Driving and Medication Management in Dementia

Dr Steph Daly - GP

Dr Rebecca Moore - GP

Dr Joseph Ibrahim - Geriatrician

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Acknowledgement of Country

The RACGP acknowledges the Traditional Custodians of the land and waterways in which we work and live. We recognise their continuing connection to land, water and culture, and pay our respects to Elders past, present and future.

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GP Facilitator – Dr Steph Daly

Dr Daly established and coordinates the Dementia Subgroup of RACGP Specific Interests Aged Care.

Dr Stephanie Daly is a GP in Adelaide with a strong interest in older persons' health, in particular dementia and cognition. She is a lead GP educator with Dementia Training Australia and is also the founder of Sensus Cognition a GP led community clinic for cognition and dementia support and assessment.

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Dr Rebecca Moore

Rebecca is a GP in Newcastle with a special interest in Geriatrics and Dementia. She is in the final stages of a Masters of Dementia through the Wicking Research and Education Centre at the University of Tasmania. Rebecca is a member of the Dementia Training Australia Medical Educator team.

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Dr Joseph Ibrahim

Joseph has academic appointments at the Australian Centre for Evidence Based Aged Care, La Trobe University, and Monash University. He is also a practising senior consultant specialist in geriatric medicine with over 30 years of clinical experience in a larger regional health service.

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To begin with end in mind

1. Discussion of driving and dementia should be started early
2. There is no single test that will inform our decision making on driving
3. Medication management can be valuable part of supportive care for someone living with dementia
4. Use of the team, including pharmacists may improve outcomes for people living with dementia

Learning outcomes

- Identify the key impacts of loss of licence for drivers living with dementia
- Outline the steps involved in a driving assessment for a person living with dementia
- Outline the pharmacological tools which may assist in the management of dementia

Questions? Poll

1. Why is the assessment for fitness to drive in dementia so vague?`
2. Is there a reliable office based cognitive assessment tool to use for assessing fitness to drive in dementia?
3. What tips do you have when the carer/family has said don’t drive, but the PLWD is adamant they still can?
4. Should everyone have an OT assessment?
5. My patient only drives a few kms to the shops and to see the doctor - can't I just put a distance restriction on the driving licence medical?

Driving in older persons

- Increased risk of injury – despite driving less
- Moderate to severe dementia (Stage 2/3) should not be driving
- Stage 1 (Mild) may be able drive but with regular review – time limited

Driving in older persons.

- Be aware co-morbidities increase the risk
- Driving Capacity
- Do not avoid diagnosis, simply because of driving conversation

