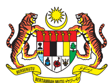
QUICK REFERENCE
FOR HEALTHCARE PROVIDERS

MANAGEMENT OF

DEMENTIA

THIRD EDITION



Ministry of Health Malaysia

Malaysian Psychiatric Association

Malaysian Society of Geriatric Medicine

Academy of Medicine Malaysia

KEY MESSAGES

1. Dementia is a syndrome that affects memory, thinking, orientation, calculation, learning, language, judgement, emotion, social behaviour or motivation. It is not a part of normal ageing process.
2. Dementia is caused by a combination of genetic & environmental factors & has modifiable & non-modifiable risk.
3. Risk reduction strategies should be advocated to reduce the risk of developing cognitive decline &/or dementia.
4. Diagnosis of dementia should be made using criteria from Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) or the International Classification of Diseases, Tenth Revision (ICD-10). The process should consist of detailed history & physical examination, & supported by cognitive, functional & behavioural evaluation.
5. Non-pharmacological interventions should be the mainstay of treatment in people with dementia (PWD) throughout all stages of the condition.
6. Pharmacological interventions may be offered according to different aetiology & severity of dementia.
7. The use of various medications in dementia should be done cautiously with regular review of its indication & potential adverse effects, & deprescribed when necessary.
8. Behaviour & psychological symptoms are common among PWD & should be addressed accordingly.
9. Caregivers should be actively involved & supported in the management of dementia.
10. The issues of palliative care & advance care planning should be addressed early while PWD still possess adequate decision-making capacity.

This Quick Reference provides key messages & a summary of the main recommendations in the Clinical Practice Guidelines (CPG) Management of Dementia (Third Edition).

Details of the evidence supporting these recommendations can be found in the above CPG, available on the following websites:
Ministry of Health Malaysia: www.moh.gov.my
Academy of Medicine Malaysia: www.acadmed.org.my
Malaysian Psychiatric Association: https://www.psychiatry-malaysia.org
Malaysian Society of Geriatric Medicine: https://msgm.com.my

CLINICAL PRACTICE GUIDELINES SECRETARIAT
Malaysian Health Technology Assessment Section (MaHTAS)
Medical Development Division, Ministry of Health Malaysia
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Federal Government Administrative Centre 62590
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RISK FACTORS

Non-Modifiable Risks	Modifiable Risks
• **Advancing age:** Age ≥65 years is a risk factor for any dementia • **Gender:** Female has higher risk of dementia especially in Alzheimer's Disease (AD) • **Genetic**	• **Cardiovascular disease** - hypertension - diabetes mellitus - high serum cholesterol - obesity • **Psychiatric illness** - depression • **Lifestyle** - smoking - alcohol consumption - physical inactivity - poor social engagement • **Environment** • **Others** - low early life education level - hearing impairment - traumatic brain injury

RISK REDUCTION STRATEGIES

- Risk reduction strategies recommended for cognitive decline &/or dementia are:
  - physical activity
  - tobacco cessation
  - interventions for alcohol use disorders
  - management of hypertension
  - management of diabetes

Other interventions that may be considered are:

- weight management
- management of dyslipidaemia
- nutritional interventions
- social activities
- cognitive interventions
- management of depression
- management of hearing loss

ASSESSMENT & DIAGNOSIS

The evaluation of dementia should be targeted at patients who present with memory complaints (by patients themselves &/or carer), have clinical suspicion of cognitive impairment or are at increased risk for dementia as well as elderly patients who have questionable mental capacity.

When the initial evaluation is suggestive of dementia, patients need to be referred to specialist services for further assessment & confirmation of diagnosis.

