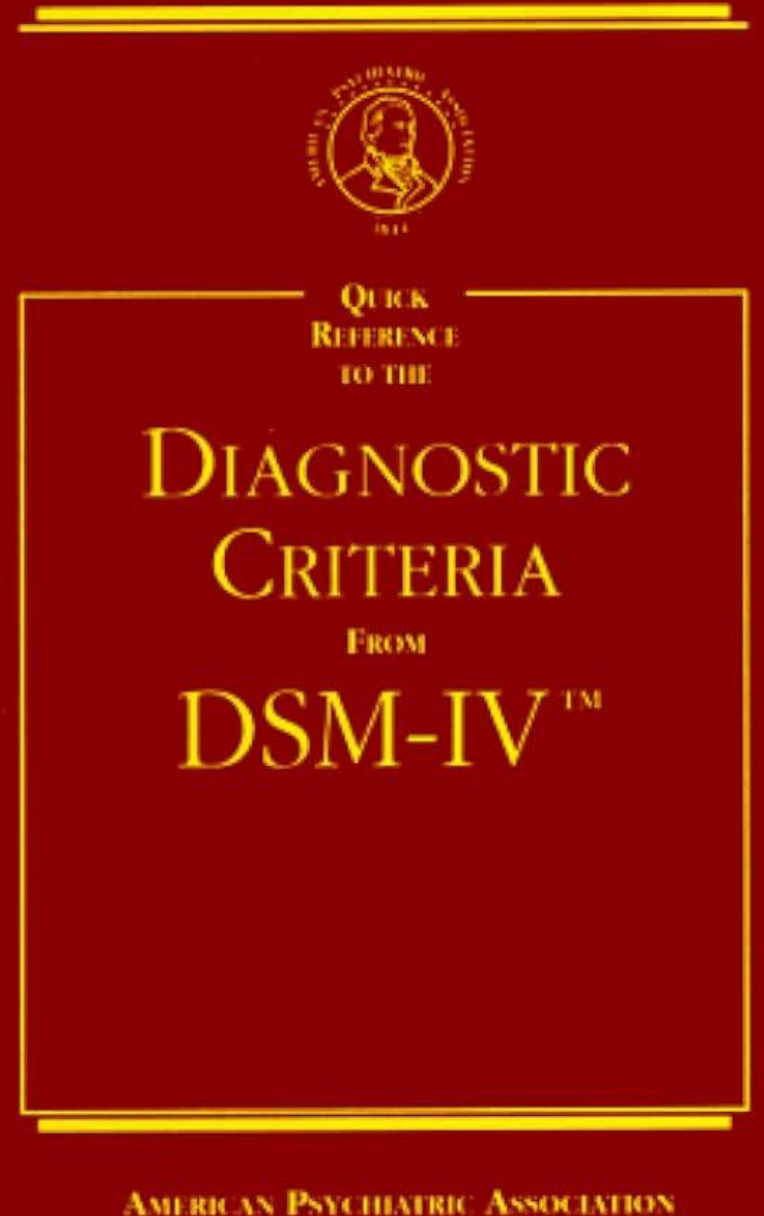




Diagnosis of dementia  
(DSM Criteria)

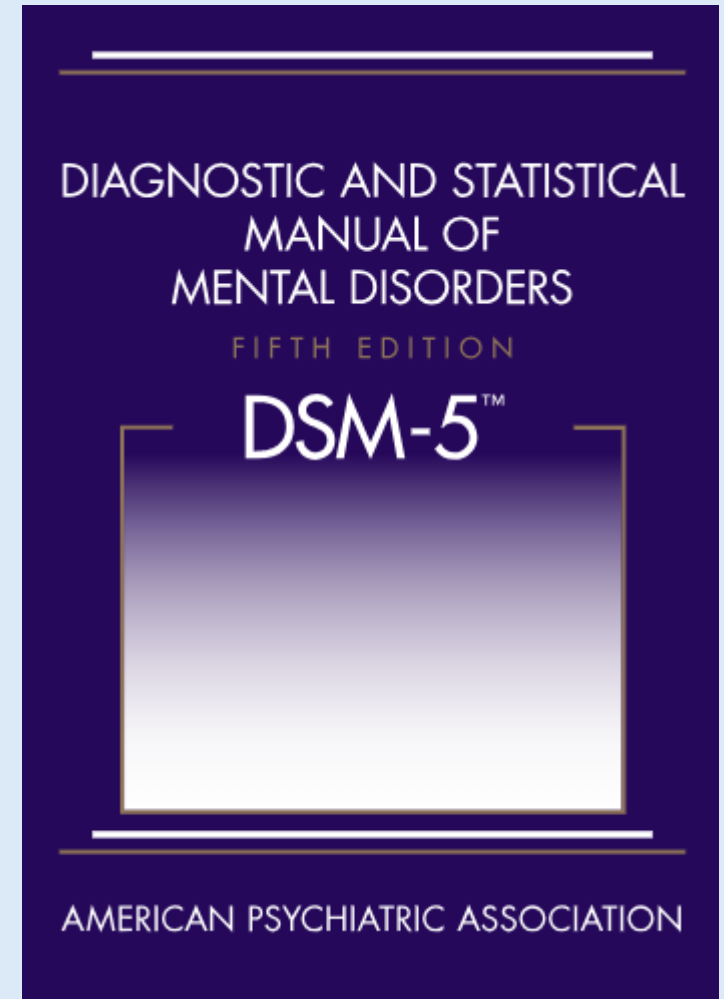
# DSM-IV (1994): Dementia

- Amnesia (necessary criteria) AND decline in one of the following
- Aphasia
- Apraxia
- Agnosia
- Executive dysfunction
  