Impacts of loss of licence

Assessment in practice

Cognitive assessment history

- as per previous webinar – domains/stages/inclusion/exclusion

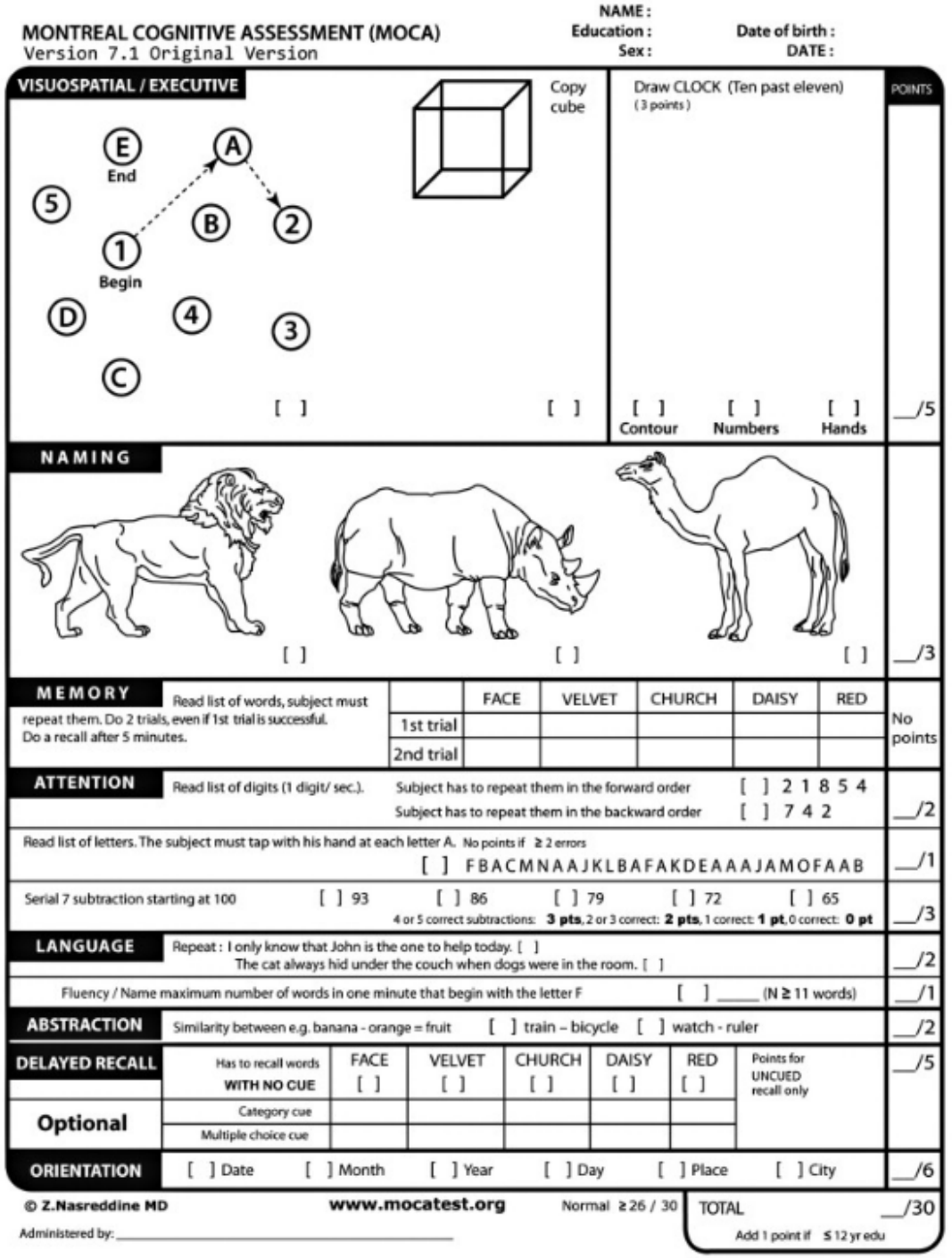
Driving history

- How is driving now
- Any near misses
- Any self restriction or insight into driving difficulties
- Orientation issues

Collateral history

- History from spouse, children, others

MOCA



MONTREAL COGNITIVE ASSESSMENT (MOCA)
Version 7.1 Original Version

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

VISUOSPATIAL / EXECUTIVE — POINTS

Copy cube

Draw CLOCK (Ten past eleven) (3 points)

[ ] 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
1st trial					
2nd trial					

No points

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

[ ] F B A C M N A A J K L B A F A K D E A A A J A M O F A A B

__/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
		[ ]	[ ]	[ ]	[ ]	[ ]
Optional	Category cue					
	Multiple choice cue					

