1 Care map information

Quick info:

Scope:
- diagnosis, assessment, and management of dementia, including:
  - Alzheimer’s disease (AD)
  - vascular dementia
  - dementia with Lewy bodies (DLB)

- diagnosis and assessment of:
  - frontotemporal dementia (FTD; Pick's disease)
  - mixed dementias
  - mild cognitive impairment

- pharmacological and non-pharmacological aspects of management including:
  - social care
  - person-centred care
  - palliative care and advance planning

- assessment and management of co-morbid emotional disorders
- recommendations and support for carers

Out of scope:
- management of FTD (Pick's disease)
- dementia due to other medical causes, eg:
  - HIV
  - Parkinson's disease
  - head trauma
  - alcohol-related brain damage (alcohol-related dementia)

Definition:
- dementia is a progressive and largely irreversible clinical syndrome that is characterised by widespread impairment of mental function [1]
- associated with a decline in activities of daily living and impairment in social function [1]
- is often preceded by mild cognitive impairment, eg subtle problems with day to day memory, planning, language, attention [2]

Aetiology:
- most common causes are [1]:
  - AD:
    - usually insidious in onset
    - develops slowly but steadily over several years
    - predominantly affects older people
  - vascular dementia:
    - due to small vessel disease or multiple infarcts
    - often follows a fluctuating course and may follow a stepwise pattern (although not necessarily) [2,3] – onset can be gradual in people with subcortical ischaemic vascular dementia
  - DLB:
    - progressive dementia with microscopic protein deposits
    - associated with Parkinson's disease symptoms

- other dementias include:
  - FTD
  - other focal dementias, eg posterior cortical atrophy [4]
  - mixed dementias – includes AD with vascular dementias, and AD with DLB [4]
• Young onset dementia refers to dementia that develops before age 65 years – people aged under 65 years represent 8% of all people with dementia in Australia[5].

Prevalence
In 2011, it was estimated that one in ten Australians aged 65 and over, and three in ten Australians aged over 85 had dementia[5]. That equates to approximately 4,310 people with dementia in the Frankston and Mornington Peninsula catchment in 2011. This figure is expected to increase by more than 200 people a year over the next 10 years [6].

General risk factors include [1]:
• Down's syndrome and other learning disorders
• history of psychiatric problems, particularly depression [7]
• limited social network
• genetic predisposition
• risk factors for cardiovascular disease:
  • smoking
  • excessive alcohol consumption
  • obesity
  • diabetes
  • hypertension
• lack of or limited exercise [7]

Prognosis:
• depends on the cause of the dementia [1]
• varies from person to person since the course of the condition and pattern of symptoms varies [1]
• median survival from onset estimated at 7 years for AD [8]
• early-onset dementia tends to progress more rapidly [1]
• almost all people with dementia eventually develop a range of cognitive difficulties (memory, language, attention/orientation, visuoperceptual, executive function) [3] as well as one or more psychological, or behavioural problems (behavioural and psychological symptoms of dementia [BPSD]), eg:
  • eating and swallowing difficulties [9]
  • psychiatric manifestations – eg depression, psychosis [1]
• personality/behavioural changes, eg [1]:
  • aggression
  • sleep disturbance
  • generalised apathy [7]
  • loss of libido
  • disinhibited sexual behaviour (rarely)

References:
7. Contributors representing the Royal College of Physicians (RCP) and the Royal College of General Practitioners (RCGP). 2014.
2 Resources for patients, families and carers

Quick info:
Recommended resources for patients and carers:
- Comprehensive information about dementia from Alzheimer's Australia Vic
- Printable fact sheets on dementia in several languages from Alzheimer's Australia Vic
- Advance Care Planning in Frankston and the Mornington Peninsula
- RACV guide to dementia and driving
- List of local dementia services
- www.respiteseeker.com.au List of residential and day respite services

3 Aboriginal and Torres Strait Islander health

Quick info:
- Dementia Learning Resource For Aboriginal And Torres Strait Islander Communities

There is growing, evidence of the nature and impact of dementia in Aboriginal and Torres Strait Islander communities. Prevalence studies in remote communities show high prevalence rates of dementia in relatively young populations. There may be an increased risk of developing dementia at a younger age (from 45 years) reflecting the continuing poor health status and the burden of chronic disease many Indigenous communities face. Very few Aboriginal and Torres Strait Islander people with dementia access mainstream government funded community care programs in comparison to the rest of the Australian population. According to Australian Institute of Health and Welfare research, an overwhelming majority of Aged Care Assessment Program clients were non-Indigenous, with only around one per cent of clients identifying as Aboriginal and/or Torres Strait Islander.