- Significantly affecting occupational / social functioning



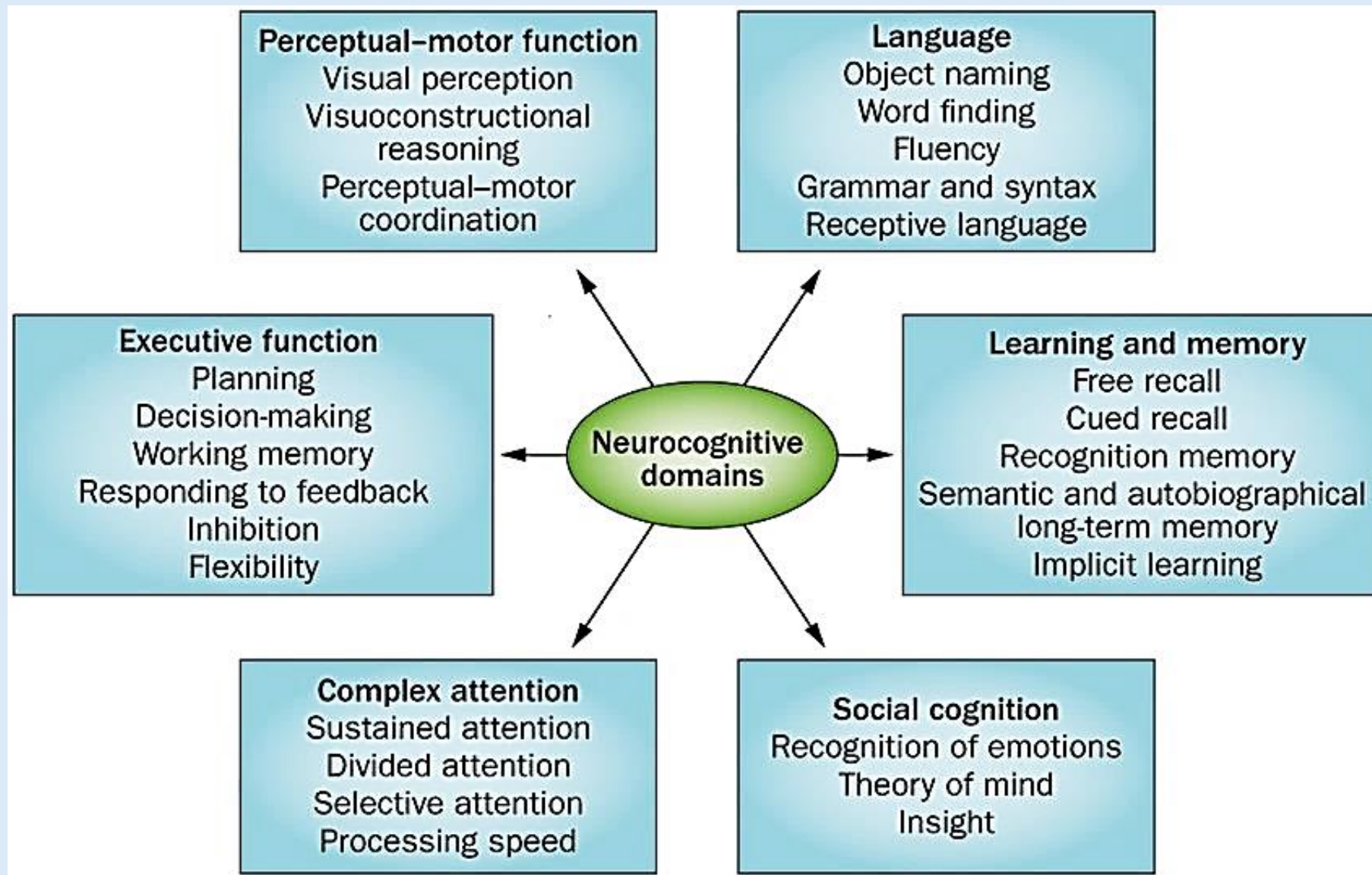
# DSM-V (2013): Major Neurocognitive Disorder

- Subjective cognitive deficit in 1 or more domains:
  - **Learning and memory**
  - **Language**
  - **Perceptual motor**
    - Using tools, spatial tasks, navigating in familiar environments
  - **Complex attention**
    - Focus with multiple stimuli, holding new information in mind, mental calculations
  - **Executive function**
  - **Social cognition**
    - Acceptable social behaviour, recognition of other's emotions
- Objective impairment in cognitive performance preferably documented by neuropsychological testing
- Interfering with independence in everyday activities (eg complex instrumental activities)



# Major Neurocognitive Disorder vs Mild Neurocognitive Disorder

- Major NCD diagnosed when **interference with functional independence** accompanies psychometric evidence of substantial impairment at greater than 2 SD below education adjusted means
- Mild NCD diagnosed in patients whose **functional independence remains preserved** despite psychometric evidence of cognitive impairment > 1 SD below education adjusted means



## How to ask cognitive history according to the DSM V cognitive domains

<b>Learning and Memory</b>	Difficulty recalling recent events Being repetitive Requiring frequent reminders for tasks
<b>Language</b>	Word finding difficulty Grammatical errors Mutism
<b>Executive function</b>	Difficulty in organizing / planning Difficulty making decisions
<b>Complex attention</b>	Easily distracted Unable to perform mental calculation Normal tasks take longer than previously Errors in routine tasks
<b>Perceptual-motor function</b>	Difficulties with familiar activities (driving, cooking) Getting lost in familiar surroundings
<b>Social cognition</b>	Change in personality Less empathetic to other's emotions, more insensitive Less aware of social cues, inappropriate social responses, over familiarity with strangers

# Which to use?

- Advantages of DSM-V

- Better for non-AD dementias - may not have memory loss during early stages (DSM-V does not have amnesia as a necessary domain for diagnosis)

- Drawbacks of DSM-V

- If followed strictly, needs neuropsychometric testing
- Terminology of Major Neurocognitive disorder / mild neurocognitive disorder may be less understandable to layman
- May overdiagnose as do not need amnesic component / only needs single domain
- Caution with single domain impairment in attention (delirium) or social cognition (primary psychiatric disorder such as schiz) --- dangerous to diagnose dementia in treatable conditions.

