Dementia & Cognitive Disorders: Disorders: The Clinical Playbook

A Visual Diagnostic & Therapeutic Pathway

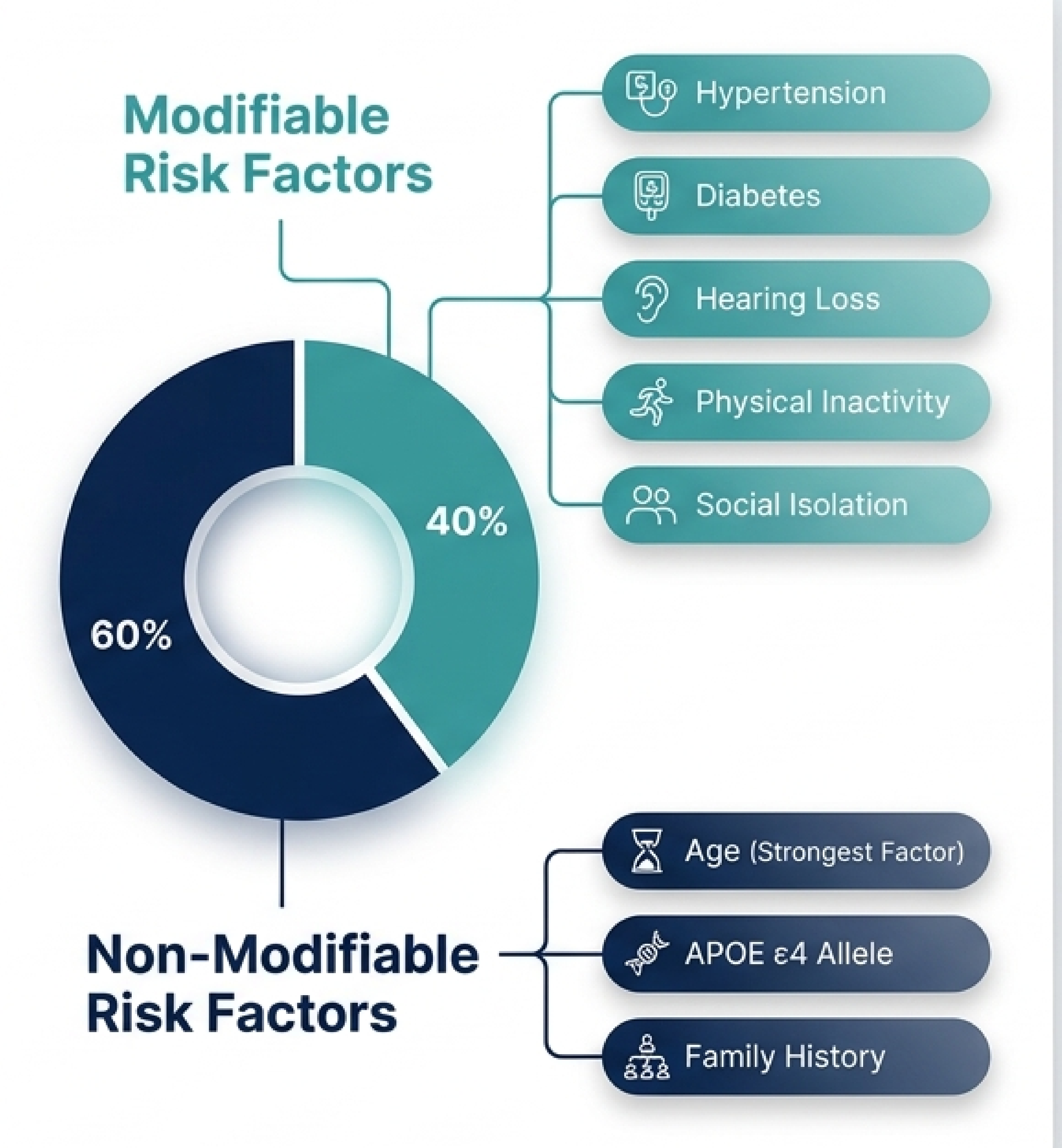
2nd Leading Cause of Death in Australia

849,300
Projected by 2054

411,100
Australians living with dementia in 2023

$36 Billion
Total annual cost

2023 2036 2040 2054



Triggers for Cognitive Screening

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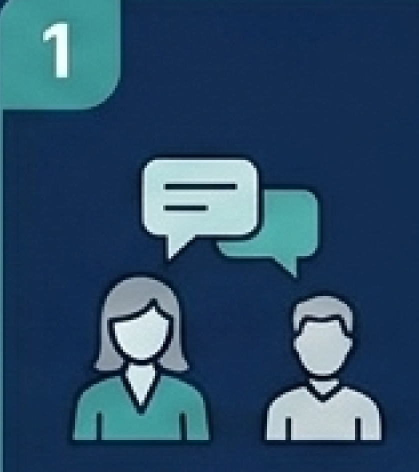


Expressed concern about memory or cognitive changes (Patient or Informant).

2

Observed functional decline (missed appointments, medication errors, financial mismanagement).

3

RACGP Health Assessment for patients aged ≥75 years (MBS Item 707).

Proceed to Cognitive Screening

Tool	Cut-off Score	Time	Clinical Utility
Mini-Mental State Examination (MMSE)	≤23/30	5–10 min	Widely validated, but copyrighted and heavily education-biased.
Montreal Cognitive Assessment (MoCA)	≤25/30	10–15 min	Superior sensitivity for Mild Cognitive Impairment (MCI); assesses executive function.
★ General Practitioner Assessment of Cognition (GPCOG)	≤4/9 (Patient)	5 min	Designed for Australian GPs. Includes informant component.
Rowland Universal Dementia Assessment Scale (RUDAS)	≤22/30	5–10 min	Crucial for Culturally and Linguistically Diverse (CALD) and Indigenous populations. Minimal education bias.