Clinical assessment should include cognitive & non-cognitive domains. Recommended assessment tools are as shown below:

Cognitive	Non-Cognitive
• AD8 Dementia Screening Interview • Informant Questionnaire on Cognitive Decline in the Elderly (IQCODE) • Mini-Cog • Abbreviated Mental Test Score (AMTS) • Mini-Mental State Examination (MMSE) • Montreal Cognitive Assessment (MoCA) • Addenbrooke's Cognitive Examination-III (ACE-III) • Visual Cognitive Assessment Test (VCAT) • Saint Louis University Mental Status (SLUMS)	• Neuropsychiatric Inventory (NPI) • Behavioral Pathology in Alzheimer's Disease Rating Scale (BEHAVE-AD) • Cornell Scale for Depression in Dementia (CSDD) • Montgomery-Asberg Depression Rating Scale (MADRS) • Geriatric Depression Scale (GDS) • Disability Assessment for Dementia (DAD) • Bristol Activities of Daily Living Scale (Bristol ADL) • Zarit Burden Interview (ZBI, 22-item version)

DIAGNOSTIC AND STATISTICAL MANUAL OFMENTAL DISORDER FIFTH EDITION (DSM-5)

Diagnostic criteria for major neurocognitive disorder (or dementia)

A. Evidence of significant cognitive decline from a previous level of performance in one or more cognitive domains (complex attention, executive function, learning & memory, language, perceptual-motor or social cognition) based on:
   1. Concern of the individual, a knowledgeable informant or the clinician that there has been a significant decline in cognitive function; &
   2. A substantial impairment in cognitive performance, preferably documented by standardised neuropsychological testing or in its absence, another quantified clinical assessment.

B. The cognitive deficits interfere with independence in everyday activities (that is, at a minimum, requiring assistance with complex instrumental activities of daily living such as paying bills or managing medications).

C. The cognitive deficits do not occur exclusively in the context of a delirium.

D. The cognitive deficits are not better explained by another mental disorder. Specify:
   - Without behavioural disturbance: if the cognitive disturbance is not accompanied by any clinically significant behavioural disturbance.
   - With behavioural disturbance (specify disturbance): if the cognitive disturbance is accompanied by a clinically significant behavioural disturbance (for example, psychotic symptoms, mood disturbance, agitation, apathy or other behavioural symptoms). For example, major depressive disorder or schizophrenia.

The severity of dementia can be staged according to functional status according to DSM-5 as shown below.

Severity	Functional Status
Mild	Difficulties with instrumental activities of daily living (e.g. housework, managing money)
Moderate	Difficulties with basic activities of daily living (e.g. feeding, dressing)
Severe	Fully dependent

Non-Pharmacological Treatment	Pharmacological Treatment		Caregiver Support
	Cognitive	BPSD	
Cognition & Quality of life (QoL) • Cognitive stimulation therapy • Physical activity **Behaviour & Psychological Symptoms of Dementia (BPSD)** • Address causes & triggering factors • Psychological intervention • Personalised & tailored activity	**AD** **All severity:** • Donepezil **Mild – moderate:** • Rivastigmine **Moderate – severe:** • Memantine ± acetylcholinesterase Inhibitors (AChEI) **Vascular Dementia** • AChEI or memantine **Lewy Body Disease** • Rivastigmine or donepezil	**Antipsychotics** • Use at lowest effective dose • Shortest possible duration • Reassessed regularly • Wean off if not needed **Antidepressants** • Agitation • Pre-existing severe depression & anxiety	Assess for caregiver burden **Multicomponent intervention:** • Respite care • Carer training - Psychoeducation - Communication skills • Spirituality & religious support
Potentially Inappropriate Prescriptions (PIP) • Examples of PIP/psychotropics are: first-generation antihistamines (e.g. chlorpheniramine, hydroxyzine), antipsychotics, benzodiazepines (e.g. alprazolam, diazepam, midazolam), hypnotics (e.g. zolpidem, zopiclone) • Use cautiously with regular review of indication & deprescribed whenever possible.			

- For PWD who require regular medication, the '3T' approach is a good practice:
  - treatment should have a specific target symptom
  - starting dose should be low & then titrated upwards
  - treatment should be time limited

ETHICAL & LEGAL ISSUES

- If there is any doubt regarding PWD's decision-making capacity, a formal assessment should be carried out.
- A doctor should comply with a PWD's unequivocal written directive to refuse a particular treatment if that decision was made while the PWD had mental capacity.

