Cognitive Impairment and Dementia

Case Definitions

Cognitive Impairment

May be due to **reversible causes** (e.g. delirium, medications, depression) or indicate **dementia**.

Mild Cognitive Impairment (MCI)

- Objectively assessed cognitive impairment
- Modest cognitive deficits that **generally do not impact on a person's capacity to function in daily life**
- Conditions such as Alzheimer's and cerebrovascular disease, pain, depression, polypharmacy or delirium can lead to MCI.
- Not static- can improve or decline with time.

*Note that MCI overlaps with the DSM-5 classification **Mild Neurocognitive Disorder**.*

Dementia

Dementia can occur in Aboriginal populations at 3 – 5 times the rate of other populations

- Progressive, non-reversible condition
- Encompasses disordered thinking, executive function and memory
- **Severe enough to interfere with a person's life** that is a change from previous levels
- Diagnosis should only be made after depression and delirium as causes for symptoms are excluded, although both commonly co-exist with dementia
- Most common causes are Alzheimer's disease and vascular dementia, although a mixture of varying pathologies are often present.

*The DSM-5 term for this condition is **Major Neurocognitive Disorder**.*

Risk Factors

Risk factors for cognitive impairment and dementia include;

- Impaired hearing
- Lower education levels
- Family history of dementia
- Smoking
- Depression
- Social isolation
- Traumatic brain injury
- Hypertension, ischaemic heart disease, atrial fibrillation
- Childhood trauma
- Physical inactivity
- Air pollution
- Diabetes
- Obesity
- Heavy alcohol consumption
- Cerebrovascular disease
- Epilepsy
- Psychosocial stressors
- Polypharmacy

A life-course approach is recommended to prevent or delay cognitive impairment or dementia.

Refer to *Healthy Lifestyle Protocol* and *Chronic Disease Protocols* (*Type II Diabetes*, *Hypertension*, etc.).

In addition, regular review of vision, hearing, social and emotional well-being (SEWB) and medications with potential cognitive side effects is recommended.

Case Finding

A case finding approach to detecting MCI and dementia is recommended in **Aboriginal and Torres Strait Islander patients 50 years and over.**

Case finding may be facilitated by:

- Assessing risk factors for dementia (see above)
- Asking questions about memory or thinking problems (e.g. do you have any worries about your memory? Does anyone in your family have any concerns about your memory or thinking?)
- Staff raising concerns (e.g. due to missed appointments, patient appearing vague, etc)
- Family or other community (members) raising concerns.

Always consider using an interpreter, and/or involving an Aboriginal Health Practitioner

Note, that especially in those under 50 years, other causes may need to be considered (e.g. brain injury).

Initial Assessment

When cognitive impairment is identified or suspected:

1. Use **cognitive screen** e.g. KICA-Screen (< 21/25 indicates possible dementia) or KICA-Cog (< 34/39 indicates possible dementia)
2. Take **collaborative history** from patient and family including onset and progression of symptoms, medications, other illnesses and associated behavioural and psychological symptoms (BPSD). See KICA-Carer within full KICA (> 2/16 suggest further investigation)
3. **General examination** including cardiovascular, neurological and gait assessment
4. Differentiate from **depression or delirium** (see Box 1, Table 1)
5. Review **medication list** and adherence
6. Standard **pathology tests:** FBC, UEC, LFT, calcium, magnesium, HbA1c, B12, thyroid function and syphilis serology
7. Conduct **CT brain** where possible
8. When cognitive impairment is confirmed or highly suspected consider **referral to a geriatrician or physician** for further assessment and management of comorbidities.

Kimberley Aboriginal Health Planning Forum

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Principles of Management

The diagnosis and management of cognitive impairment or dementia should be undertaken using a multidisciplinary approach.

General Measures

- Identify and manage **cerebrovascular risk factors and diabetes**
- **Review medications** and minimise or eliminate medications that can contribute to cognitive impairment e.g. oxybutynin (see Box 3)
- Consider **deprescribing** where medications may be of minimal benefit (e.g. PPI, statin), simplify dosages and monitor medication adherence
- Regular review of **vision, hearing and oral and dental health**
- **Advance Care Planning.**

Dementia Specific Care

- Monitor **SEWB and depression**
- Regular review of frequently associated conditions: **falls, incontinence, poor nutrition, chronic pain**
- Regular **review of function**: safety with ADLs, driving, finances
- Be alert to **Elder abuse**, including financial
- Monitor **carer health** and well-being
- Engage **multidisciplinary assistance** e.g. podiatry, dietetics, occupational therapy, physiotherapy, counselling for client and/or family and carers
- Consider **early referral** to My Aged Care or NDIS for community services and support and Aged Care Assessment (Kimberley Aged and Community Services (KACS))
- Consider referral to Alzheimer's WA or Carers WA for **carer information and support**
- **End of life care:** dementia is a life-limiting condition and is best supported by early preparation and planning. Measures to provide physical and psychosocial and spiritual support are important. Management of symptoms such as pain, swallowing difficulties, agitation and pressure sores need optimisation. Consider support by Kimberley Regional Physician Team (KRPT), visiting geriatrician and palliative care team (see contacts and referrals).

