Dementia + a bit more

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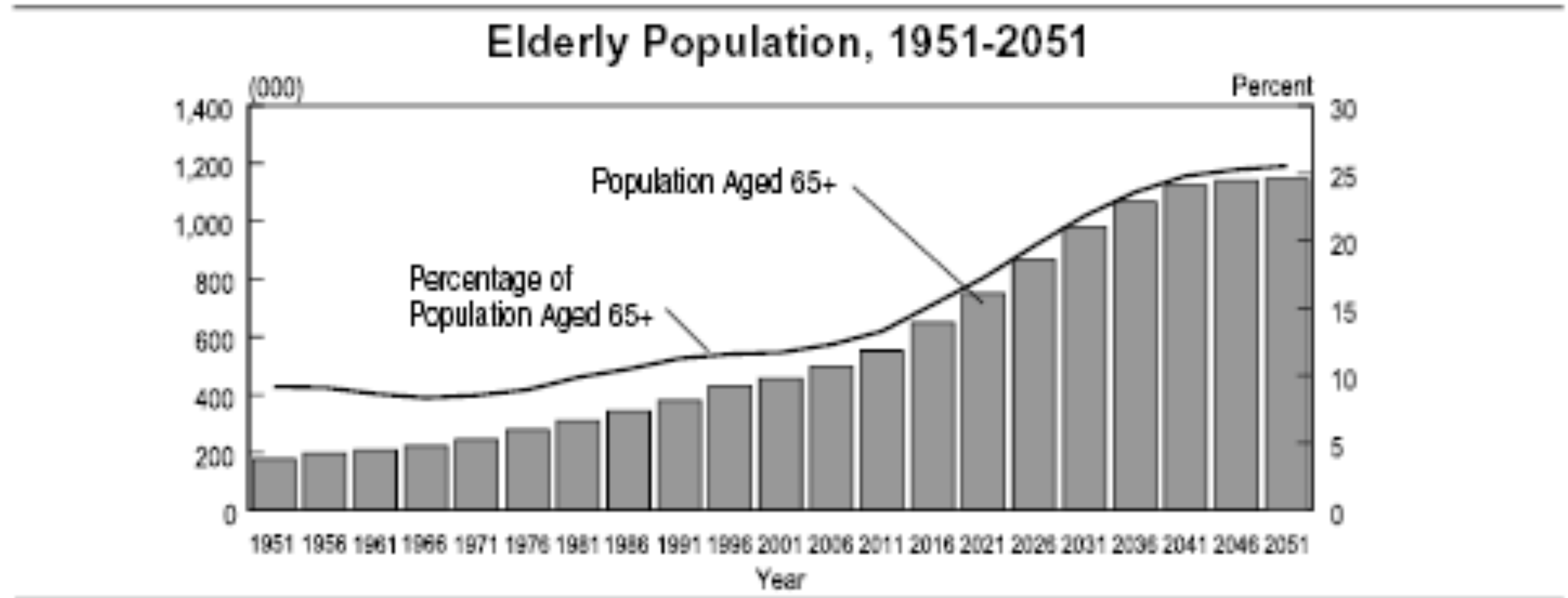
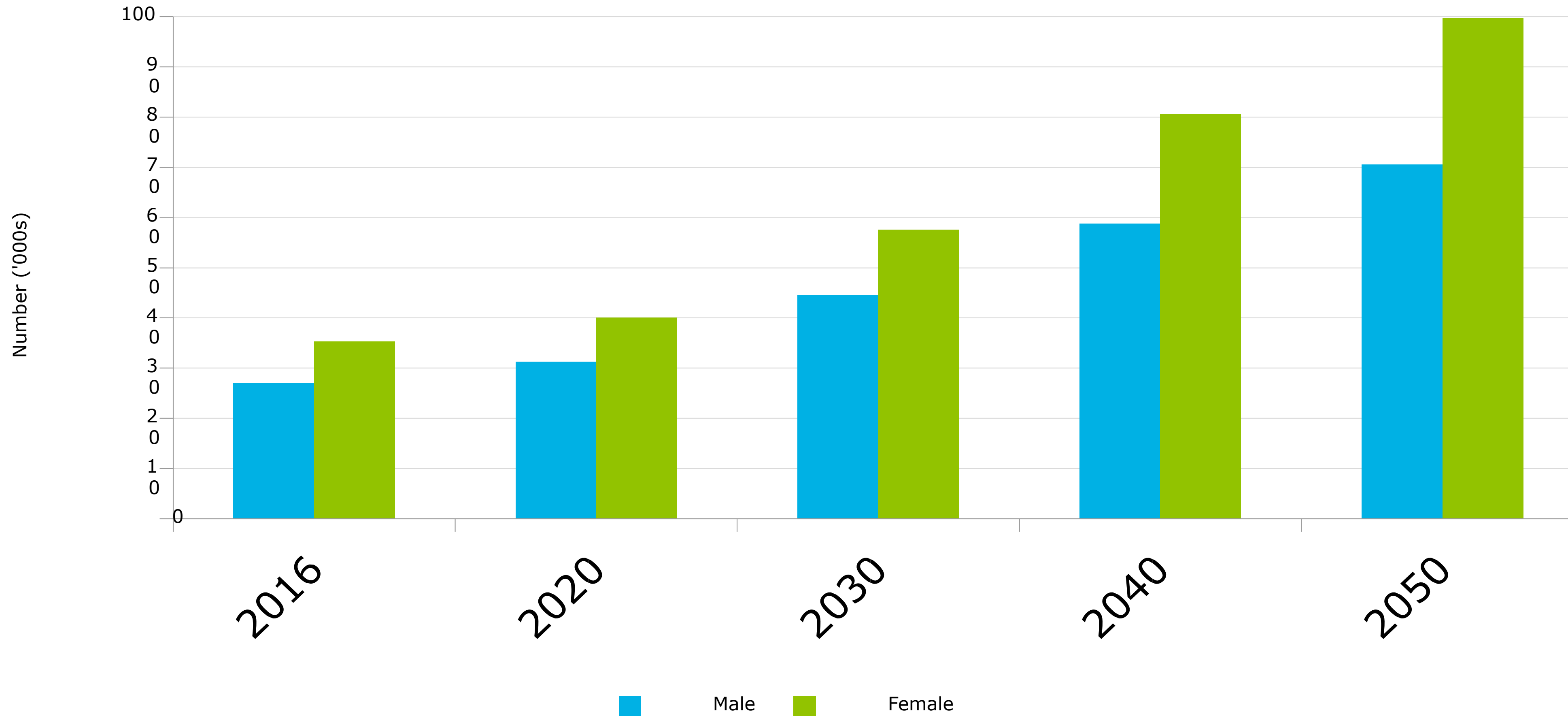
Aging population