PALLIATIVE & END-OF-LIFE CARE

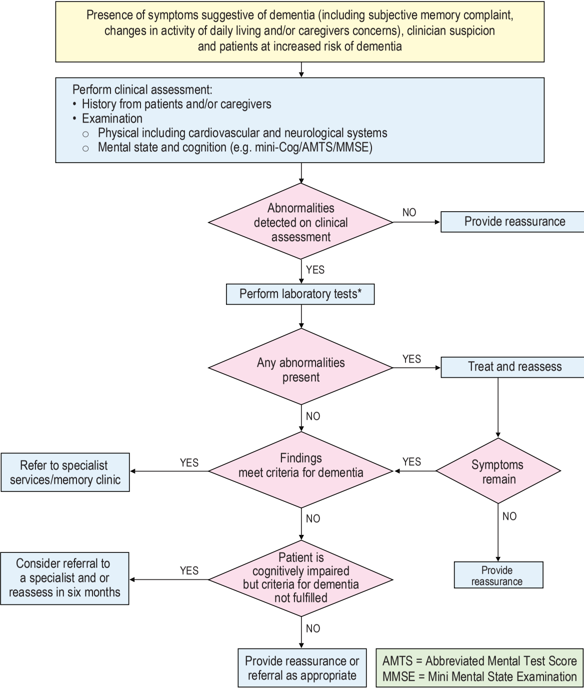
As dementia is a progressive & irreversible illness which can affect the QoL for PWD & their caregivers, palliative care should be initiated at the time of diagnosis throughout different stages of illness. The best supportive care should be offered to them based on their preference & the principles of basic medical ethics. The components on palliative care include:

a. choice of artificial nutrition & hydration
b. management of pain
c. avoidance of restraints
d. advance care planning

REFERRAL

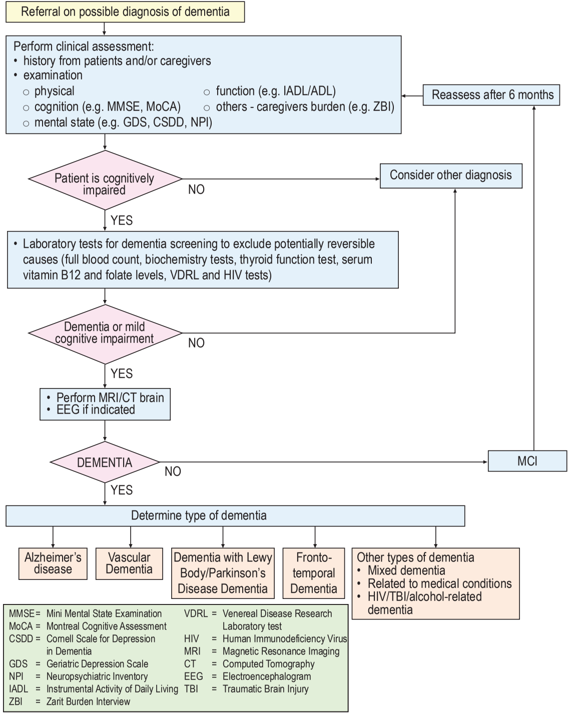
- All patients with suspected dementia should be referred to a geriatric psychiatrist/psychiatrist, geriatrician or neurologist for assessment, diagnosis & management