Points for UNCUED recall only

__/5

ORIENTATION [ ] Date [ ] Month [ ] Year [ ] Day [ ] Place [ ] City

__/6

© Z.Nasreddine MD www.mocatest.org Normal ≥ 26 / 30

TOTAL __/30

Add 1 point if ≤ 12 yr edu

Administered by: _____

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MAZE test

Suggested Cut-Point Scores

> 61 seconds or longer

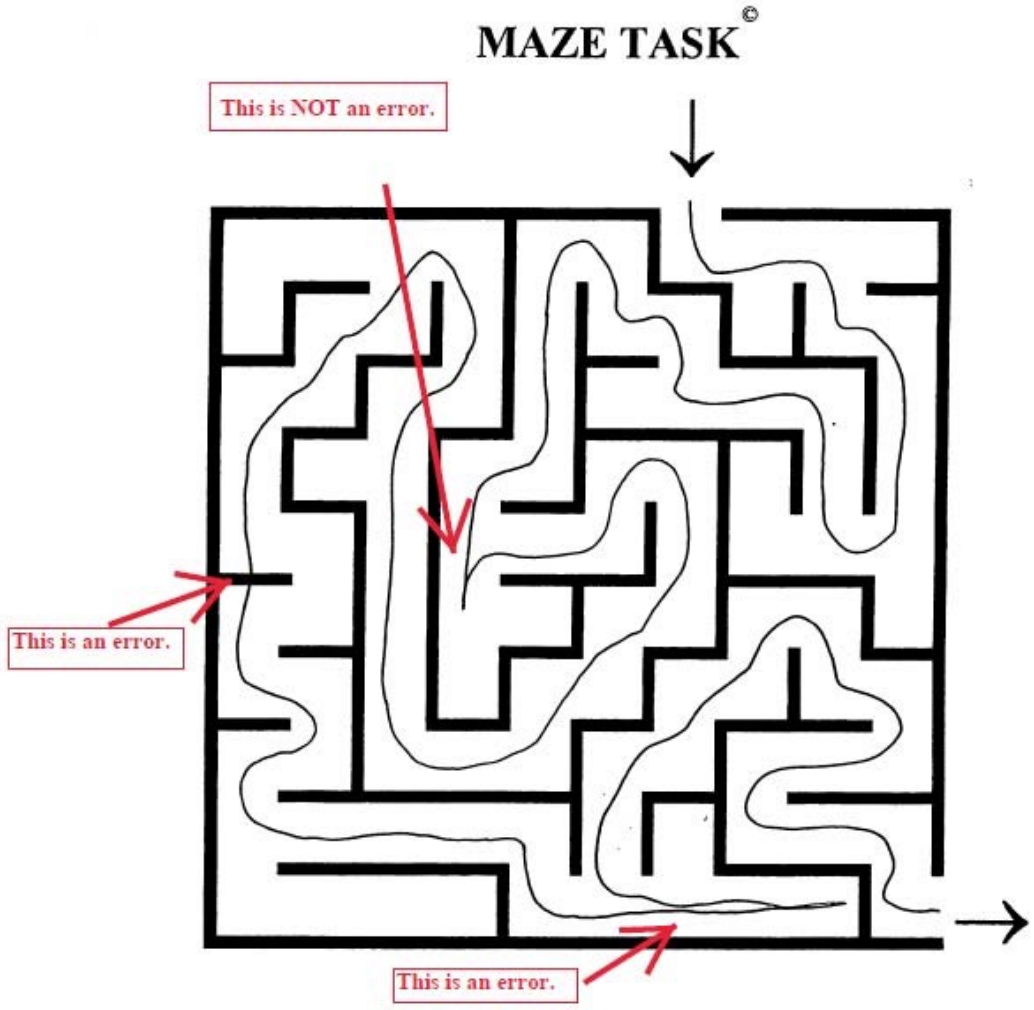
- with or without errors,
- then the participant is not cognitively fit to drive safely.

≤ 60 seconds

- but with 2 or more errors
- then the participant is not cognitively fit to drive safely

< 60 seconds

- With 0 of 1 errors
- then the participant is likely to have adequate capacity to drive