Source: Stats NZ

Prevalence projections by gender, New Zealand, 2016 to 2050



Source: Deloitte Access Economics calculations

DSM-5: "Major Neurocognitive Disorder"

1. **There is evidence of substantial cognitive decline from a previous level of performance in one or more of the domains outlined.**
    - **complex attention,**
    - **learning and memory,**
    - **executive ability,**
    - **language,**
    - **visuoconstructional-perceptual ability, and**
    - **social cognition**
2. **The cognitive deficits are sufficient to interfere with functional and instrumental independence.**
3. **The cognitive deficits do not occur exclusively in the context of a Delirium, and**
4. **The cognitive deficits are not primarily attributable to another mental disorder (e.g. depression, schizophrenia).**

When to screen?

- - 45+ health check (risk factors)
- - 75+ health check – routinely ask about cognitive difficulties
  - Driver licence renewal
- - Those with chronic disease
- - patient and family raising concerns
- - “vague patients”

Formal cognitive screen

- GPCog
  - Fast, sensitivity ~89-96%, specificity ~62%, online, multiple languages
  - www.gpcog.com.au
- MMSE
  - Longer test, similar sensitivity as GPCog, copy right issue
- MOCA +/- IQCODE (educational level dependent)
- RUDAS (good for English as second language)
- ACE-III (more time consuming)

However, don't rely on numbers. Consider clinical history, reported functional deficit related to the cognitive impairment and importantly, collateral history from family/ friends..