Therapeutic Protocols

Cholinesterase Inhibitors

Have a role in some circumstances of mild to moderate Alzheimer's disease or Dementia with Lewy Bodies (e.g. donepezil, galantamine, rivastigmine, memantine)

Their use requires specialist initiation by general physician (KRPT), geriatrician or psychogeriatrician (see referrals and contacts).

Antipsychotic Medications

Antipsychotic medications are associated with an increased risk of cardiovascular disease and deaths – **only use if benefits outweigh risks**.

For Behavioural and Psychological Symptoms of Dementia (BPSD) (see Box 2), **if non-pharmacological measures are not helpful, consider**:

- Risperidone 0.25mg daily (if no signs of parkinsonism)
    - Watch for side effects, in particular extrapyramidal syndrome, falls and increased confusion.
    - If risperidone ineffective, consider referral to specialist geriatrician or psychogeriatrician.
- Quetiapine 12.5mg twice daily and increasing slowly to a maximum dose of 100mg daily (if signs of parkinsonism or diagnosis of Dementia with Lewy Bodies).
- Review need for ongoing medications and aim for **time-limited use of 12 weeks or less**.

Antidepressant Medications

Antidepressants may be required as depression and anxiety are common features of dementia. **Start low and go slow!**

- Use an SSRI e.g. citalopram 10mg – 20 mg or mirtazapine 15mg – 45 mg (use Mirtazapine if night time sedation is desirable).
- Monitor for side effects including hyponatremia, falls, increased confusion, drowsiness.

Consider review by Kimberley Mental Health and Drug Service, geriatrician or Dementia Support Australia for symptoms that are not improving

See referrals and contacts

Follow Up

Dementia is ever changing. **Review the client regularly (at least 3 monthly)** to assess cognitive decline, changes in behaviour and for episodes of delirium or depression. Assess coping capacity of family, and review the need for medications, particularly antipsychotics.

GP management care plan recommendations for MCI and Dementia are available in MMEx.

Components of follow up include:

1. **Aged care assessment:** refer client or discuss aged care assessment, the need for support at home, and the need for respite care and longer term placement when required. Refer to My Aged Care to request KACS Aged Care Assessment Team (ACAT) assessment.
   Involve ACAT early, particularly with significant changes in circumstance. ACAT also provides information to families regarding dementia management and has education resources that can be made available to families.
2. **Confirm diagnosis and consider specialist review and**

management advice: this may include geriatrician review in person or via telehealth. KACS holds videoconferences with Royal Perth Hospital Department of Geriatric Medicine. Refer for specialist review via KACS.

3. **Assess for depression and BPSD** (see Box 2): if not responding to simple management measures consider referral to Kimberley Mental Health Team, Dementia Support Australia or refer to KACS for geriatrician or psychogeriatrician review (see referrals and contacts).
4. **Manage comorbid medical problems:** consider referral to Kimberley Regional Physician Team if not controlled in primary healthcare setting.
5. **Home medicines review:** consider referral to Pharmacy Services for medicines review.
6. **Provide education and information for clients and carers:** consider referral to KACS or Alzheimer's Australia WA.
7. **Help families plan for respite needs:** discuss alternatives/options that may be available locally – Carer Gateway.
8. **Community care:** consider need for assistance with personal care, day centre, transport, shopping, social support. There are Community Care services in each of the six main Kimberley towns. Remote communities can also operate their own services, enquiries via KACS.

Referrals and Contacts

BOAB Health: Tel: 08 9192 7888 Fax: 08 9192 7999 Email: reception@boabhealth.com.au, Referral forms

Dementia Australia: WA Support Services

Dementia Support Australia: Dementia Behavioural Advisory Service (24-hour helpline 1800 699 799)

Geriatrician / Psychogeriatrician: Refer via KACS Tel 08 9192 0339 Email: kacs@health.wa.gov.au with referral including clinical question, PHx, medications, investigation results. Geriatrician especially appropriate for undetermined cognitive diagnoses, Parkinson's disease, memory and behavioural problems, mobility and falls problems. Psychogeriatrician especially appropriate for undetermined mental health diagnoses, decisional capacity queries, psychiatric medications, challenging behaviours and exacerbation of mental health problems.