DIFFERENTIATING DELIRIUM & DEMENTIA

DELIRIUM (Medical Emergency)

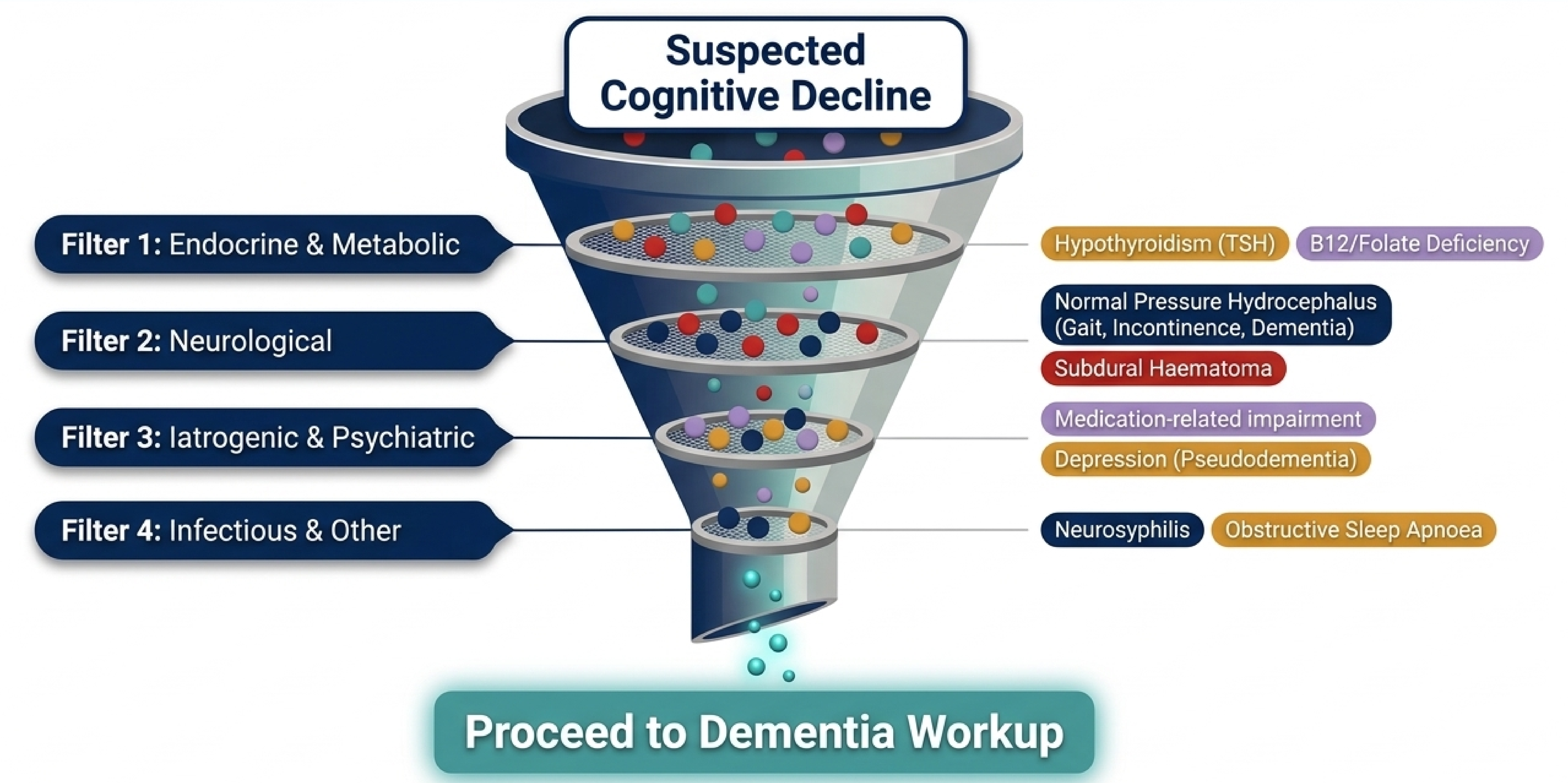
- **Onset:** Acute (hours to days)
- **Course:** Fluctuating (often worse at night)
- **Consciousness:** Altered, clouded, or drowsy
- **Attention:** Markedly impaired (**Hallmark**)
- **Reversibility:** Usually reversible with treatment

DEMENTIA (Progressive Syndrome)

- **Onset:** Insidious (months to years)
- **Course:** Gradual, progressive decline
- **Consciousness:** Normal until late stages
- **Attention:** Relatively preserved until moderate-severe
- **Reversibility:** Generally irreversible

Caution: Delirium is frequently superimposed on pre-existing dementia.
Assess for acute changes from baseline.

DIAGNOSTIC WORKUP: RULING OUT REVERSIBLE CAUSES

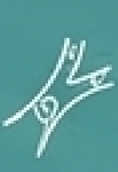


CONFIRMING DIAGNOSIS | EXCLUDING REVERSIBLE CAUSES FIRST IS CRUCIAL.

DEMENTIA SPECTRUM & DIAGNOSTIC MATRIX

Prevalence Spectrum of Dementia

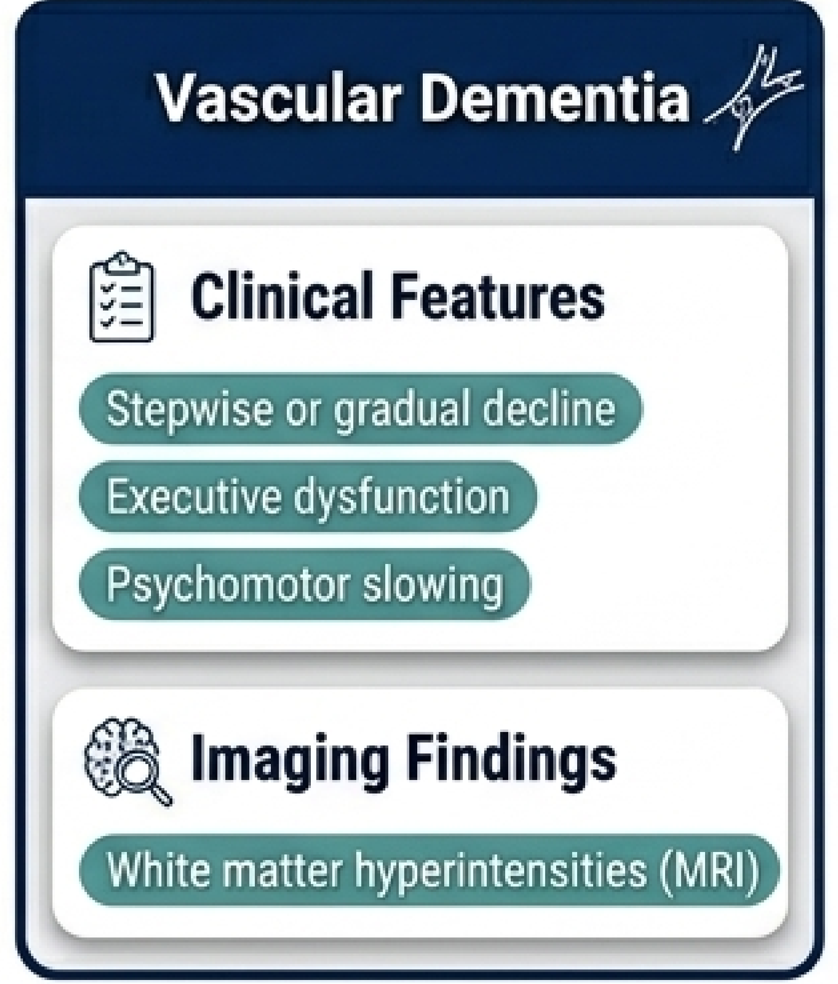
Alzheimer Disease (60-70%)