ALGORITHM 1: EARLY DETECTION OF DEMENTIA

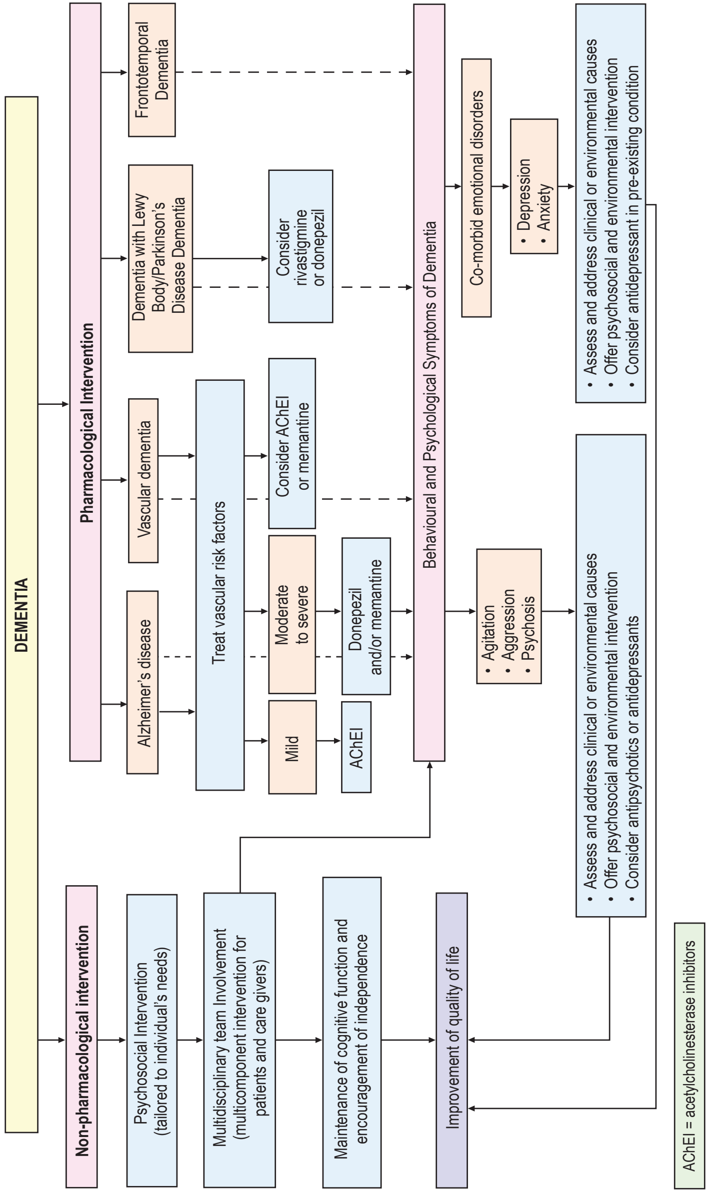


*Refer to **Chapter 3** on **Diagnosis and Assessment** in CPG

ALGORITHM 2: DIAGNOSIS OF DEMENTIA



ALGORITHM 3: TREATMENT OF DEMENTIA



MEDICATIONS USED FOR THE TREATMENT OF DEMENTIA

Drug	Starting Dose	Maximum Dose	Adverse Effects
Acetylcholinesterase Inhibitors			
Donepezil	5 mg once daily	10 mg once daily	**Gastrointestinal (GI)**: diarrhoea, nausea, vomiting, decreased appetite, abdominal pain, dyspepsia **Central nervous system (CNS)**: insomnia, fatigue, drowsiness, falls **Cardiovascular system (CVS)**: chest pain, hypertension, syncope, bradycardia **Endocrine & metabolic**: weight loss **Local**: application site erythema (transdermal) **Neuromuscular & skeletal**: tremor
Rivastigmine	**Oral:** 1.5 mg twice daily **Transdermal patch:** 4.6 mg/24 hours	**Oral:** 6 mg twice daily **Transdermal patch:** 13.3 mg/24 hours	
	4 mg twice daily *If treatment interrupted >3 days, to restart at lowest dose	12 mg twice daily	
N-methyl-D-aspartate (NMDA) receptor antagonist			
Memantine	5 mg once daily	20 mg/day	**CVS**: hypertension **CNS**: dizziness, headache, fatigue, confusion **GI**: diarrhoea, constipation, vomiting **Genitourinary**: urinary incontinence **Neuromuscular & skeletal**: back pain **Respiratory**: cough, dyspnoea
NOTE: All these medications are currently OFF-LABEL based on Ministry of Health National Formulary & National Pharmaceutical Regulatory Agency			
Antipsychotics			
Aripiprazole	2 - 5 mg once daily	15 mg once daily For Lewy Body Disease: 5 mg/day	**CNS**: agitation, akathisia, drowsiness, extrapyramidal reaction, headache, sedation, insomnia, tremor, fatigue **CVS**: tachycardia, orthostatic hypotension **Endocrine**: increased serum low-density lipoprotein, triglyceride & cholesterol, increased serum glucose, increased serum prolactin **GI**: constipation, dyspepsia, increased appetite, nausea, vomiting **Miscellaneous**: weight gain, xerostomia
Olanzapine	2.5 mg once daily	10 mg/day	
Quetiapine	25 mg at bedtime	75 mg twice daily	
Risperidone	Initial: 0.5 mg/day in two divided doses	1 mg/day	

#Antipsychotics may require dosage adjustments in renal or hepatic impairment