As a result, particular attention is warranted with dementia service planning to engage with and provide services for Aboriginal and Torres Strait Islander populations appropriately to address this imbalance.

In a study in remote WA, 12% of 363 Aboriginal people aged over 45 had dementia, which is three times higher than the general population. In addition there appears to be a relatively larger proportion of Indigenous Australians in the 45 to 69 year age group affected by dementia Dementia in Australia', AIHW, (2012).

Reference

4 History and examination

Quick info:
- Take a focussed history from the person and, with their permission, an informant who is close to them – it is often helpful to state at the beginning of the assessment that patient and informant will be spoken to separately [1,2].
- Ask about [1]:
  - problems with:
    - memory
    - orientation, eg confusional state
    - speech and language
    - performing key roles and activities
    - vision
    - hearing
Dementia - diagnosis

Assess onset and progression of symptoms, eg [3]:
• when were they first noticed?
• was onset sudden or gradual (over several months/years)?
• are symptoms worse at night?
• is there associated drowsiness, impairment of consciousness?
• was onset linked to a head injury, blackout, or stroke?

Ask about [2]:
• non-cognitive manifestations, eg:
  • behavioural or personality changes
  • co-morbid psychiatric symptoms, eg depression, psychosis
  • disinhibition
  • feelings of restlessness, agitation
  • aggressive behaviour
• patterns of non-cognitive manifestations – try to identify triggers and exacerbating factors
• co-morbidities, particularly those which may impact on cognition function

Review medications [4], particularly those with significant anticholinergic side-effects especially, but not exclusively, those used to treat urinary incontinence [5], eg [3]:
• tri-cyclic antidepressants, eg amitriptyline
• opiates
• drugs for urinary symptoms
• antihistamines
• antipsychotic medications
• benzodiazepines and night sedation

Check for history of [3]:
• goitre, slow pulse, dry skin, hypothyroidism
• sexually-transmitted infection (STI) or HIV
• cardiovascular disease
• poor dietary intake, malnutrition, anaemia

Perform a general physical examination [6].

References:
2. Contributors representing the Royal College of Physicians (RCP) and the Royal College of General Practitioners (RCGP). 2014.
5 Differential diagnoses and co-morbidities

Quick info:
Consider differential diagnoses and co-morbidities (at the time of diagnosis and then at regular intervals) [1], eg:

- depression – cognitive impairment may be the result of severe depression, rather than dementia; dementia can present with depression [2]
- psychiatric illness
- delirium – may be caused by [3]:
  - chest infection
  - urinary tract infection
  - medications
  - biochemical imbalance
  - alcohol withdrawal
- amnesic disorder such as Korsakoff's syndrome or carbon monoxide toxicity [2]
- head trauma, eg subdural, either acute or chronic [4]
- substance misuse

References:
4. Contributors representing the Royal College of Physicians (RCP) and the Royal College of General Practitioners (RCGP). 2014.

6 Structural imaging

Quick info:
Structural imaging should be performed at least once in patients with cognitive impairment [1]:

- imaging is used to:
  - exclude other potentially treatable diseases, eg subdural haematoma, other space-occupying lesions, hydrocephalus [2]
  - recognise vascular lesions
  - identify specific findings that may differentiate different forms of dementia
  - non-contrast MRI is the preferred modality for the assessment of dementia
  - CT scan may be used where MRI is unavailable, patient is claustrophobic, patient cannot tolerate MRI, or contraindicated [3]
  - If there has been a specific event such as a TIA, loss of function or ‘funny turn’ it is beneficial to have a CT at that time. It is also helpful to have old CTs to compare.