Kimberley Aged and Community Services (KACS): ACAT Tel: 08 9192 0333 Email: kacs@health.wa.gov.au

Kimberley Mental Health and Drug Service (KMHDS): Tel: 08 9194 2640 Email: KMHDSClinic.Reception@health.wa.gov.au

Kimberley Regional Physician Team (KRPT): Refer via local specialist centre or via eReferral. Contact via Broome Hospital; Tel: 08 9194 2222; MMEX message KRPT; or Email: KRPT@health.wa.gov.au

Kimberley Palliative Care Service (24hr service): Tel: 08 9194 2325 Mobile: 0434 181 044 Fax: 08 9194 2899 Email: KHR.PalliativeCare@health.wa.gov.au
eReferral Form
Medical Advisory, on-call Palliative Care Specialist: 1300 558 655

Kimberley Pharmacy Services (KPS): Tel: 9192 3611 Email: kps@kimberleypharmacyservices.com.au

Resources

GP Management Plans for dementia prevention and management available through MMEX

KICA Resources (including KICA-Cog, KICA-Screen, KICA-Carer and KICA-Dep)

The Adapted Patient Health Quality Questionnaire (aPHQ-9) – a nine-item culturally adapted and validated screening tool for depression in Aboriginal and Torres Strait Islander Australians

Behaviour management: A guide to good practice. Managing behavioural and psychological symptoms of dementia

Taking control of your health journey, Advance Care Planning Australia

Dying to Talk: Aboriginal and Torres Strait Islander Discussion Starter

WA Dept. Communities Elder Abuse Information Department of communities support for older Western Australians affected by social, physical, sexual, psychological, emotional or financial abuse

National Redress Scheme Support for those who have experienced institutional abuse

Box 1. Delirium and Dementia

Delirium: Acute onset, fluctuating course with reduced awareness and disordered thinking. There may be associated delusions or hallucinations and sleep-wake disorientation. Acute underlying illness or trigger is present. Hypoactive delirium is common and impacts on function.

Depression: Occurs over weeks to months, with symptoms typically worse in the morning. Presents with poor concentration, with themes of hopelessness. There may be associated mood-congruent delusions and early morning awakening. Prior history is common.

Table 1. Comparing Delirium, Dementia and Depression

Clinical feature	Delirium	Dementia	Depression
Onset	Sudden / abrupt	Insidious / slow, usually unrecognised	Variable
Course	Short with diurnal fluctuations in	Chronic and progressive	Variable, symptoms typically

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	symptom-aetiology		worse in the early morning
Progression	Abrupt	Protracted	Variable
Consciousness	Altered	Clear except in severe cases	Clear
Attention	Impaired; fluctuates	Initially normal	Generally normal
Orientation	Generally impaired, severity varies	Generally normal (may be impaired in vascular dementia or advanced stage dementia)	Selective dis-orientation
Memory	Recent and immediate impaired	Recent and remote impaired	Selective impairment
Thinking	Disorganised, incoherent	Difficulty with abstraction, thoughts impoverished	Intact with themes of hopelessness and helplessness
Perception	Mis-perceptions common with illusions, hallucinations and delusions	Mis-perceptions usually absent	Intact
Psychomotor behaviour	Variable: hypokinetic, hyperkinetic, and mixed	Generally normal	Variable
Assessment	Distracted from task; numerous errors	Struggles with assessment to find appropriate reply	Generally lacks motivations, frequent "don't know" answers

Box 2. Behavioural and Psychological Symptoms of dementia (BPSD)

Common symptoms (up to 90% of people with dementia display one form of BPSD during the course of their illness), causing distress to those with the condition and their family and carers.

Anxiety, agitation, depression, hallucinations, and delusions occur frequently.

Other features such as **wandering shouting, pacing, insomnia, apathy** are less likely to respond to medications.

Non-pharmacological measures should always be trialled first after possible contributing factors (such as delirium, pain, medication adverse effects etc.) are excluded.

These may include orientation, exercise, social groups, music therapy and others.

A search for a trigger to the behaviour and a trial of possible strategies to alleviate the symptom is important.

See Therapeutic Protocols above if above measures are not useful and the behaviour is causing distress to patient or impacting on safety. Be aware of significant adverse effects of antipsychotics and limited evidence of their efficacy.

Box 3. Medications that can potentially cause confusion

Analgesics – predominantly opioid medications (e.g. Tapentadol, Oxycodone, tramadol)
Antihistamines (e.g. Promethazine, Cyclizine)
Anticholinergics/Antispasmodics (e.g. atropine, hyoscine)
Antivertigo/ antiemetics (metoclopramide, prochlorperazine)
Tricyclic Antidepressants (e.g. dothiepin, imipramine, amitryptiline)
Gastroenterology (H2 antagonists)
Bladder antimuscarinics (e.g. oxybutinin)
Skeletal muscle relaxants (e.g.baclofen
Antipsychotics (e.g.olanzapine)
Anti-Parkinson medications (e.g. L-Dopa, amantadine, pramipexole)
Sedatives (e.g. benzodiazepines)