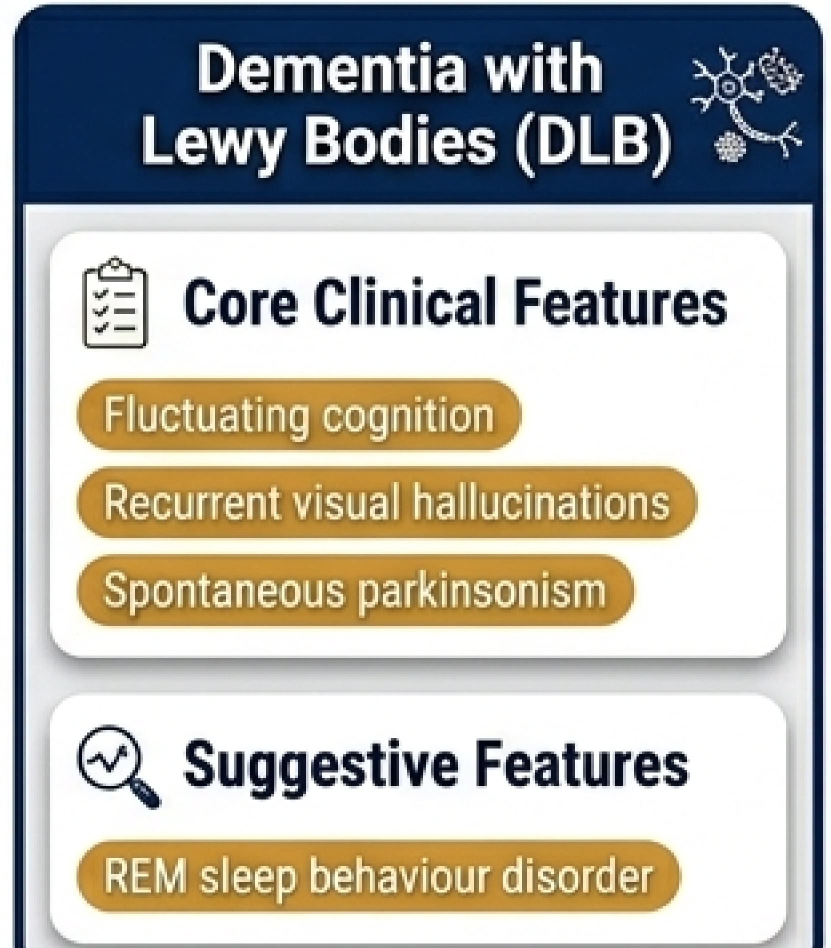
Vascular Dementia (15-20%) 

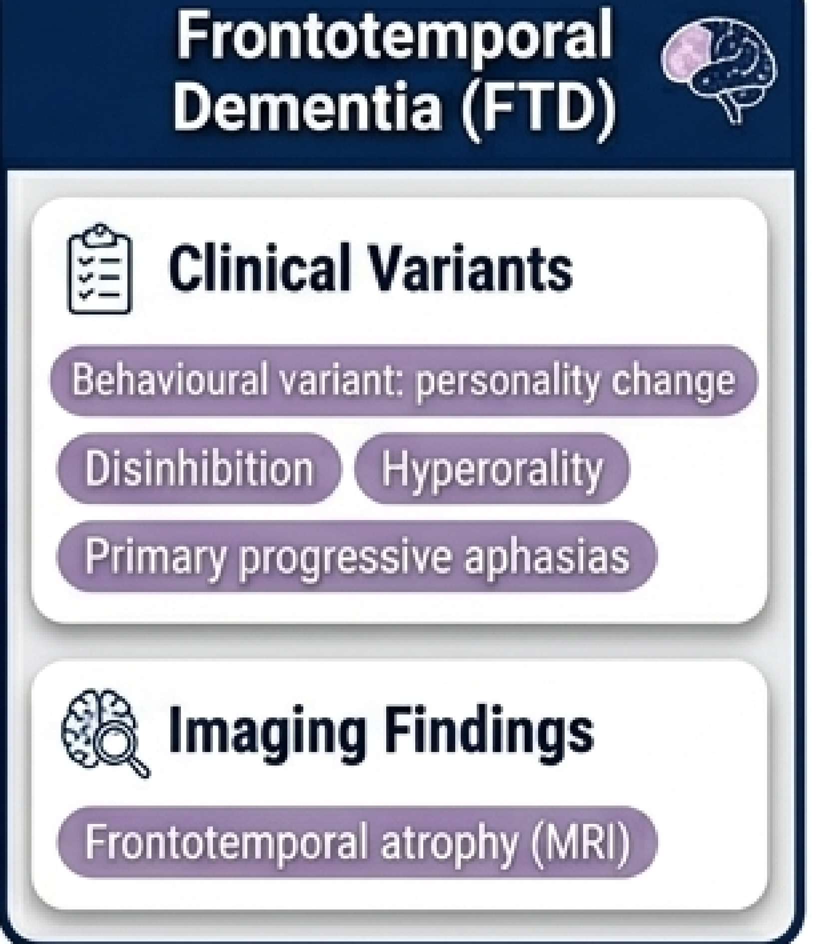
Lewy Body Dementia (5-10%)

Frontotemporal Dementia (5-10%)

Diagnostic Matrix & Clinical Presentation







CLINICAL ALERTS & PRESENTATION NUANCES

Severe Neuroleptic Sensitivity in DLB

Patients with DLB can experience life-threatening neuroleptic malignant syndrome and marked worsening of parkinsonism if given typical (haloperidol) or atypical (risperidone) antipsychotics.