Pattern of deficit is key

Functional impairment

- Remember recent events/interest (news, sports)
- Recalling important conversation few days later
- Losing/misplacing items
- Able to use electronics
- Learn new things
- Handle money/pay bills
- Personal Hygiene

- Prepare meals
  - Unexplained weight loss
- Driving
  - Accidents/family concerns
- Manage medication
  - Testsafe dispensing
  - Sudden poorly controlled DM/HT

Specific driving screen/tools/guideline

- ACE-III <75 (regional guidelines)
- Trail A (>60 seconds) + B (>180 seconds)
- SIMARD – unhelpful unless obvious fail
- Drive safe/drive aware app
- Family concerns (grandchild test!)

Dementia Stage	Typical Cognitive Scores*	Cognitive and Functional levels
No Dementia	MMSE:> 27/30 ACE-III:> 90/100 MOCA :> 26/30 RUDAS:>26/30	**No cognitive impairment:** Normal memory and cognition Independent function Competent in home, work and hobbies
Mild Cognitive Impairment	MMSE: 24 – 27/30 ACE-III: 80-90/100 MOCA:18 – 26/30 RUDAS: 23-26/30	**A mild but noticeable decline in cognition:** Mild forgetfulness Mild disorientation Mild impairment in problem solving Generally independent in most activities May struggle with complex tasks
Mild Dementia	MMSE:18-23/30 ACE-III: 65-76/100 MOCA : 11-17/30 RUDAS: 17-22/30	**Definite cognitive decline and impairment** Moderate memory loss and disorientation Impaired problem solving Mild impairment in household tasks / personal cares Requires prompts or supervision with some tasks Complex tasks and roles no longer possible Social interactions often well preserved
Moderate Dementia	MMSE:10 – 18/30 ACE-III: 35 -64 /100 MOCA : 6 – 10 /30 RUDAS: 10 – 16/30	**Significant impairment of cognition/function** Marked memory loss Disorientation to time and place Decreasing ability to make judgements Decreasing ability to engage socially Decreasing ability to function independently Needs assistance with personal cares Requires supervision when leaving home May get lost when away from home Limited capacity to complete tasks in home No longer able to participate in usual activities
Severe Dementia	MMSE:<10/30 ACE-III: <35 /100 MOCA : <6 /30 (or not testable) RUDAS: <10/30	**Profound impairment of cognition / function** Severe memory impairment / disorientation Spoken language limited or lost Incontinence No capacity for making judgements High dependency on others for personal cares Unable to contribute to household chores Often unable to recognise family members Increasing loss of psychomotor skills Frequent behaviour or psychiatric complications