Assess neurological findings [4]:

- it is difficult to attribute clinical significance to evidence of cerebrovascular disease – diagnosis of vascular dementia should only be made when the vascular lesions can explain the cognitive deficit
- focal medial temporal lobe atrophy may support a diagnosis of Alzheimer's disease (AD), especially with focal atrophy of the parietal regions and posterior cingulate cortex
- temporal pole and/or frontal lobe atrophy is seen in frontotemporal dementia (FTD)
- no structural pattern is characteristic for dementia with Lewy bodies (DLB)

References:
2. Contributors representing the Royal College of Physicians (RCP) and the Royal College of General Practitioners (RCGP). 2014.

7 Further investigations (if indicated)

Quick info:
There are a number of functional neuroimaging tests that are available at the Austin Hospital that may be used for a more definite diagnosis. These tests are more often used with younger people.

These tests include:
- Single photon emission CT scan (SPECT)
- Fluorodeoxy-glucose (FDG) positron emission tomography (PET) [1,2]

References:
2. Contributors representing the Royal College of Physicians (RCP) and the Royal College of General Practitioners (RCGP). 2014.

8 Dementia types

Quick info:
Alzheimer disease
Most common type of dementia, accounting for about 50% to 75% of dementia cases

Vascular dementia
The second most common type of dementia, with about 20% to 30% of dementia cases

Frontotemporal dementia
Accounts for about 5% to 10% of cases and is relatively more common in males with a younger onset of dementia.

Dementia with Lewy bodies
Accounts for up to 5% of cases

References

9 Alzheimer's disease

Quick info:
Diagnosis of Alzheimer's disease (AD) is primarily based on clinical features, after excluding other systemic and brain disorders that could account for the cognitive impairment.

Clinical features:
- insidious onset – symptoms progress over months to years [1]
- clear-cut history of worsening of cognition by report or observation
- no evidence of [1]:
  - substantial concomitant cerebrovascular disease
  - core features of dementia with Lewy bodies (DLB)
  - prominent features of another active neurological disease
- in the early stages of Alzheimer's disease, people commonly [2]:
  - have memory lapses – forgetting the names of people, places, recent events, and things
  - miss appointments
  - experience problems with executive function – for example, when performing tasks involving multiple steps, eg preparing a meal
  - have confusion with medication, especially non-compliance [3]
Dementia - diagnosis

• as the disease progresses, other symptoms become apparent, eg difficulties with:
  • language and communication
  • planning and decision making
• often co-exists with vascular dementia [4]:
  • both aspects of disease must be managed appropriately
  • recognition and management of vascular risk factors in those with mixed disease is essential

Other commonly reported symptoms include [2]:
• apraxia (problems with learned movement)
• difficulties in planning and decision-making
• confusion, eg getting lost in familiar surroundings
• other symptoms such as:
  • apathy
  • depression
  • agitation, eg motor restlessness
  • disinhibition
  • delusions and hallucinations
  • wandering
  • aggression, eg physical resistiveness during personal care
  • incontinence
  • altered eating habits

References:
3. Contributors representing the Royal College of Physicians (RCP) and the Royal College of General Practitioners (RCGP). 2014.

10  Frontotemporal dementia (FTD)

Quick info:
Frontotemporal dementia (FTD) is caused by circumscribed degeneration of the frontal and temporal lobes of the brain [1]. Clinical features include [1]:
• insidious development
• presents with:
  • behavioural disturbances, eg disinhibition or apathy; or
  • language disturbance
• other cognitive functions are initially relatively spared in most cases
• FTD symptoms can be the first signs of motor neurone disease [2]

References:

11  Vascular dementia
Vascular dementia results from the effects of cerebrovascular disease on cognitive function [1]. Cerebral infarctions are very common in older people, and may not be associated with clinical symptoms [2].