Avoid completely | Haloperidol | Risperidone

antipsychoticaliness.

Use quetiapine under strict specialist guidance

FTD and Younger-Onset Presentations

Proportionally higher in those <65 years (up to 20-30% of FTD cases). Frequently negative on standard cognitive screens like MMSE, as memory is often preserved initially. MMSE negative

Misdiagnosed as psychiatric illness

Cholinesterase inhibitors ineffective and

Worsen behavioural symptoms

COGNITIVE IMPAIRMENT DIFFERENTIAL: PSEUDODEMENTIA VS. NEURODEGENERATION

Depression-Related Cognitive Impairment (Pseudodementia)

Subacute onset | History of prior depressive episodes

Clinical Presentation

Patient highlights and complains extensively about memory loss. Often replies 'I don't know' to questions but performs poorly on effort. Affect is flat or tearful. High distress over cognitive failures.

Screen with Geriatric Depression Scale (GDS-15 ≥5). Treat mood and reassess cognition at 8-12 weeks.

True Neurodegeneration

Insidious onset | Gradual decline

Clinical Presentation

Patient often minimizes difficulties or is genuinely unaware of deficits. Frequently confabulates or tries to cover up mistakes. Shows less overt distress regarding the cognitive failure itself.

The Informant Interview

- **Assess Basic ADLs** (self-care, dressing)
- **Assess Instrumental ADLs** (finances, driving, medications)
- **Document timeline, trajectory, and behavioural changes**

Anticholinergic Cognitive Burden Scale

Safe Alternatives

Corticosteroids

Anticonvulsants (Topiramate)

Anticholinergics (Oxybutynin, Amitriptyline)

Benzodiazepines (Diazepam)

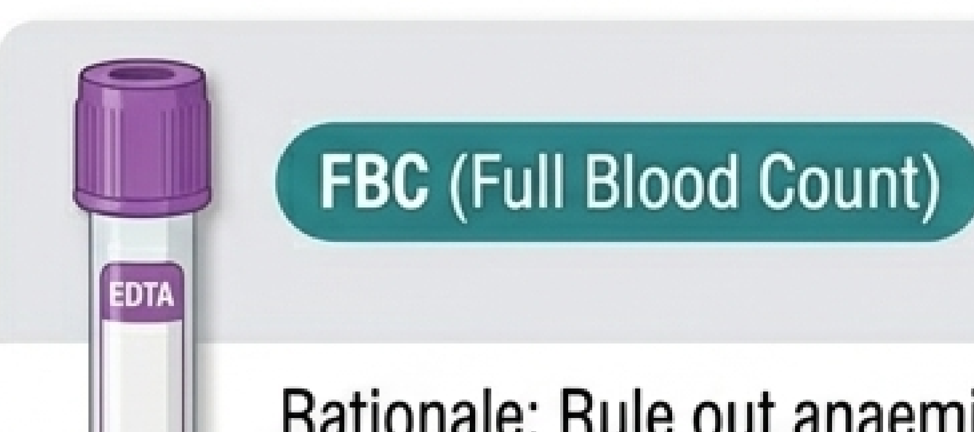
Opioids

Low Burden — Moderate Burden — High Burden

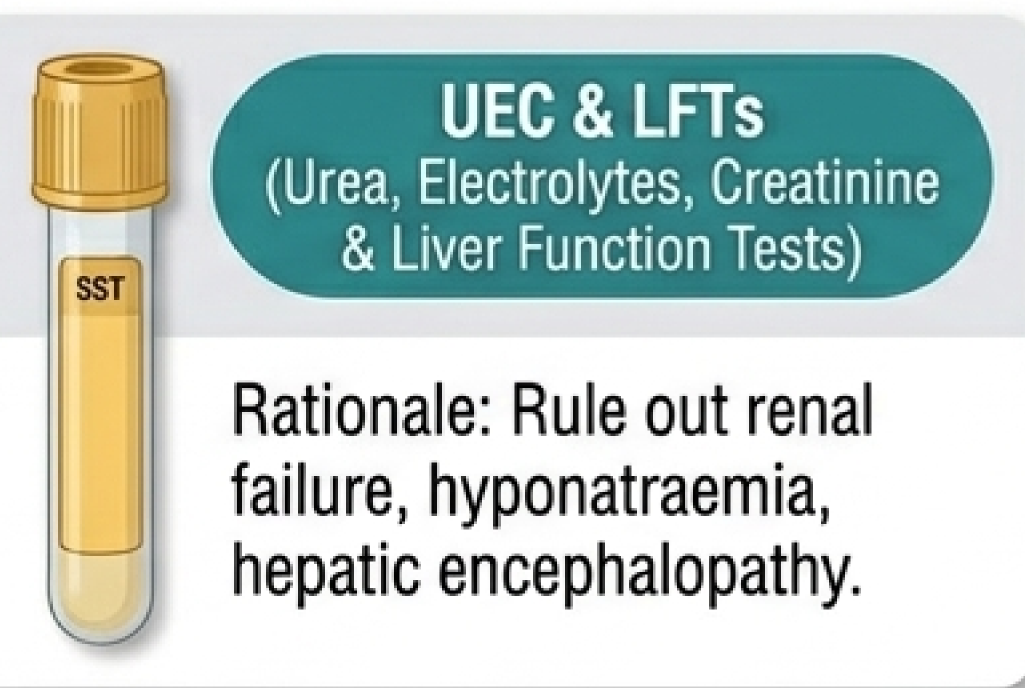
Deprescribing is Mandatory. Identify and taper high-burden medications.