# Red flags for early dementia

- Pervasive symptoms rather than once off
- Decline from baseline (previously held skills)
- Observer history > history from patient
- iADL loss
  - Financial mistakes
  - Getting lost in familiar places
  - Concerns with driving
- Stress from family members



# Quick cognitive workup

- **Informant history (essential)**

- May wish to plan how to ask about deficits in various cognitive domains, function

- **Cognitive screen**

- AMT
- Montreal Cognitive Assessment (MoCA)
- MMSE

- **Neurological examination**

- **Basic labs** – FBC, RP, Ca, LFT, TFT, B12, Folate, HbA1c (Consider HIV / Syphilis screen if high risk)

- **Neuroimaging** - CT brain / MRI brain

# Mini Mental State Examination

Items	SMMSE	AMT
What day of the week is it?	(1)	
What is the date today?	(1)	
What is the month?	(1)	
What is the year?	(1)	(1)
About what time is it? (within 1 hr)	(1)	(1)
* Repeat the following words:		
"Lemon. Key. Balloon."	(3)	
What is your age?		(1)
What is your Date of Birth?		(1)
What is your home address?		(1)
Where are we now?	(1)	(1)
What floor are we now?	(1)	
In which estate are we?	(1)	
In which region are we now? (N/S/E/W/C)	(1)	
In which country are we?	(1)	
Who is our country's PM?		(1)
What is his / her job? (show picture)		(1)
Subtract \$7 from \$100 and make 5 subtractions	(5)	
* Can you recall the three words?	(3)	
What is this? (show pencil)	(1)	
What is this (show watch)	(1)	
^ Memory phrase: 37 Bukit Timah Road		
Repeat the following:	(1)	
(a) "No ifs, ands or buts " (English)		
(b) "Forty-four stone lions." (Chinese)		
Count backwards from 20 to 1		(1)
Follow a 3-stage command:		
"Take this piece of paper, fold it in half and put it on the floor."	(3)	
Say a sentence of your choice	(1)	
Read & obey what is written on this piece of paper: "Raise your hands".	(1)	
Copy this drawing on a piece of paper	(1)	
^ Recall memory phrase		(1)
<b>TOTAL SCORE</b>	<b>/ 30</b>	<b>/ 10</b>

## MONTREAL COGNITIVE ASSESSMENT (MOCA) Version 7.1 Original Version

NAME: \_\_\_\_\_  
Education: \_\_\_\_\_ Date of birth: \_\_\_\_\_  
Sex: \_\_\_\_\_ DATE: \_\_\_\_\_

VISUOSPATIAL / EXECUTIVE		Copy cube	Draw CLOCK (Ten past eleven) (3 points)	POINTS			
			<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Contour Numbers Hands	___/5			
NAMING					___/3		
MEMORY	Read list of words, subject must repeat them. Do 2 trials, even if 1st trial is successful. Do a recall after 5 minutes.	FACE	VELVET	CHURCH	DAISY	RED	No points
	1st trial						
	2nd trial						
ATTENTION	Read list of digits (1 digit/ sec). Subject has to repeat them in the forward order [ ] 2 1 8 5 4 Subject has to repeat them in the backward order [ ] 7 4 2				___/2		
	Read list of letters. The subject must tap with his hand at each letter A. No points if ≥ 2 errors [ ] FBACMNAAJKLBAFAKDEAAAJAMOFAB				___/1		
	Serial 7 subtraction starting at 100 [ ] 93 [ ] 86 [ ] 79 [ ] 72 [ ] 65 4 or 5 correct subtractions: 3 pts, 2 or 3 correct: 2 pts, 1 correct: 1 pt, 0 correct: 0 pt				___/3		
LANGUAGE	Repeat: I only know that John is the one to help today. [ ] The cat always hid under the couch when dogs were in the room. [ ]				___/2		
	Fluency / Name maximum number of words in one minute that begin with the letter F [ ] _____ (N ≥ 11 words)				___/1		
ABSTRACTION	Similarity between e.g. banana - orange = fruit [ ] train - bicycle [ ] watch - ruler				___/2		
DELAYED RECALL	Has to recall words WITH NO CUE	FACE	VELVET	CHURCH	DAISY	RED	Points for UNCUE recall only
	Category cue	[ ]	[ ]	[ ]	[ ]	[ ]	
	Multiple choice cue						
Optional							
ORIENTATION	[ ] Date [ ] Month [ ] Year [ ] Day [ ] Place [ ] City				___/6		

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www.mocatest.org

Normal ≥ 26 / 30

TOTAL \_\_\_/30

Administered by: \_\_\_\_\_

Add 1 point if ≤ 12 yr edu

# General cut-off scores

- Different cut-off scores for different populations (+ can be age/ education adjusted)
- No strong consensus
- Different papers quote different cut-offs for detection of dementia/ MCI
- Mental test scores are not diagnostic, merely screening tools – key is still in history
- Generally, abnormal –
  - AMT < 7
  - MMSE < 24
  - MOCA < 25

# Neuroimaging

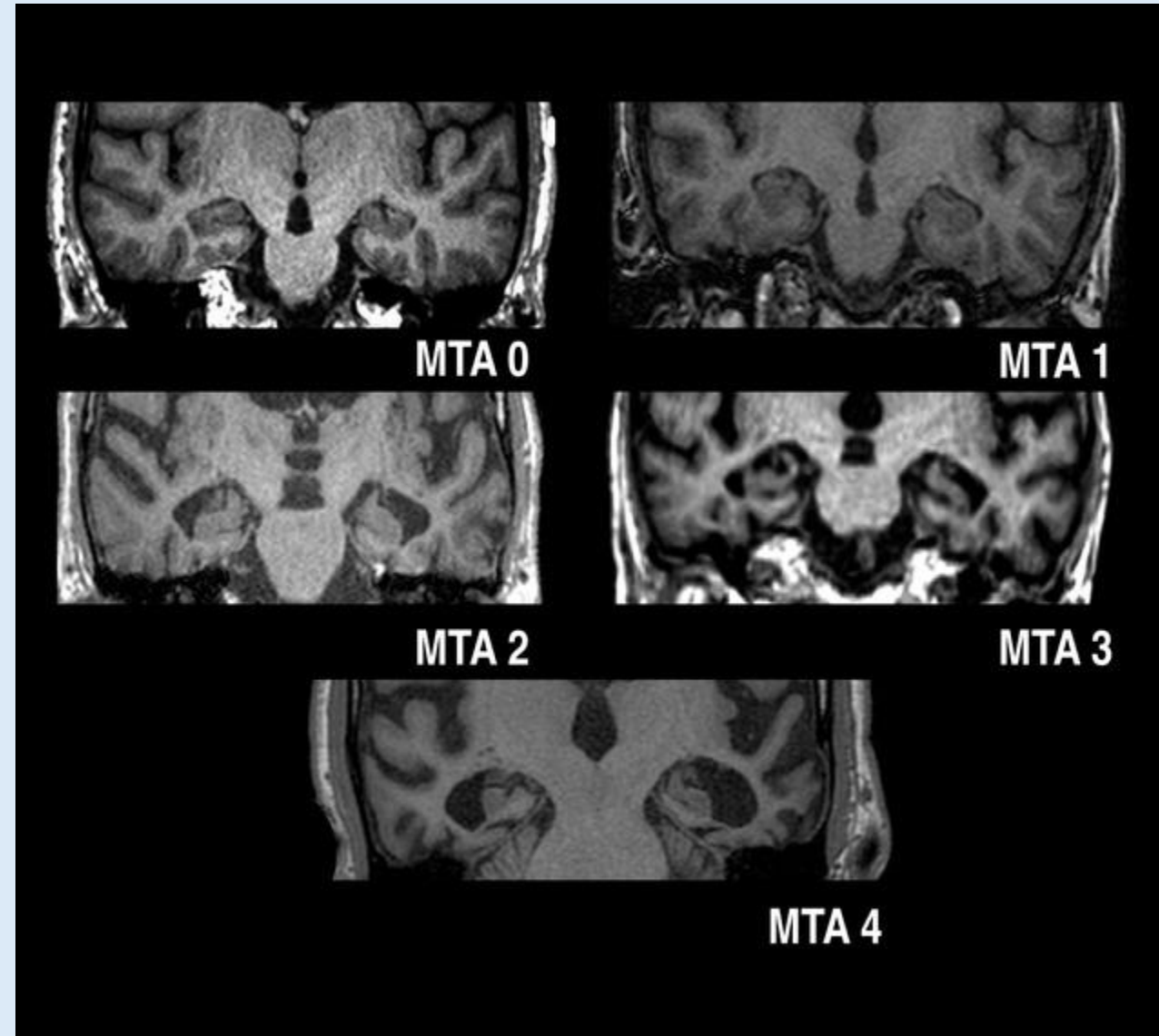
- In most guidelines, structural neuroimaging is recommended for suspected dementia (Lancet commission)
- But do especially for
  - Young - Age < 60 - 65
  - Rapid progression
  - Focal neurological signs
  - Atypical presentation
  - MRI preferred; CT acceptable if access limited.