Clinical features:
- often presents with an insidious course rather than as a series of stepwise increases in the severity of symptoms [1]
- diagnostic criteria are [2]:
  - cognitive impairment and imaging evidence of cerebrovascular disease with either:
    - a clear temporal relationship between a vascular event, eg clinical stroke, and onset of cognitive deficits; or
    - there is a clear relationship in the severity and pattern of cognitive impairment and presence of diffuse, subcortical cerebrovascular disease
  - there is no history of gradually progressive cognitive deficits before or after the stroke suggesting a nonvascular degenerative disorder
- often co-exists with Alzheimer's disease (AD) [1]:
  - both aspects of disease must be managed appropriately
  - recognition and management of vascular risk factors in those with mixed disease is essential

References:

12 Dementia with Lewy bodies (DLB)

Quick info:
Lewy bodies are abnormal microscopic deposits of protein that develop inside nerve cells and cause a progressive dementia [1]. Clinical features may include [1]:
- fluctuating levels of confusion [2]
- visual hallucinations (generally vivid visual hallucinations) [2]
- Parkinsonian motor problems:
  - shuffling gait
  - rigidity
  - slow movement
  - loss of spontaneous movement
- Parkinsonian autonomic dysfunction:
  - postural hypotension
  - difficulty in swallowing
  - incontinence or constipation
  - disturbances in rapid eye movement (REM) sleep
  - severe sensitivity to antipsychotic medication

References:

13 Mild cognitive impairment

Quick info:
Follow up every 6-12 months until it is clear whether symptoms are stable or progressing [1].

Mild cognitive impairment:
• clinical criteria are [2]:
  • concern regarding a change in cognition
  • impairment in one or more cognitive domains
  • preservation of independence in functional abilities
• may progress to dementia [3]
• cognitive enhancers are ineffective [4,5]
• up to 40% of patients with mild cognitive impairment can, at some point in time, revert to normal [6]
• transition to dementia, usually Alzheimer's disease (AD), is 10-15% per year [6]
• be aware that early signs of other dementias are often non-cognitive, eg [6]:
  • fluctuating psychosis in dementia with Lewy bodies (DLB)
  • apathy/depression in frontotemporal dementia (FTD)

References:
1. Contributors representing the Royal College of Physicians (RCP) and the Royal College of General Practitioners (RCGP). 2014.

14 Mixed dementia

Quick info:
Many cases of dementia may have mixed pathology, such as Alzheimer's disease and vascular dementia – such cases should be managed according to the condition that is thought to be the predominant cause [1].

References:

15 Other dementias

Quick info:
Other dementias:
• Fronto temporal lobar dementia
• Alcohol related dementia
• Down syndrome and Alzheimer's disease
• AIDS related dementia
Dementia
Mental Health / Dementia

Provenance certificate

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Overview

This document describes the provenance of the Peninsula Pathways, Dementia pathway.

This pathway was last updated on December 19, 2014.

The Peninsula Pathways Program aims to improve the continuity of patient care between primary, community and hospital care settings in the Frankston-Mornington Peninsula region. Work groups comprising of experienced health professionals (GPs, specialists, nurses, allied health professionals) were established to review and localise pathways.

This pathway has been developed to improve outcomes for patients, family members and carers of people with dementia.

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Editorial methodology

This care map has been based on a Map of Medicine care map developed according to the Map of Medicine editorial methodology. The content of this Map of Medicine care map is based on high quality guidelines and practice-based knowledge provided by contributors with front-line clinical experience (see contributors section of this document). This localised version of the evidence-based, practice informed care map has been consulted by relevant stakeholder representatives.

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Conflicts of interest: none declared
Dementia
Mental Health / Dementia

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Conflicts of interest
None declared

Disclaimers
It is not the function of the Pathways Program, Frankston-Mornington Peninsula Medicare Local to substitute for the role of the clinician, but to support the clinician in enabling access to know-how and knowledge. Users of the Map of Medicine are therefore urged to use their own professional judgement to ensure that the patient receives the best possible care. Whilst reasonable efforts have been made to ensure the accuracy of the information on this online clinical knowledge resource, we cannot guarantee its correctness and completeness. The information on the Map of Medicine is subject to change and we cannot guarantee that it is up-to-date.