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Clock Draw Test

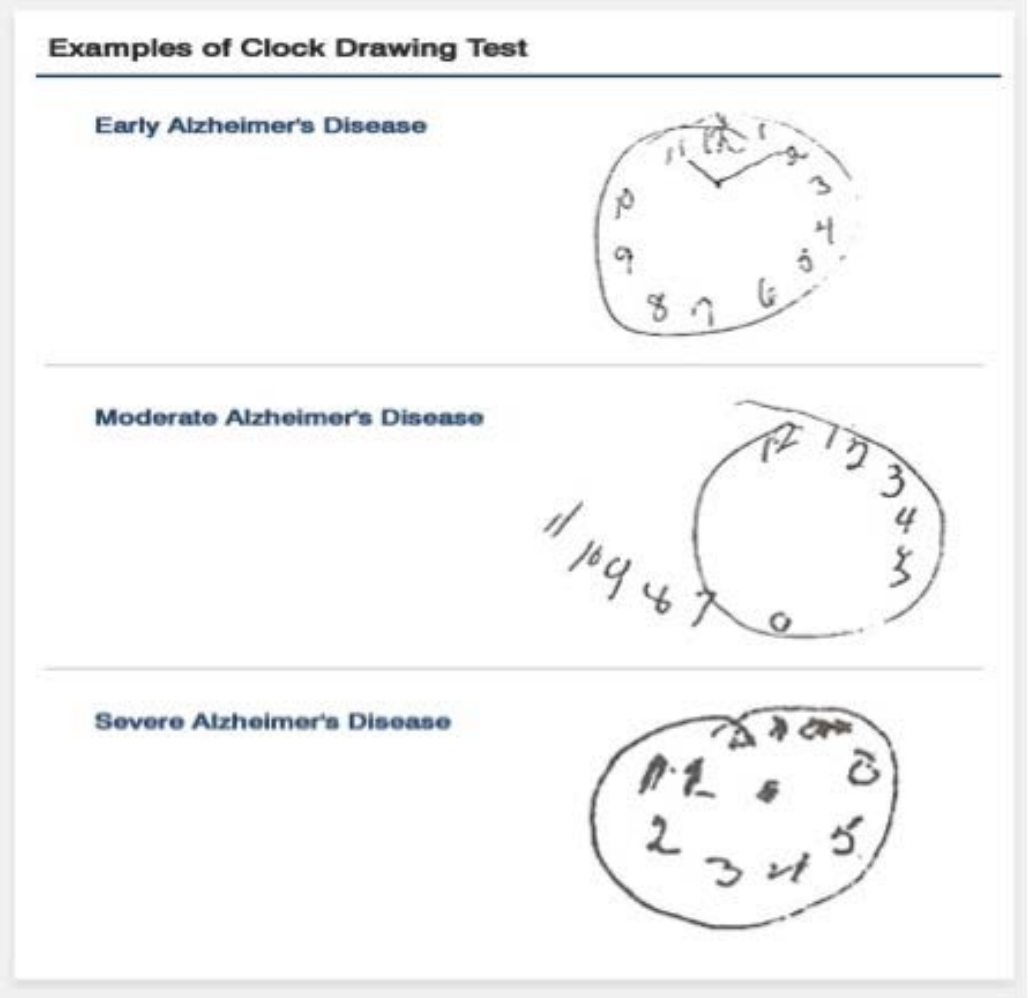

Figure taken from *Understanding Dementia: A Primer of Diagnosis and Management*,

Questions? Answers?

1. Why is the assessment for fitness to drive in dementia so vague?`
2. Is there a reliable office based cognitive assessment tool to use for assessing fitness to drive in dementia?
3. What tips do you have when the carer/family has said don’t drive, but the PLWD is adamant they still can?
4. Should everyone have an OT assessment?
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Take home messages

- Have the conversation early
- Increased decline in function maybe early warning sign
- Continue to discuss driving frequently
- Consider ongoing objective assessment (clock draw, MOCA)

Podcast episode

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Demystifying Dementia in Primary Care: Medication & Dementia

Dr Steph Daly and Dr Rebecca Moore
DTA GP clinical education team

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Case example – Valda, 80 y/o female. Multiple comorbidities

• Amitriptyline	25mg nocte
• Aspirin	100mg daily
• Amlodipine	5mg daily
• Bisoprolol	1.25mg daily
• Esomeprazole	20mg daily
• Perindopril	4mg daily
• Furosemide	40mg mane, 20mg midi
• Macuvision	one daily
• Vitamin D	1000IU daily
• Oxybutynin	2.5mg bd
• Palexia SR	100mg bd
• Denosumab	60mg s/c 6 monthly

Medication that can affect cognition

ACUTE	CHANGE	IN	M(ental) S(tate)
Antiparkinsonian **C**orticosteroids **U**rologic (antispasmodics)[1] Theophylline **E**mesis (antiemetics)	**C**ardiac (antiarrhythmics) **H**2 blockers (cimetidine) **A**nticholinergics **N**SAIDs **G**eropsychotropic **E**toh	**I**nsomnia medications **N**arcotics	**M**uscle relaxants **S**eizure medications

[1]**U**rologic (antispasmodics) such as oxybutynin or tolterodine

[2]**G**eropsychotropic medications (such as antidepressants, antipsychotics, sedatives)

Central nervous system
Drowsiness
Dizziness
Headache
Confusion
Cognitive impairment
Seizures

Heart
Tachycardia
Arrhythmias
Postural hypotension

Mouth
Dry mouth
Thirst
Denture problems
Reduced oral intake

Anticholinergic burden

Increased risk of all cause mortality & incident stroke in people with dementia

Eyes
Dry eyes
Blurred vision
Increased glaucoma risk

Genitourinary
Hesitancy
UTI
Urinary retention

Skin
Dry skin
Flushed skin
Decreased sweating
Hyperthermia

Gastrointestinal
Constipation
Dyspepsia/GORD
Nausea and vomiting

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Antagonise acetylcholinesterase inhibitors