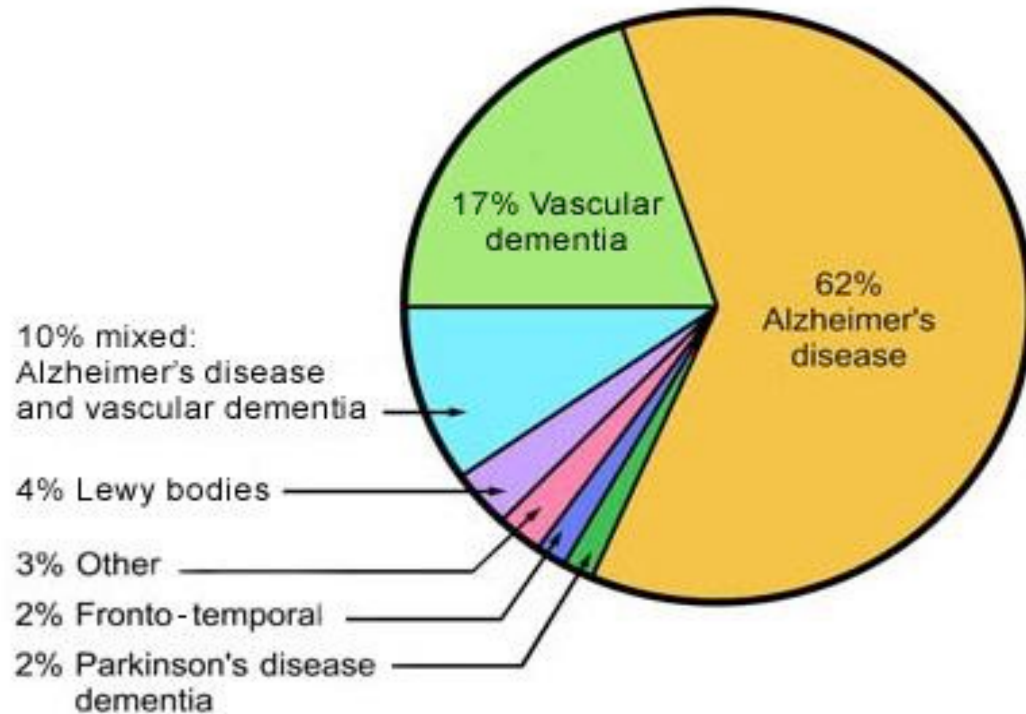
Investigation

- Physical exam – rule out organic cause/delirium/depression/ Parkinsonism/neurological event
- Bloods – electrolytes, Mg, Calcium, B12/folate, TFT (syphilis/HIV in suspicious cases)
- Neuro-imaging
- Medication review – avoid anticholinergics, correlation with new medications

Redflags

- Sudden or rapid deterioration over several weeks
- History of fall (regardless of head injury)
- Marked discrepancy with score and reported function
- Triade of gait/incontinence/cognitive impairment
- Weight loss with past/current history of malignancy

Dementia: Main Causes



Other Causes

Alcohol
Trauma
Anoxia
Huntington's Disease
Prion Diseases
Mitochondrial Disorders
Progressive Supranuclear Palsy
NPH
AIDS / Syphilis
Wilson's Disease

Depression
Delirium
Psychosis

Mangement

- Legal – EPOA, Wills (if appropriate depending on stage at diagnosis)
- Driving
- Medication – if appropriate. Compliance. Review dispensing record. Deprescribing. Blister pack. Simplify regime.
- Vascular risk – caution with aggressive BP and BSL management
- Lifestyle – regular exercise, routines, cognitive stimulation, diet, alcohol
- Local dementia society for carer support, programs
- NASC – ensure family/carer is present for assessment
- ACP – if appropriate

Medication for dementia

- **Cholinesterase Inhibitors**
- Donepezil *****
- Rivastigmine patch
- (Galantamine)
- **NMDA inhibitor**
- (Memantine)

- Alzheimer's, Lewy Body Dementia, Parkinson's dementia
- Vascular Dementia
- FTD