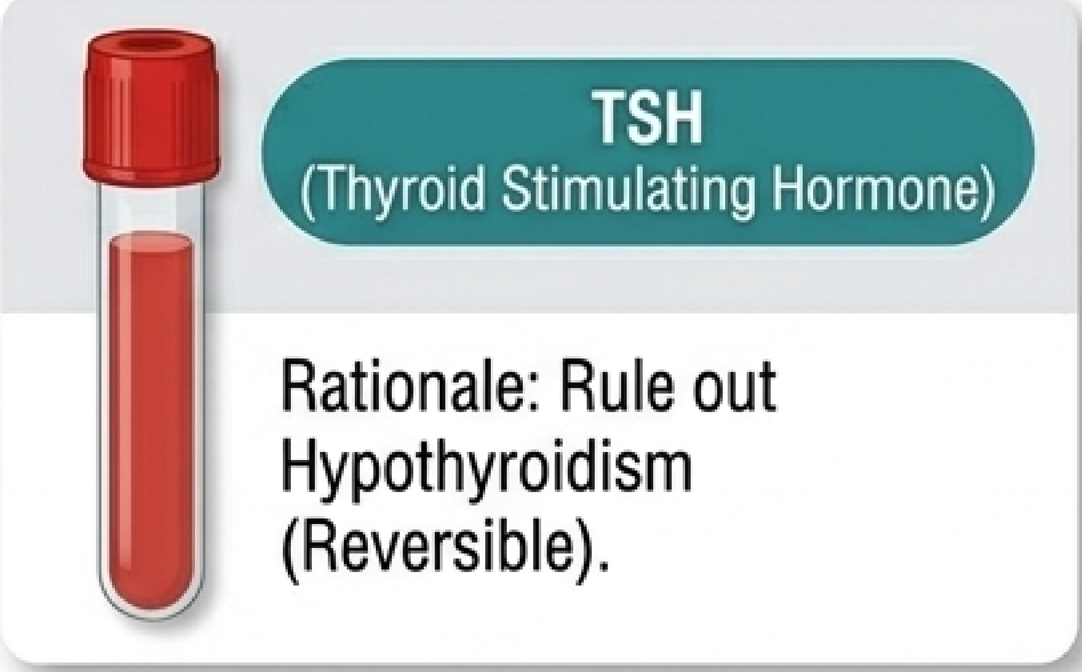
COGNITIVE IMPAIRMENT DIFFERENTIAL: LABORATORY WORKUP

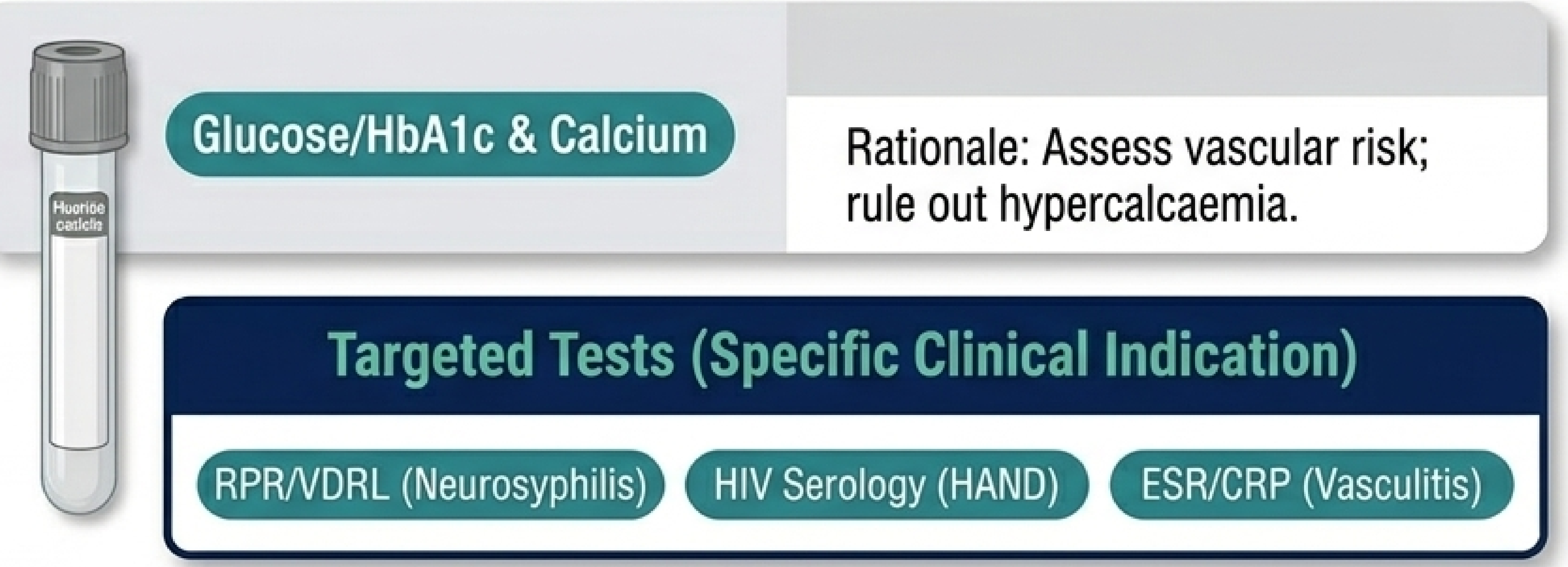
REVERSIBLE & TREATABLE CAUSES SCREEN



Rationale: Rule out anaemia, macrocytosis, infection.







COGNITIVE IMPAIRMENT DIFFERENTIAL: NEUROIMAGING ASSESSMENT

CT Brain (Non-contrast)

Primary Care Baseline

Adequate for excluding space-occupying lesions, hydrocephalus, subdural haematomas, and large infarcts (MBS Item 56000).

MRI Brain (Preferred)

Structural Detail

Superior for assessing Medial Temporal Atrophy (MTA scale for AD) and White Matter hyperintensities (Fazekas scale for Vascular). Requires specialist referral.

FDG-PET / Amyloid PET

Metabolic / Pathological Profiling

Shows frontotemporal hypometabolism (FTD) or temporoparietal (AD).

Detects amyloid plaque burden to confirm AD pathology.

DAT-SPECT (DaTSCAN)

Receptor Imaging

Shows reduced dopamine transporter uptake in putamen.

Used specifically to distinguish Dementia with Lewy Bodies (DLB) from Alzheimer Disease.

COGNITIVE IMPAIRMENT: NON-PHARMACOLOGICAL INTERVENTIONS

Cognitive Stimulation Therapy

Level A evidence group programme involving themed activities to stimulate thinking, concentration, and memory. Focuses on maintaining cognitive function.