## Differentiating subtypes



# Alzheimer's Disease

- Insidious onset, gradual progressive decline
- Prominent episodic memory loss – more short term recent events first
- Word-finding difficulties
- Behavioural symptoms come later



# Vascular dementia

- Classically stepwise cognitive decline (for large strokes/bleeds)
- Can also be gradual and insidious (microvascular ischaemia/lacunar)
  - From history may be difficult to distinguish from AD
- Presents more with reduced processing speed and prominent executive dysfunction
- History of stroke or vascular risk factors
- Look for neurological deficits and gait abnormalities
- Specific signs and symptoms really depend on the location of stroke(s)
  - Strategic infarcts on brain imaging (Large vessel strokes in ACA, PCA territory including association areas, watershed carotid territories; small vessel disease including multiple basal ganglia, extensive periventricular WML, bilat thalamic lesions)

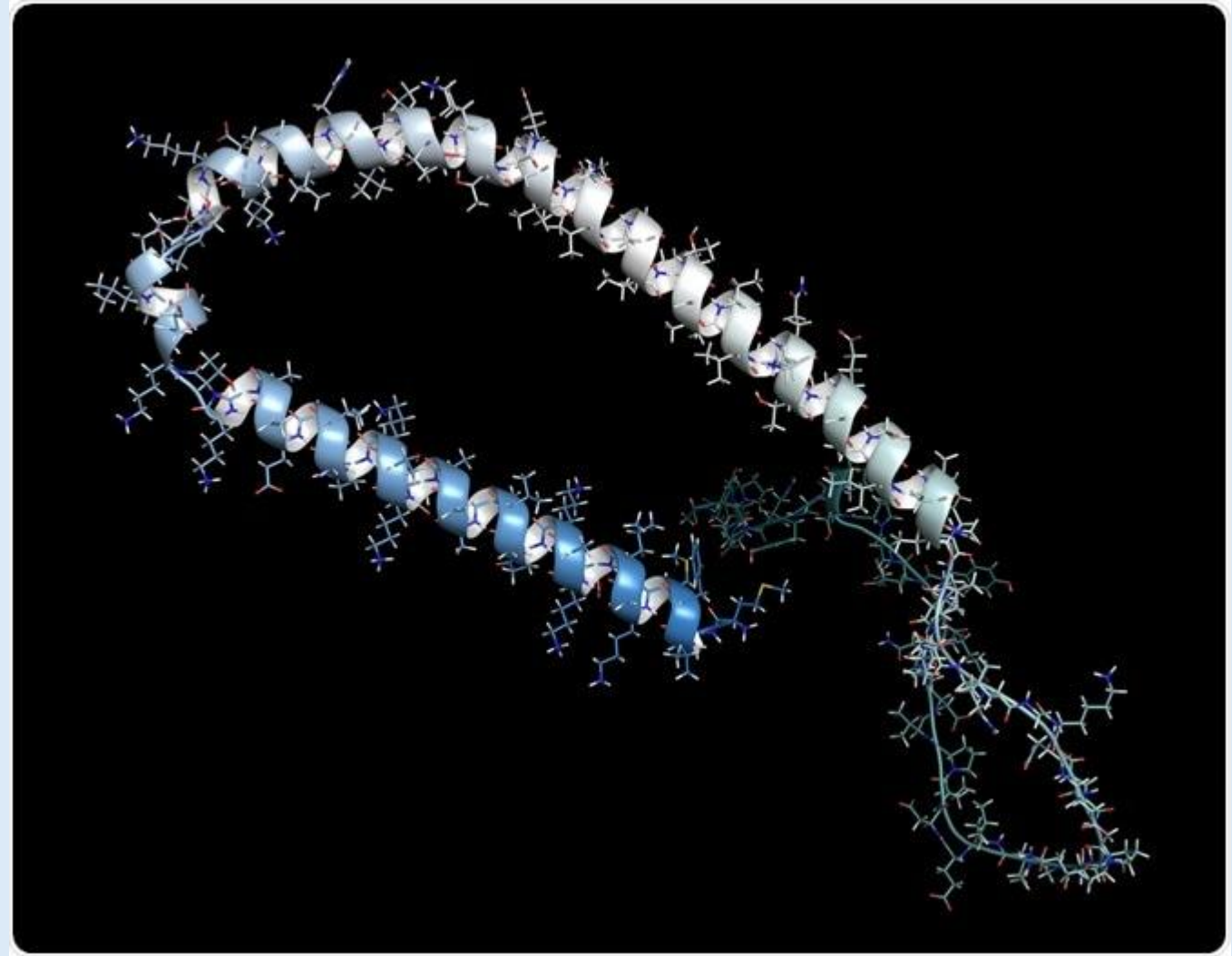
# Lewy Body Disease

## **Dementia with Lewy Bodies (DLB)**

Dementia diagnosed at same time or prior to Parkinsonian symptoms

## **Parkinson's disease dementia (PDD)**

Parkinsonian symptoms lasting for  $\geq 1$  year before development of cognitive decline