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Anticholinergic Drug Burden

A score of 4 or more increases risk of anticholinergic toxicity

And the effect is cumulative

Score 1	Score 2	Score 3
Atenolol & most beta blockers	Prochlorperazine	**Amitriptyline, doxepin, and most related tricyclic antidepressants**
Bupropion	Baclofen	**Atropine, hyoscine**
Codeine & other opiates	Carbamazepine	**Chlorphenamine & other sedating antihistamines**
Diazepam & other benzodiazepines	Most non-sedating antihistamines	**Olanzapine & most atypical antipsychotics**
Furosemide & other diuretics		**Orphenadrine**
Quetiapine	Loperamide	**Oxybutynin & some other incontinence drugs.**

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(Table adapted from the STOPP/START toolkit)

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Case example – 80 y/o Female – cognitive impairment

- Amitriptyline 25mg nocte
- Aspirin 100mg daily
- Amlodipine 5mg daily
- Atorvastatin 20mg daily
- Bisoprolol 1.25mg daily
- Esomeprazole 20mg daily
- Perindopril 4mg daily
- Furosemide 40mg mane, 20mg midi
- Macuvision one daily
- Vitamin D 1000IU daily
- Palexia SR 100mg bd
- Denosumab 60mg s/c 6 monthly

Tips on medication management

- In large print, provide a copy of medication list and indications
- Simplify administration, dosing and timing
- Dose-administration aids
- Set alarms/reminders for dosing and also repeat scripts
- Minimise brand substitution
- Talk to your pharmacist / DMMR

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Case example – streamlining meds

- Amlodipine 5mg daily
- Aspirin 100mg daily
- Atorvastatin 20mg daily
- Bisoprolol 1.25mg daily
- Esomeprazole 20mg daily
- Perindopril 4mg daily
- Furosemide 40mg mane, 20mg midi
- Macuvision one daily
- Vitamin D 1000IU daily
- Palexia SR 50mg bd
- Denosumab 60mg s/c 6 monthly
- Donepezil 10mg daily

Case example – Stage 1

- Perindopril/Amlodipine 5/5mg daily
- Aspirin 100mg daily
- Bisoprolol 1.25mg daily
- Esomeprazole 20mg daily
- Furosemide 40mg mane
- Macuvision one daily
- Vitamin D 50000IU monthly
- Buprenorphine 10mcg patch weekly
- Denosumab 60mg s/c 6 monthly
- Donepezil 10 mg daily

Pharmacological options: Acetylcholinesterase Inhibitors

- Inhibit the enzyme that breaks down the neurotransmitter acetylcholine
- Individual response (30-50% will not respond)
- If helpful, the cognitive response is modest but persisting
- Reduces risk of mortality of stroke, cardiovascular & renal disease
- Can be used in the treatment of Alzheimer's, Lewy body and Parkinson's dementia

PBS indications:

Mild-moderately severe Alzheimer's disease
Confirmed by or in consultation with a specialist
Must have MMSE of 10 or more – If 25-30, sub-cognitive sub-scale (ADAS-Cog) also specified.

Side effects of Acetylcholinesterase inhibitors

Central nervous system
Drowsiness
Dizziness
Vivid dreams
Seizures

Heart
Bradycardia
Arrhythmia

Gastrointestinal
Diarrhoea
Gastric ulceration
Nausea and vomiting
Dyspepsia

Genitourinary
Urinary incontinence

Contraindications

Active peptic ulcer disease
Ureteric or GI obstruction

Relative contraindications

Cardiac conduction anomalies
Bradycardia
Epilepsy
Peptic ulcer disease
Significant airways disease

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Dementia Q&A 1

Drug treatments for Alzheimer's disease: Cholinesterase inhibitors

Three drugs in a class called cholinesterase inhibitors are used in Australia to treat Alzheimer's disease. This sheet provides information about how these drugs work, who might benefit, how they are prescribed and what questions people should ask their doctor if being prescribed any of these drugs.

What are cholinesterase inhibitor drugs?

There are several drugs for treatment of Alzheimer's disease approved for use in Australia. This sheet provides information about the three

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Medication	Dosing
Donepezil	Start at 5mg and increase to 10mg at 4 weeks
Galantamine	Start at 8mg, Increase to 16mg at 4 weeks Can increase to 24mg at 8 weeks
Rivastigmine	CAPSULE: Start at 1.5mg bd then Increase to 3mg bd at week 2, 4.5mg bd at week 3 and 6mg bd at week 4 PATCH: 4.6mg/24hr patch daily for 4 week & increase to 9.5mg/24 hr patch. Can increase to 13.3mg/24hr patch at week 8
Memantine	Start at 10mg and increase to 20mg after 4 weeks.