Physical Exercise

≥150 mins/week of aerobic and resistance training.

Improves cognition, reduces BPSD, and slows functional decline. Promotes overall well-being.

Music Therapy

Personalised playlists and structured sessions significantly reduce agitation, anxiety, and depression. Enhances mood and engagement.

Environmental Modification

Simplify the environment, use visual cues, ensure adequate lighting, and maintain consistent daily routines. Reduces confusion and falls risk.

Carer Skills Training

Equip carers with communication strategies and behavior management techniques (e.g., Dementia Australia's Living with Dementia). Reduces carer burden.

Occupational Therapy

Functional assessment, activity adaptation, assistive technology, and home modification via My Aged Care. Maximizes independence.

CHOLINESTERASE INHIBITORS (ChEIs): PBS AUTHORITY REQUIRED FOR MILD-TO-MODERATE AD

Donepezil

5mg nocte → 10mg

Hepatically Cleared

No renal adjustment required. Key side effects include nausea, diarrhoea, bradycardia, and vivid dreams.

Rivastigmine

1.5mg BD → 6mg BD

Transdermal Patch Available

Patch formulation (4.6mg → 9.5mg/24h) offers better GI tolerability. Also indicated for Parkinson Disease Dementia.

Galantamine

4mg BD → 12mg BD

Renal Cautions

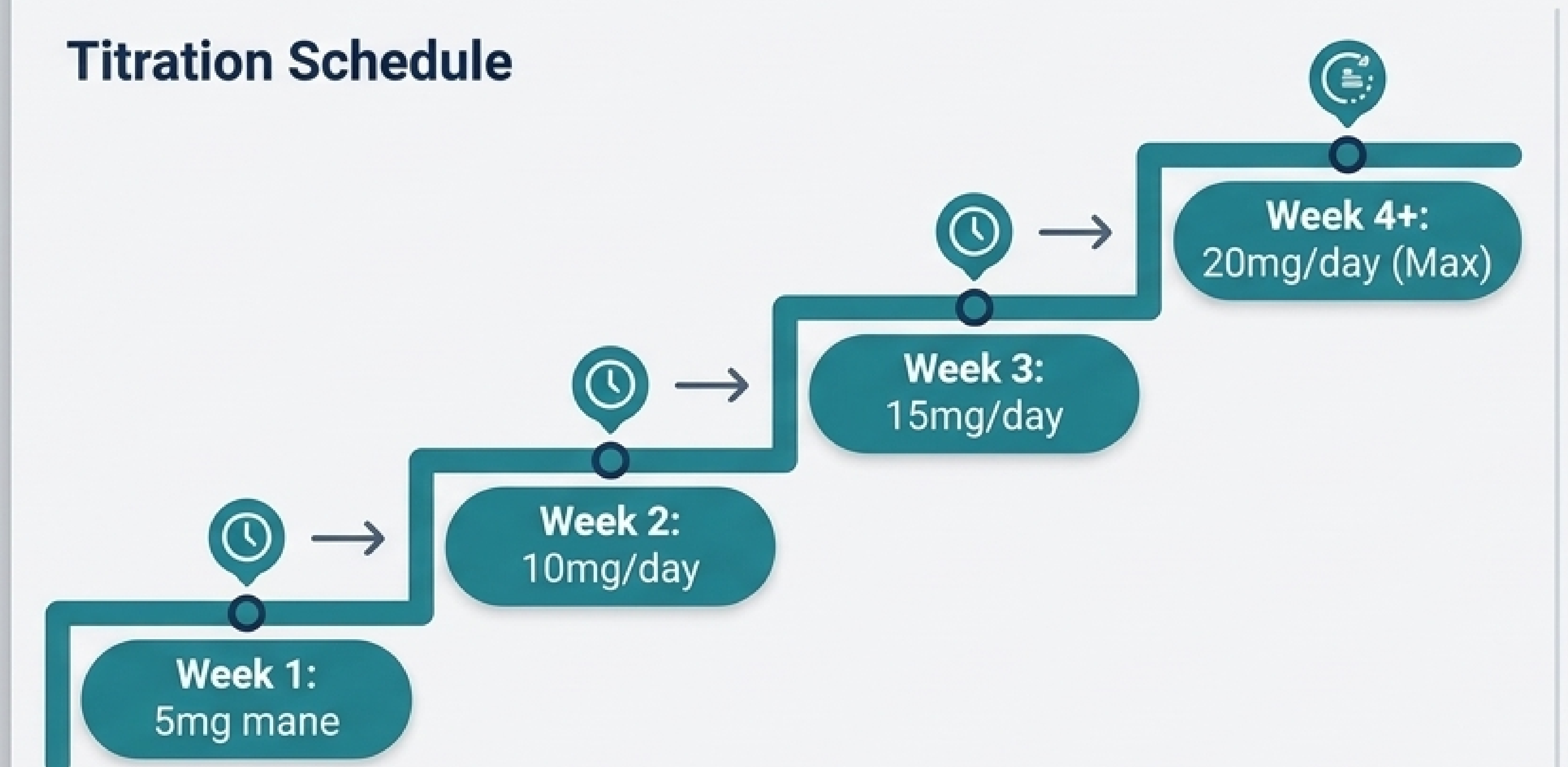
Avoid in severe renal impairment (eGFR <30). Watch for CYP2D6 and CYP3A4 drug interactions.

RULE OF THUMB: Start low, go slow. Prescribe with food to minimize GI side effects. Ineffective in bvFTD.

Memantine (NMDA Receptor Antagonist)

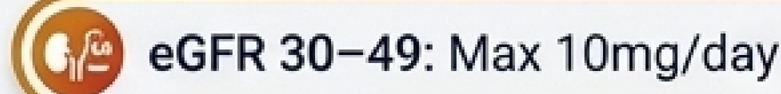
Indication: Moderate-to-severe AD (**PBS Authority Required**). Monotherapy or combined with ChEI.

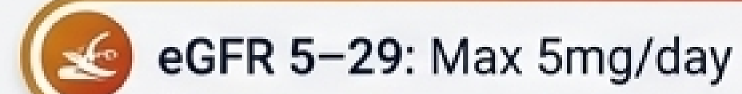
Titration Schedule



Renal Adjustments & Tolerability

Renally cleared. Dose reduction essential to prevent toxicity.