# Lewy Body Disease

- Fluctuating cognition – can be abrupt, within the day
- Visual hallucinations – realistic people, animals
- REM sleep behavior disorder – acting out vivid dreams, sleeptalking
- Parkinsonian symptoms – bradykinesia, rigidity
- Neuroleptic sensitivity – avoid or low-dose antipsychotics (can cause severe EPSE)

# Frontotemporal Dementia

- **Primary progressive aphasia** – expressive/receptive language issues
- **Behavioural variant frontotemporal dementia (bv-FTD)**
  - Apathy
  - Loss of empathy
  - Disinhibition – social/sexual
  - Agitation/aggression
  - Hyperorality, change in eating habits
  - Stereotypic compulsive behavior
- Usually early onset < 65 years old
- Memory and executive function may not be affected early on in disease.  
However patient may struggle with these due to lack of attention and impulsivity.



# Referring early



- Early-onset dementia
  - Rapid progression
  - Diagnostic uncertainty
  - Focal neurological signs
  - Difficult behaviours
  - Caregiver stress
- 
- Realistically, at present moment, refer for a new diagnosis of dementia
  - MCI can be monitored in clinic
    - Recommend to keep physically, mentally, socially active
    - Monitor function
  - You may be taking over care for a stable dementia patient discharged from a hospital's memory clinic



# Management of dementia

- **Mild stage:** Focus on maintenance of independence and autonomy
- **Advanced stage:** Carer and psychosocial issues predominate
- Pharmacotherapy only one of the tenets of comprehensive multi-pronged strategy for dementia management
  - Education of patient and carer
  - Non-pharmacological measures
  - Comprehensive caregiver psychosocial intervention



Image from: <https://www.hospice.com/understanding-dementia-progression-hospice-eligibility-and-the-importance-of-the-fast-score/>

# Pharmacological treatment

**Pharmacological treatment can be broadly conceptualised into three broad categories:**

- Reverse or stabilise the underlying disease
- Improve cognitive symptomatology
- Treat BPSD



# Reverse/ stabilize disease

- Treat identifiable reversible causes
  - Treat depression
  - Replace deficiency states (B12 deficiency, hypothyroidism)
  - Correct metabolic abnormalities (hypercalcemia, hypoglycemia)
  - Treat infections (neurosyphilis, HIV associated dementia)
- Treat vascular risk factors
- Disease modifying treatments are becoming available
  - Anti-amyloid therapies clear amyloid beta protein: Lecanemab, Donanemab, positive trials to show modest cognitive benefit
  - Expensive +++
  - Beyond the scope of this presentation

# Improve cognitive symptomatology:

## Cognitive enhancers

- 2 classes
  - **Cholinesterase inhibitors: Rivastigmine, Donepezil**
  - **NMDA receptor antagonist: Memantine**
- Initiate early (mild/ moderate dementia)
- Discuss realistic expectations
- Trial 6 months, assess cognitive/ functional benefit
- Start low, slowly uptitrate to avoid S/E
- If taking off, taper off slowly

	<b>Cholinesterase inhibitors Donepezil / Rivastigmine</b>	<b>Memantine</b>
Side effects	Nausea / vomiting / diarrhoea Anorexia Rare: bradycardia (avoid in heart block) Skin irritation with rivastigmine patch Less GI SE with rivastigmine patch	Headache / giddiness Confusion Reduce seizure threshold (caution in epilepsy)
Efficacious dose	Donepezil 10mg/ day Rivastigmine patch 9.5mg /day	Memantine 20mg/day  Renally cleared. Max 10mg/day for CrCl 30ml/min or less CrCl < 20ml/min – caution
Indications: Improvement in cognition / function	Good evidence for AD Good evidence for DLB /PDD  Less evidence for VaD but still used	Good evidence for AD Some evidence for VaD
Indications: Use in BPSD	Apathy, depression (negative symptoms)	Agitation/ aggression

# Supplements?

- Gingkgo Biloba
  - Wide variety, some may have additives
  - Studies show mixed results, for modest benefits
  - May increase bleed risk, avoid in high bleed risk patients or patients who are on warfarin / antiplatelets
- Souvenaid
  - Modest benefit (improvement in verbal recall in very early AD) in pharma sponsored trials
  - Meta analysis of RCTs show no benefits
  - Expensive – 4 packets \$20



# Applications in your clinic

- May be taking over care of stable dementia patients
- Continue cognitive enhancers if cognition / function stable or declining gradually as expected for disease trajectory
- Discuss comfort focused care and tapering off in advanced stages
- Watch for drug-drug / drug disease interactions
  - Caution memantine dose in worsening renal function
  - Not for memantine if seizure risk
  - Reevaluate donepezil use if experiencing GI symptoms / poor appetite or cholinergic symptoms like increased secretions, urinary frequency etc
  - Lower donepezil / betablocker dose according to heart rate

# Managing BPSD

- First-line: Non-pharmacological
- Check unmet needs: 5Ps
  - Pee
  - Poo
  - Pain
  - Pruritus
  - Physical restraint
- Improve sleep hygiene
- Daytime engagement
- Reduce environmental triggers / provide calm environment
- Person centred care – taking into account the patient’s cultural/ family values, personal life story, previous interests / skills, likes and dislikes



Image from:  
<https://www.acepnow.com/article/which-sedatives-are-best-for-managing-severe-agitation-in-the-emergency-department/>

# Managing BPSD: Pharmacological

- Consider when all reversible causes have been sought and treated, causing significant distress/ risk to patient or others, not responsive to non-pharmacological measures
- Clear target symptom
- Aim short duration, lowest dose necessary
- Consider comorbidities - DLB, stroke/mortality risk, seizure, cardiac