Pharmacological options: N-methyl-D-aspartate NMDA receptor antagonist (Memantine)

Prevents overactivity of glutamate receptors

PBS listing

- Moderate to severe Alzheimer's
- MMSE of 10-14
- in consultation with specialist.

Clinical Guidelines in deprescribing medication for dementia:

For individuals taking a cholinesterase inhibitor for greater than 12 months

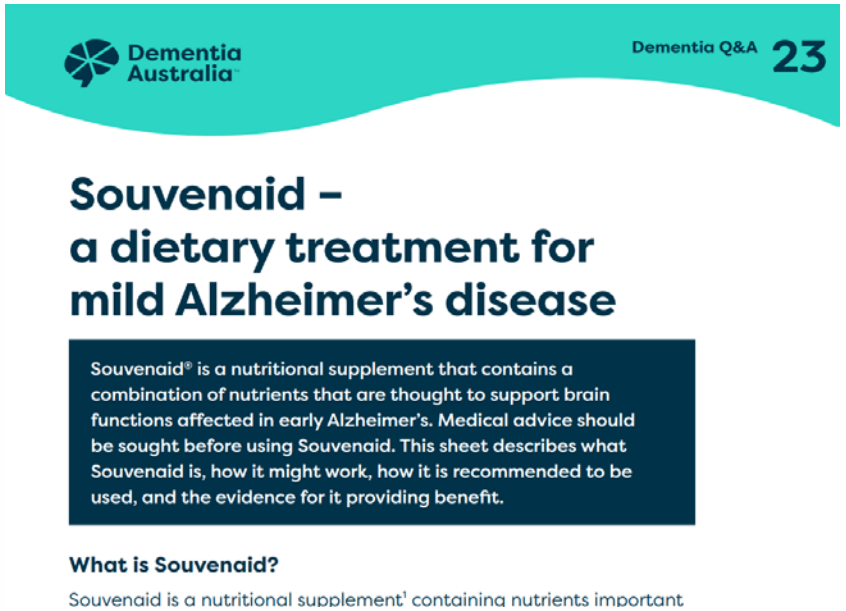
Trial discontinuation if:

- Significant worsening of cognition
- No benefit seen during treatment
- End stage dementia

Taper- step-down dose approach

Souvenaid

- Daily Nutritional supplement
- Cost approximately $4.50 each 125ml
- Limited research: There have been 4 randomized controlled trials (one independent) including a total of 1332 patients
- Well tolerated
- Statistically significant effect on memory in early AD at 12 and 24 weeks, with effects ongoing up to 48 weeks
- Not shown to improve cognitive decline in mild-moderate AD
- In MCI, Souvenaid significantly reduced cognitive decline and hippocampal volume loss after three years of use. (*Independent study**)



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Dementia Q&A 23

Souvenaid – a dietary treatment for mild Alzheimer's disease

Souvenaid® is a nutritional supplement that contains a combination of nutrients that are thought to support brain functions affected in early Alzheimer's. Medical advice should be sought before using Souvenaid. This sheet describes what Souvenaid is, how it might work, how it is recommended to be used, and the evidence for it providing benefit.

What is Souvenaid?

Souvenaid is a nutritional supplement[1] containing nutrients important

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Considerations in deprescribing in dementia

The goal-posts move as the condition progresses

BUT ALWAYS CONSIDER

- Quality of life
- Advanced care planning
- Shared decision-making
- Lowest dose
- Continued review of need

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Stage 1

- medication review / simplification
- continue influenza vaccinations indefinitely

Stage 2

- use less stringent targets for blood pressure & blood glucose
- cease medications where likely time to benefit extends beyond life expectancy (eg statins)

Case example – 80 y/o Female – Stage 2 dementia

• Perindopril/Amlodipine	5/5mg daily
• Aspirin	100mg daily
• Bisoprolol	1.25mg daily
• Esomeprazole	20mg daily
• Furosemide	40mg mane
• Macuvision	one daily
• Vitamin D	50000IU monthly
• Buprenorphine	10mcg patch
• Denosumab	60mg s/c 6 monthly
• Donepezil	10mg daily