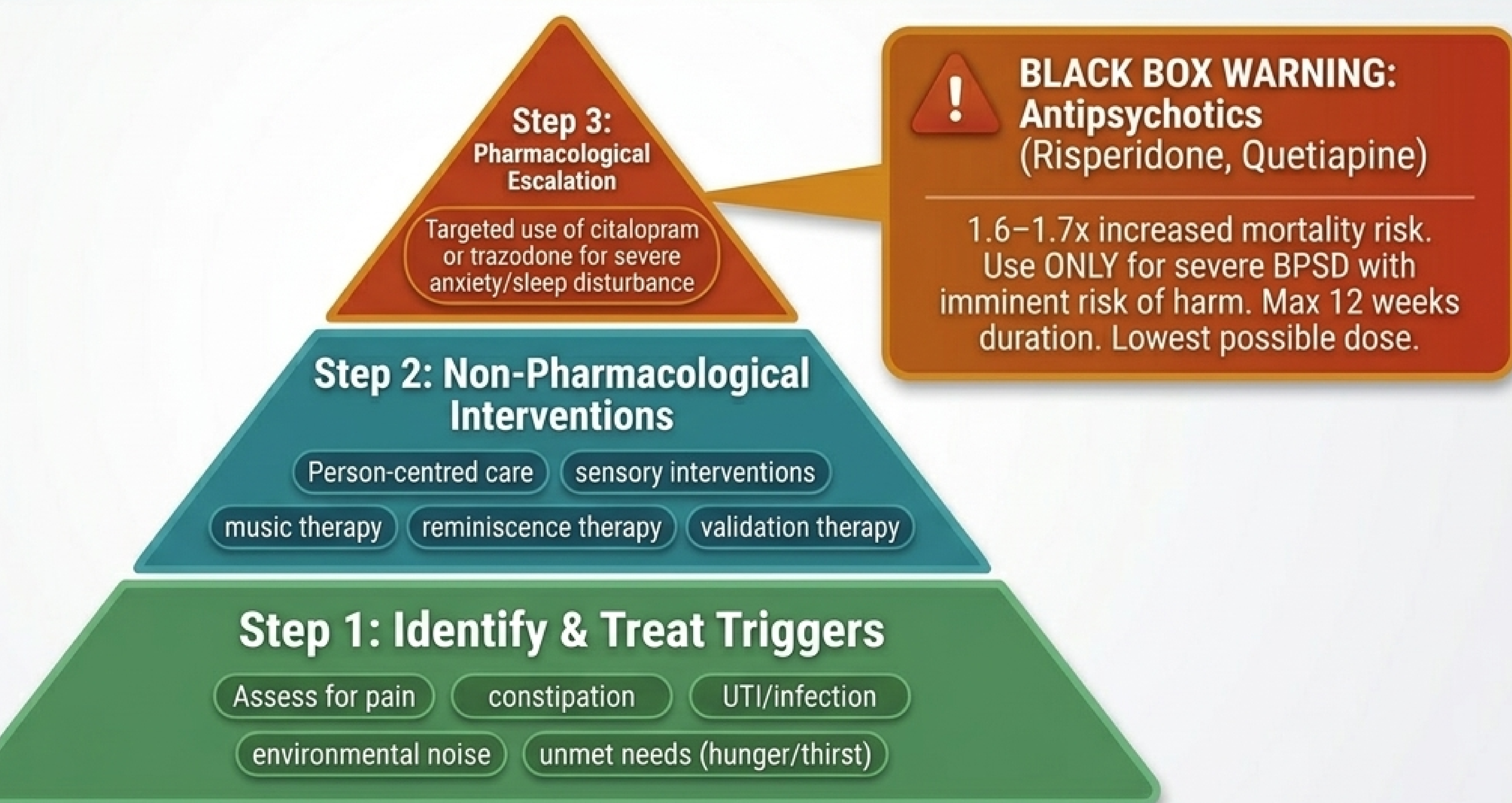




eGFR <5: Avoid completely

Fewer GI side effects than ChEIs. Watch for dizziness, headache, and somnolence.

BEHAVIORAL & PSYCHOLOGICAL SYMPTOMS OF DEMENTIA (BPSD) MANAGEMENT: STEPPED APPROACH



FOR EDUCATIONAL USE ONLY

THE DRIVING MANDATE

AUSTROADS GUIDELINES:
All patients diagnosed with dementia must legally cease driving.

ACTION STEPS:
Advise patient and family, document discussion clearly in notes, advise transport authority notification.

IF DIAGNOSIS IS UNCERTAIN OR EARLY MCI:
Refer for formal Occupational Therapy driving assessment.

HOME SAFETY & ENVIRONMENTAL MODIFICATIONS

KITCHEN SAFETY:
Auto-shutoff stoves, hot water temperature limiters (50°C).

EXITS & WANDERING:
Door alarms, GPS tracking devices (Safe Return program) for wandering risk.

FALLS PREVENTION:
Comprehensive falls risk assessment, grab rails, removal of trip hazards.

MEDICATION MANAGEMENT:
Webster-paks or dosette boxes for secure medication management.

DEMENTIA SUPPORT NETWORK & ADVANCE CARE PLANNING

COMMUNITY RESOURCES & LEGAL FRAMEWORKS FOR DEMENTIA CARE

DEMENTIA AUSTRALIA

- 1800 100 500
- Living with Dementia program
- Counselling & Advocacy
- Carer mental health screening (Zarit burden interview).

MY AGED CARE

- 1800 200 422
- Home Care Packages
- Centre-Based Day Respite
- Residential Respite & Care.

ADVANCE CARE PLANNING

- Initiate early while capacity remains
- Appoint Enduring Power of Attorney (financial)
- Appoint Enduring Guardian (health)
- Register Advance Care Directive.

ABORIGINAL & TORRES STRAIT ISLANDER HEALTH & CULTURALLY SAFE CARE

ABORIGINAL & TORRES STRAIT ISLANDER HEALTH

RISK FACTORS & ACTION

High prevalence of modifiable cardiovascular risk factors (diabetes, hypertension, RHD).

Use Close the Gap PBS Co-payments.