# Clear symptom target

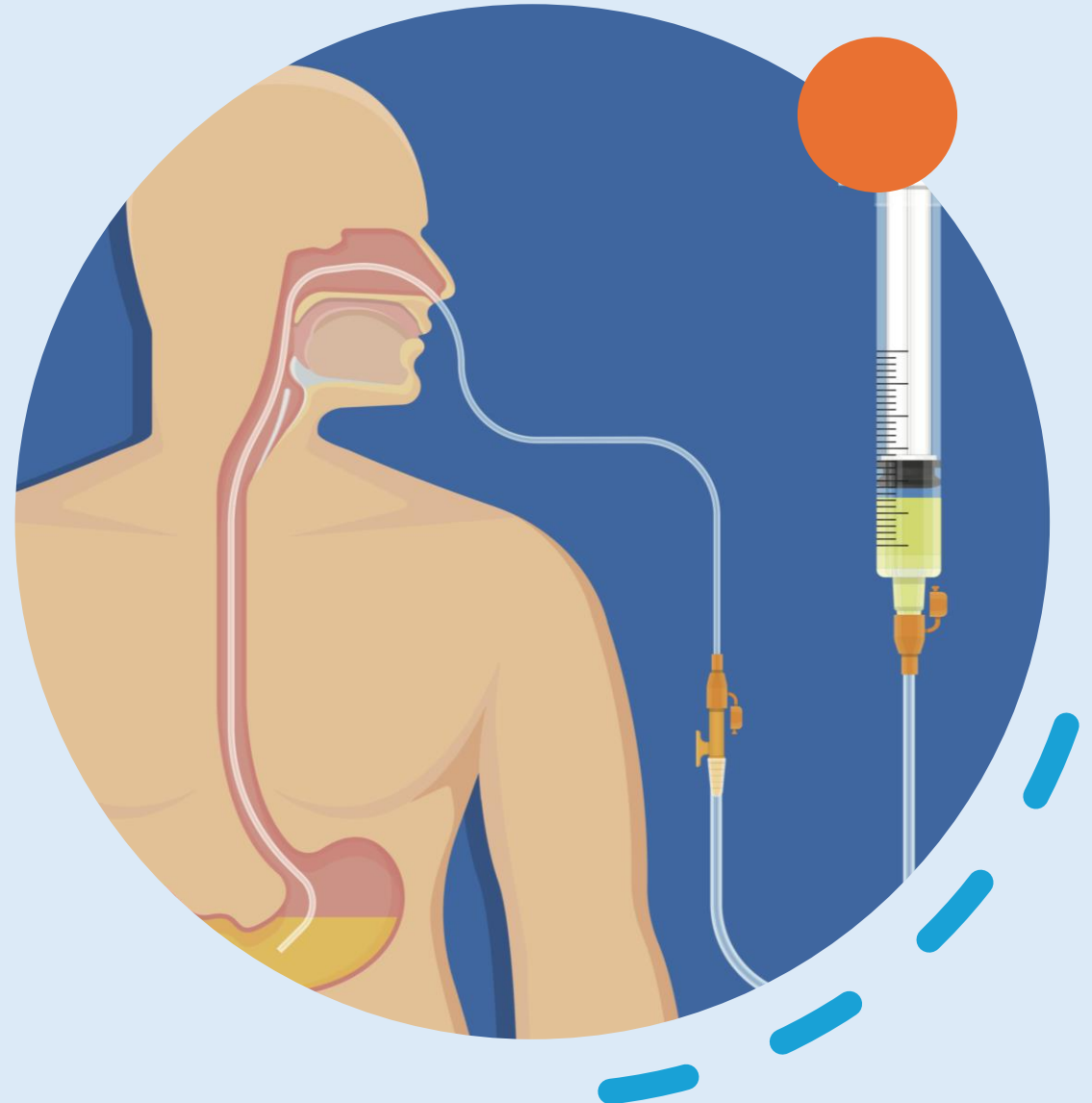
<b>BPSD</b>	<b>Suitable Drug Options</b>
Psychosis	Antipsychotics, SSRI, ChEI, Memantine
Aggression /Agitation	Antipsychotics, SSRI, valproate, Memantine, BZD
Irritability	SSRI, Memantine
Anxiety	BZD, ChEI
Depression	Antidepressants, ChEI
Mania	Valproate
Apathy	ChEI
Sleep	Melatonin, antidepressant (with sleep as side effect), BZD, antipsychotic (concomitant BPSD)
Aberrant motor behaviours	ChEI

# Multimorbidity adjustments

- Relax HbA1c targets
- Avoid overtight BP control
- Consider deprescribing statins in advanced disease
- Simplify medication regimens
- Deprescribe cognitive enhancers in advanced disease
- Deprescribe behavioural medications if not needed (“burnt out BPSD”)