Stage 3

Only use medications that provide symptom relief

http://www.match-d.com.au

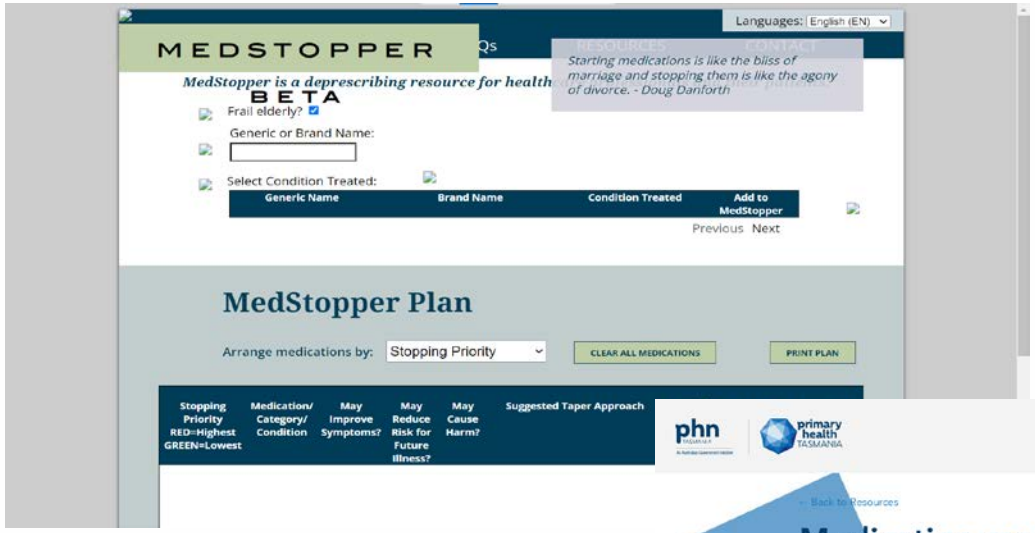
Case – Stage 3 Dementia

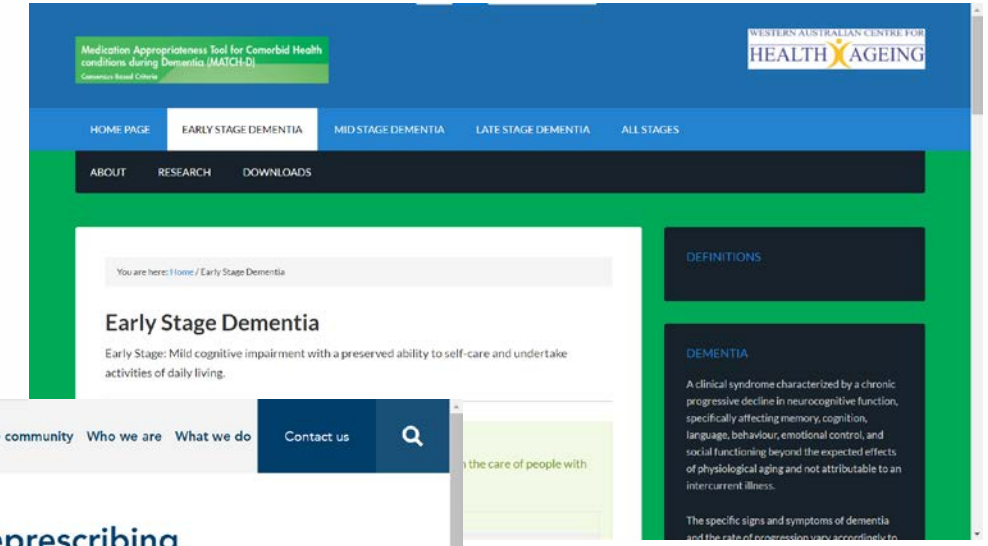
• Perindopril/Amlodipine	5/5mg daily
• Aspirin	100mg daily
• Bisoprolol	1.25mg daily
• Esomeprazole	20mg daily
• Furosemide	40mg mane
• Vitamin D	50000IU monthly
• Buprenorphine	10mcg patch
• Denosumab	60mg s/c 6 monthly
• Donepezil	10mg daily

Stage 3

- Pantoprazole granules 20mg daily
- Furosemide 40mg mane (crushed)
- Buprenorphine 15mcg patch

Resources


MEDSTOPPER
MedStopper is a deprescribing resource for health
BETA
Starting medications is like the bliss of marriage and stopping them is like the agony of divorce. - Doug Danforth
Languages: English (EN)
Frail elderly?
Generic or Brand Name:
Select Condition Treated:
Generic Name
Brand Name
Condition Treated
Add to MedStopper
Previous Next
MedStopper Plan
Arrange medications by: Stopping Priority
CLEAR ALL MEDICATIONS
PRINT PLAN
Stopping Priority RED=Highest GREEN=Lowest
Medication/ Category/ Condition
May Improve Symptoms?
May Reduce Risk for Future Illness?
May Cause Harm?
Suggested Taper Approach