CULTURALLY SAFE CARE

ASSESSMENT TOOLS:

Use KICA (Kimberley Indigenous Cognitive Assessment) or RUDAS.

Avoid standard Western cognitive tests that may contain cultural or educational bias.

CLINICAL APPROACH:

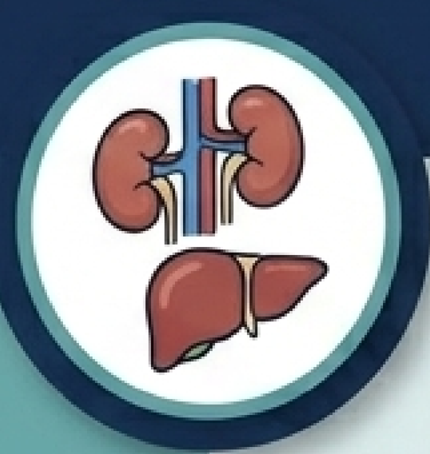
Utilize MBS Item 715 (Health Assessments) annually.

Engage Aboriginal Health Workers and liaison officers.

COMMUNITY CARE:

Support keeping Elders on Country rather than institutional care, which may be culturally inappropriate.

SPECIAL CONSIDERATIONS FOR COMPLEX CASES



RENAL & HEPATIC IMPAIRMENT

Donepezil preferred in renal impairment.

Reduce Memantine strictly in severe CKD.

Assess for uraemic or hepatic encephalopathy as reversible cognitive factors.

IMMUNOCOMPROMISED PATIENTS

Screen for HIV-associated neurocognitive disorder (HAND).

Monitor for progressive multifocal leukoencephalopathy (PML) or CNS infections in transplant or autoimmune patients.

PREGNANCY & YOUNGER ONSET

Category B3.

Cholinesterase inhibitors and Memantine are not recommended.

Provide genetic counselling for autosomal dominant familial dementias.

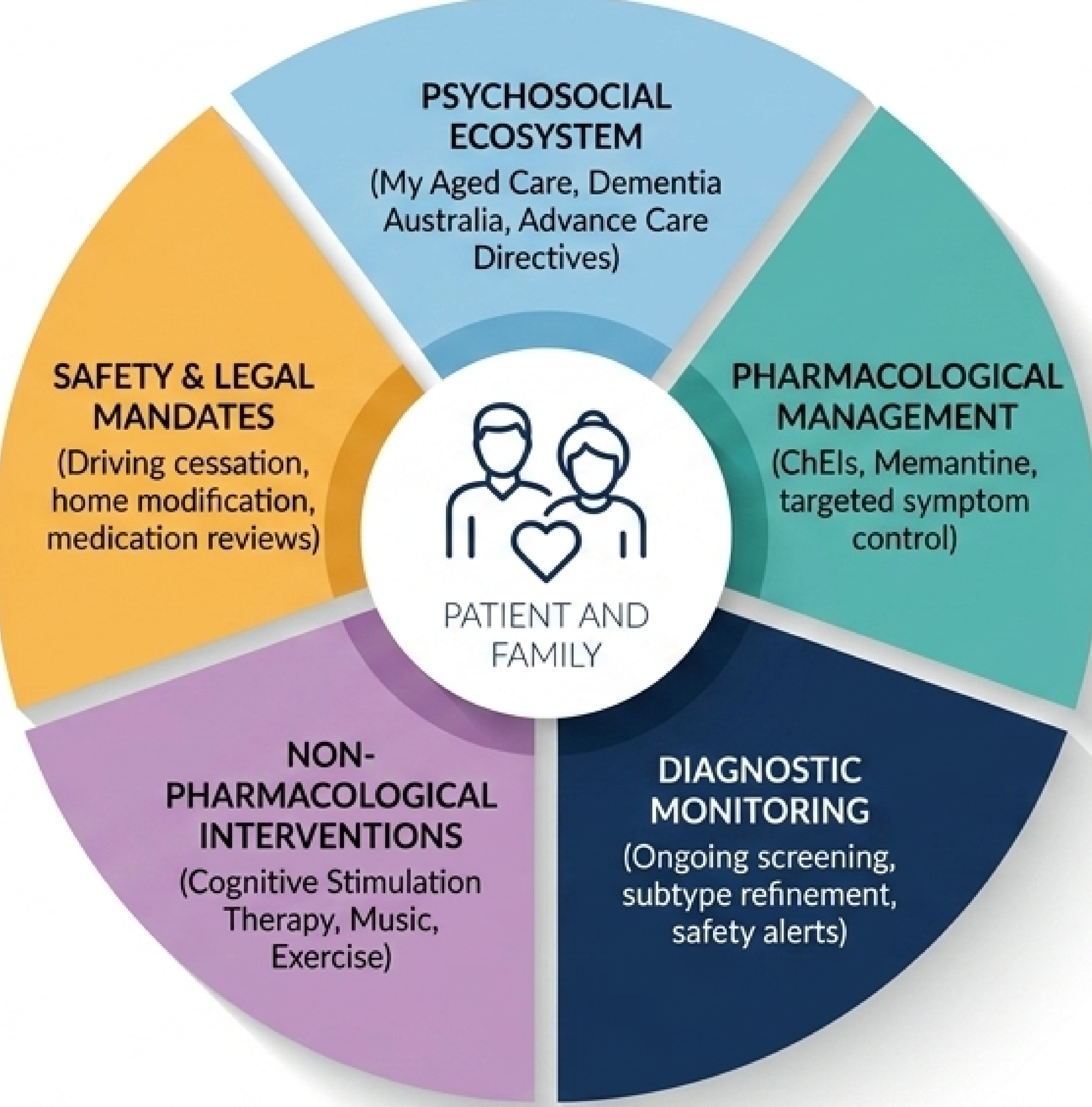
PAEDIATRIC DEMENTIA

Extremely rare (e.g., lysosomal storage disorders).

Requires urgent paediatric neurology referral.

Standard adult dementia medications are not routinely indicated.

DEMENTIA CARE ECOSYSTEM: COMPREHENSIVE, PATIENT-CENTRED MANAGEMENT



DEMENTIA CARE EXTENDS FAR BEYOND A PRESCRIPTION. THE CLINICIAN'S ROLE IS TO ACT AS THE ARCHITECT OF A COMPREHENSIVE, PATIENT-CENTRED ECOSYSTEM.