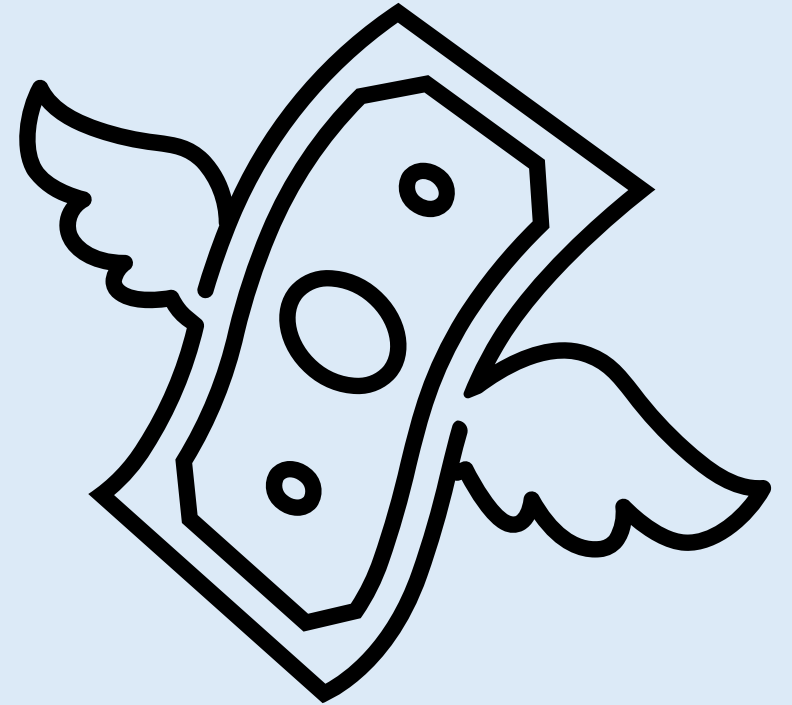
# Advanced dementia

- AGS position statement: “When eating difficulties arise, feeding tubes are not recommended for older adults with advanced dementia.”
  - Careful handfeeding should be offered → as good as tube feeding in terms of outcomes of death, aspiration pneumonia, functional status, comfort
- Namaste care program
  - Includes sensory, psycho-social and spiritual components intended to enhance quality of life for people with advanced dementia
  - Addresses the psychological needs and strives to maintain their personhood respectfully and lovingly, which is the essence of person-centered care.
  - E.g. music, massage, activity, food and hydration
- Goals of care
- Care needs of PWD and caregiver



# Legacy planning

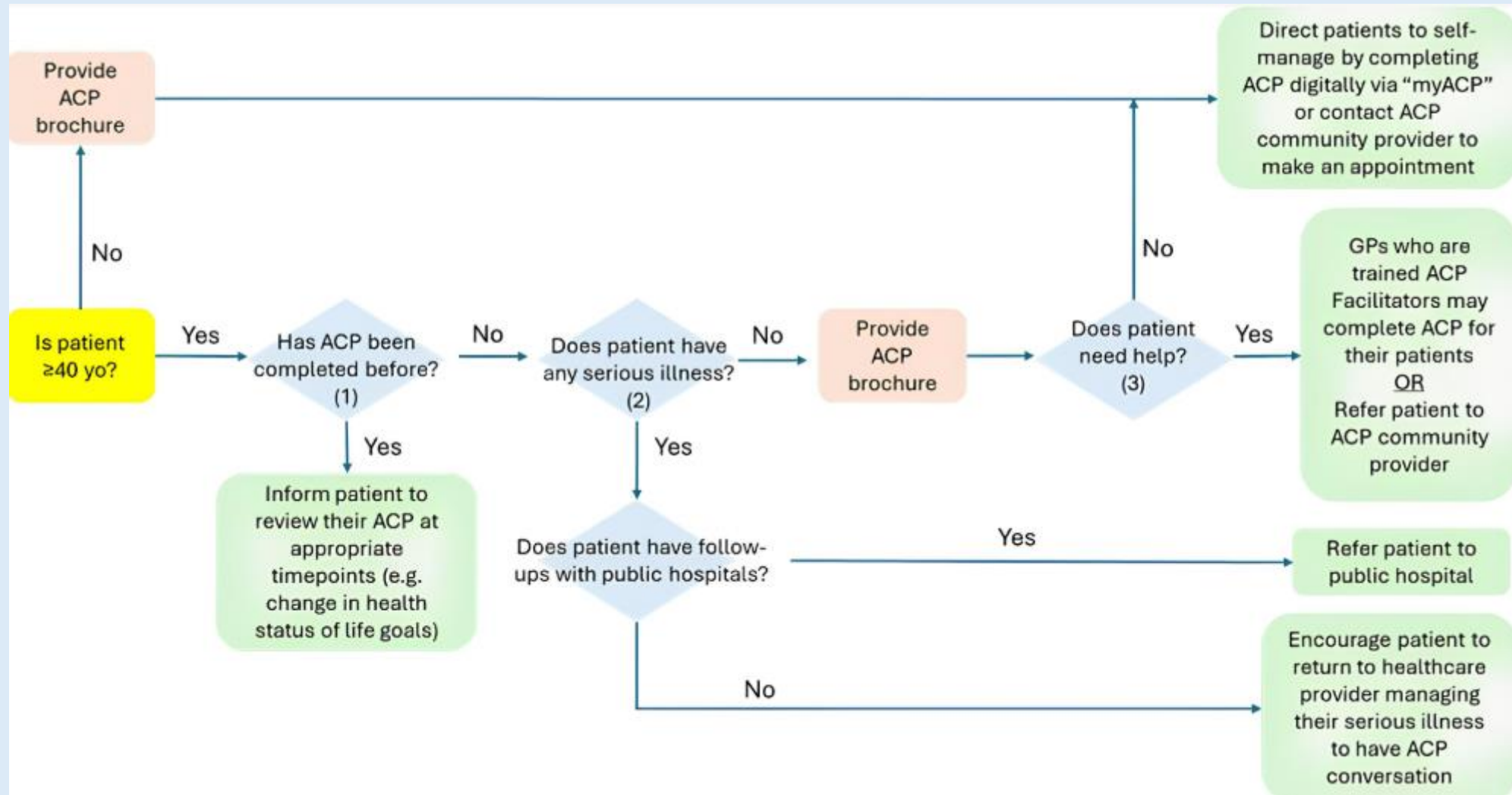
- When still mentally fit, counsel patients to consider legacy planning – 4 tools, for 2 types of situations
- When they lose mental capacity
  - (1) Doing an Advanced Care Plan (ACP)
  - (2) Appointing an LPA done
- When they pass away
  - (3) Writing a will
  - (4) Making a CPF nomination



# Advanced Care Plan (ACP)

- ACP is an ongoing conversation that supports individuals to understand, communicate and document their values, goals and priorities regarding future care in the event they lose mental capacity.
- 2 types: General ACP and Preferred Plan of Care (PPC)
- First: Ask if done ACP/ check on NEHR
- Refer
  - MyACP on My Legacy portal – well patients with no serious illness
  - ACP community providers (<https://mylegacy.life.gov.sg/listing/acp-providers/results>) – well patients with no serious illness but need face to face assistance
  - Their respective public hospital – for patients who have serious illness (this includes dementia)
- Most patients with mild / mild-mod dementia will be able to participate in an ACP discussion. Patients without mental capacity will still benefit from an ACP (PPC discussion)





# myACP online

This helps the healthcare team and your loved ones in tailoring care and treatment plans to align with your preferences and current quality of life.

Reflect on your personal activities and elaborate as much as possible while considering these questions:

- What brings joy to my life?
- What activities are meaningful to me?
- What abilities are important for my quality of life?