Medication Appropriateness Tool for Comorbid Health conditions during Dementia (MATCH-D)
WESTERN AUSTRALIAN CENTRE FOR HEALTH AGEING
HOME PAGE
EARLY STAGE DEMENTIA
MID STAGE DEMENTIA
LATE STAGE DEMENTIA
ALL STAGES
ABOUT
RESEARCH
DOWNLOADS
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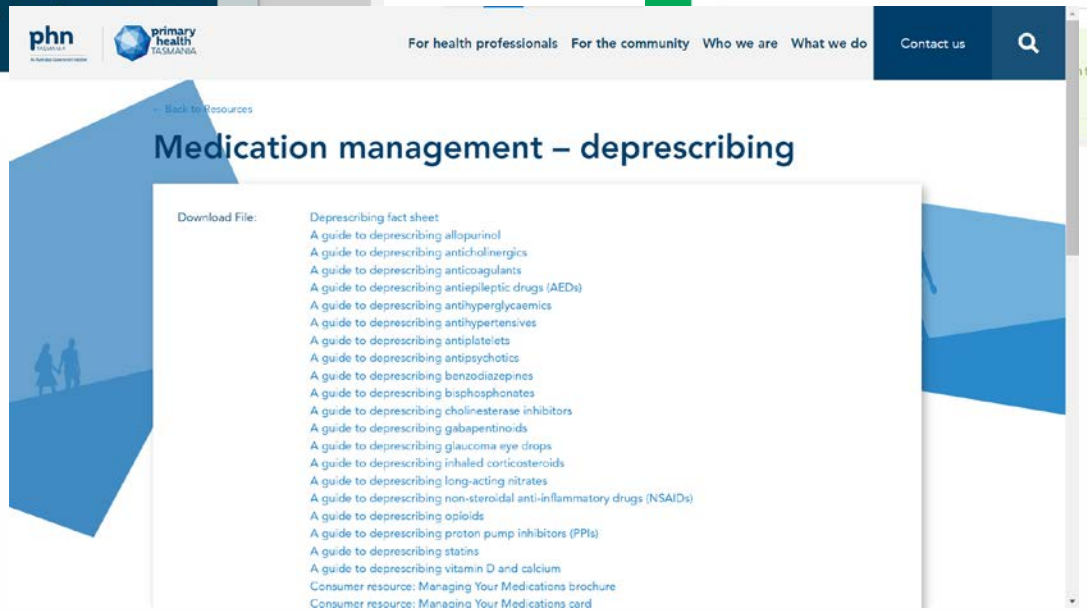
Early Stage Dementia
Early Stage: Mild cognitive impairment with a preserved ability to self-care and undertake activities of daily living.
DEFINITIONS
DEMENTIA
A clinical syndrome characterized by a chronic progressive decline in neurocognitive function, specifically affecting memory, cognition, language, behaviour, emotional control, and social functioning beyond the expected effects of physiological aging and not attributable to an intercurrent illness.
The specific signs and symptoms of dementia


phn
primary health TASMANIA
For health professionals
For the community
Who we are
What we do
Contact us
← Back to Resources
Medication management – deprescribing
Download File:
Deprescribing fact sheet
A guide to deprescribing allopurinol
A guide to deprescribing anticholinergics
A guide to deprescribing anticoagulants
A guide to deprescribing antiepileptic drugs (AEDs)
A guide to deprescribing antihyperglycaemics
A guide to deprescribing antihypertensives
A guide to deprescribing antiplatelets
A guide to deprescribing antipsychotics
A guide to deprescribing benzodiazepines
A guide to deprescribing bisphosphonates
A guide to deprescribing cholinesterase inhibitors
A guide to deprescribing gabapentinoids
A guide to deprescribing glaucoma eye drops
A guide to deprescribing inhaled corticosteroids
A guide to deprescribing long-acting nitrates
A guide to deprescribing non-steroidal anti-inflammatory drugs (NSAIDs)
A guide to deprescribing opioids
A guide to deprescribing proton pump inhibitors (PPIs)
A guide to deprescribing statins
A guide to deprescribing vitamin D and calcium
Consumer resource: Managing Your Medications brochure
Consumer resource: Managing Your Medications card

Q&A

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