**Select activities that are important for you to enjoy your life.**

You may select as many options that are applicable to you.

Carrying out daily tasks by myself

Care for myself by showering, dressing, eating, toileting, walking or moving around on my own.

Spending time with loved ones

Enjoy the company of my family and friends and do meaningful activities together.

Caring for loved ones

Help family and friends with daily activities like preparing meals, performing household chores, or providing transport.

Exercising regularly

Engage in physical activities like working out, going for fitness classes, or playing sports.

Travelling

Explore new destinations or cultures, and making memories around Singapore or overseas.

# Lasting Power of Attorney (LPA)



# Prepare a Lasting Power of Attorney

Appoint trusted persons to help you make decisions on your behalf in the event you lose mental capacity.



1

## Prepare your Lasting Power of Attorney (LPA) Form 1 online

As a Donor, you may appoint 1 or 2 [Donees](#) ⓘ and up to 1 Replacement Donee.

Decide what powers to grant them:

- your [personal welfare](#) ⓘ
- your [property and affairs](#) ⓘ
- both

2

## Wait for all Donees to accept their appointments

Your Donees and any Replacement Donee will be notified via SMS or email. They must accept or reject their appointment by logging in to the Office of the Public Guardian Online (OPGO) with their Singpass.

3

## Visit an LPA Certificate Issuer to certify your LPA

Once all your Donees and any Replacement Donee have accepted their appointments, visit an [LPA Certificate Issuer \(CI\)](#) ⓘ to certify your LPA and sign using Singpass digital signature.

Make sure your chosen CI can certify your LPA online.

[Find a LPA CI](#) ↗

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## Wait for LPA to be registered

The CI will submit your LPA application to the Office of the Public Guardian (OPG) on your behalf via OPGO.

You will be notified when your LPA is registered. You and your Donee or Donees can view your LPA on OPGO.

# LPA

- LPA certificate issuer (Psychiatrist, practising lawyer, accredited medical practitioner) will need to certify that the donor is aware of the implications of making an LPA
- Usually with a formal diagnosis of dementia, it is advisable to seek help in ascertaining patient's mental capacity to make an LPA – psychiatrist / geriatrician following up for dementia in tertiary centre or new psychiatry referral
- If an LPA cannot be made → court appointed deputy (CAD)

# Community Dementia Resources

## Community Mental Health (CMH) Resource Kit for General Practitioners (GPs)

A toolkit providing information and resources on CMH services to assist GPs in supporting patients and caregivers.



Developed by:



Supported by:



# Community Dementia Resources

- Community Intervention Team (COMIT)
  - Provides psychotherapy and psychosocial interventions / psychoeducation support for individuals with mental illness/ dementia and their caregivers
  - Each HSG GP is paired to a COMIT team within their vicinity
- Dementia Singapore
  - Caregiver support services
  - Enrichment programmes
- CARA app- an initiative by Dementia Singapore, supported by National Council of Social Service (NCSS) and the Agency for Integrated Care (AIC).

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## Community Support

Scan the QR code to find the COMIT that HSG GP clinics have been paired with

- Every HSG GP is paired to a COMIT within their vicinity
- Refer to this list on Primary Care Pages for your paired COMIT and its contact information  
<https://for.sg/gp-comit-pairing-list>
- Start referring your patients accordingly



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## Referral Process from GP to COMIT

1. GPs can refer to the COMIT through **writing a physical memo** for the patient to walk-in to the COMIT. The memo should minimally contain:
  - Patient's name and NRIC
  - Presenting issues and reason for referral,
  - Psychotropic medication started
  - Clients' contact number and address
  - Clinic's contact details
2. For GPs who are familiar with sending referrals via CareinMind (CIM) [careinmind@aic.sg](mailto:careinmind@aic.sg), this referral route will remain.
3. COMIT will contact all patients referred within 3 working days to conduct mental health assessment.

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# Community Dementia Resources

## A. Home-based

PROGRAMMES/SERVICE	WHAT THEY DO?
<b>Home Personal Care (HPC)</b>	<u>Home Personal Care</u> offers assistance with daily activities such as light housekeeping, showering, medication assistance and cognitive engagement, along with providing caregivers with temporary relief.
<b>Meals on Wheels (MOW)</b>	<u>MOWs</u> delivers meals to homebound patients who cannot purchase or prepare their meals and lack caregiver assistance.
<b>Home Therapy</b>	<u>Home Therapy</u> offers rehabilitation services, including physiotherapy, occupational therapy, and speech therapy, at home to help patients regain/ maintain their functional abilities.

## B. Centre-based

PROGRAMMES/SERVICE	WHAT THEY DO?
<b>Dementia Day Care Centres (DDCC)</b>	<u>DDCCs</u> offer a full day programme for patients living with dementia suited for a centre-based care environment. This service focuses on sustaining or enhancing seniors' physical health, cognitive functions, and social well-being through engaging and recreational activities.
<b>Community Rehabilitation Centres (CRC)</b>	<u>CRCs</u> offer physiotherapy and/or speech therapy to patients whose conditions impair daily activities such as mobility or restroom use.
<b>Nursing Home Respite Care</b>	Selected nursing homes, equipped with specialised dementia facilities, provide targeted care and support for patients and caregivers needing short-term accommodations, ranging from a few days to several weeks.

## C. Referral Process

For referrals to the abovementioned services, please refer to the following:

STATUS	POINT OF CONTACT
<b>GP under a PCN</b>	Please contact your PCN HQ for referral process assistance.
<b>Non-PCN GP</b>	Please reach out to your account manager or email <a href="mailto:gp@aic.sg">gp@aic.sg</a> for more support.

# Conclusions



Losing function as a result of cognitive decline is the crux of diagnosis for dementia



Cognitive history is the most important diagnostic tool



Recognise red flags for early referral to the hospital



Counsel patients on legacy planning before it is too late



Make use of community resources to support patients and their caregivers



# Thank You

Tan Tock Seng Hospital • Khoo Teck Puat Hospital • Woodlands Hospital • Yishun Community Hospital • TTSH Integrated Care Hub  
Institute of Mental Health • National Skin Centre • National Centre for Infectious Diseases • NHG Cancer Institute • NHG Eye Institute • NHG Heart Institute  
Population Health • NHG Polyclinics • Diagnostics • Pharmacy • Community Care • NHG College • Centre for Healthcare Innovation