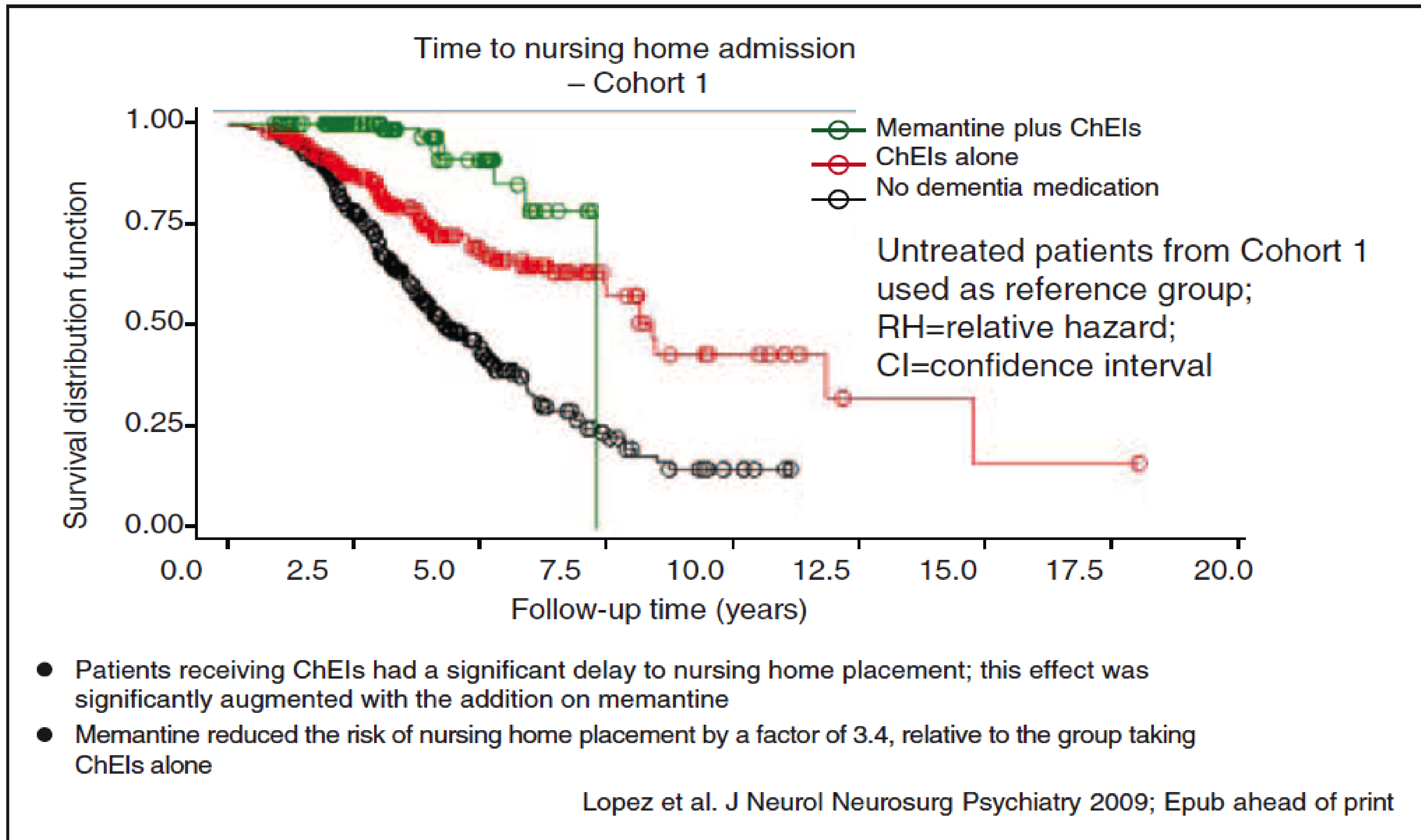


Figure 3. Long-term effects of the concomitant use of memantine with cholinesterase inhibition in AD.

Implications of diagnosis

- If unclear, label as MCI, monitor with repeat testing in 3-6 months
- Insurance cover ? Southern cross
- More likely to be declined surgery
  - Maybe a good thing in elective type surgery
  - Helps with consent process, maximising peri-operative risk, discussion about post operative delirium/cognitive decline (at least 20%)
  - More likely have in-depth consultation with NOK/EPOA

Implication for privacy/information sharing

- Individual practice protocol and adhere to it
- Assume patient competent unless proven otherwise
- Obtain consent from patient to release information
- Avoid major information release (phone in when ID can not be clarified) – best to call back on registered number
- Obtain EPOA document when this is claimed

Capacity assessment/EPOA

General principals

- Dementia ≠ lack of capacity
- No evidence of dementia – likely has capacity (beware mental health issues)
- Assume competent until proven otherwise
- Every interaction (consciously or subconsciously) is an assessment of a person‘s capacity
- Specialist opinion at that moment in time, reason and justification is key in report

Patient

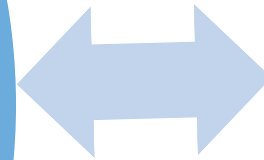
Values

Beliefs

Culture

Social

Medical



Doctor

Capacity begins….

Question about a decision

Step 1

- Be task specific
- What is the question been asked?
  - Ability to consent?
  - Making a legal document? (EPOA)
  - Making a decision about living arrangements
  - Managing finances
  - Change a will
  - Caution with a “general capacity assessment”
- Why now???
- One can not assess capacity if they don’t understand the question been asked or the consequences of it

Step 2

- Gather information (collateral)
  - Personal/legal background
  - Current level of function
  - Specific concerns (meals/weight loss/medications/safety/hygiene)
    - Can concerns be over come by other means
    - May need more targeted assessment ie OT

Step 2

- EPOA/legal status
  - Needs to be obtained and sighted
    - Beware of unsighted claims regarding who is the EPOA
  - May specify who can do the assessment
  - Property may be active on signing

  - Opinion of the EPOA for welfare should be obtained

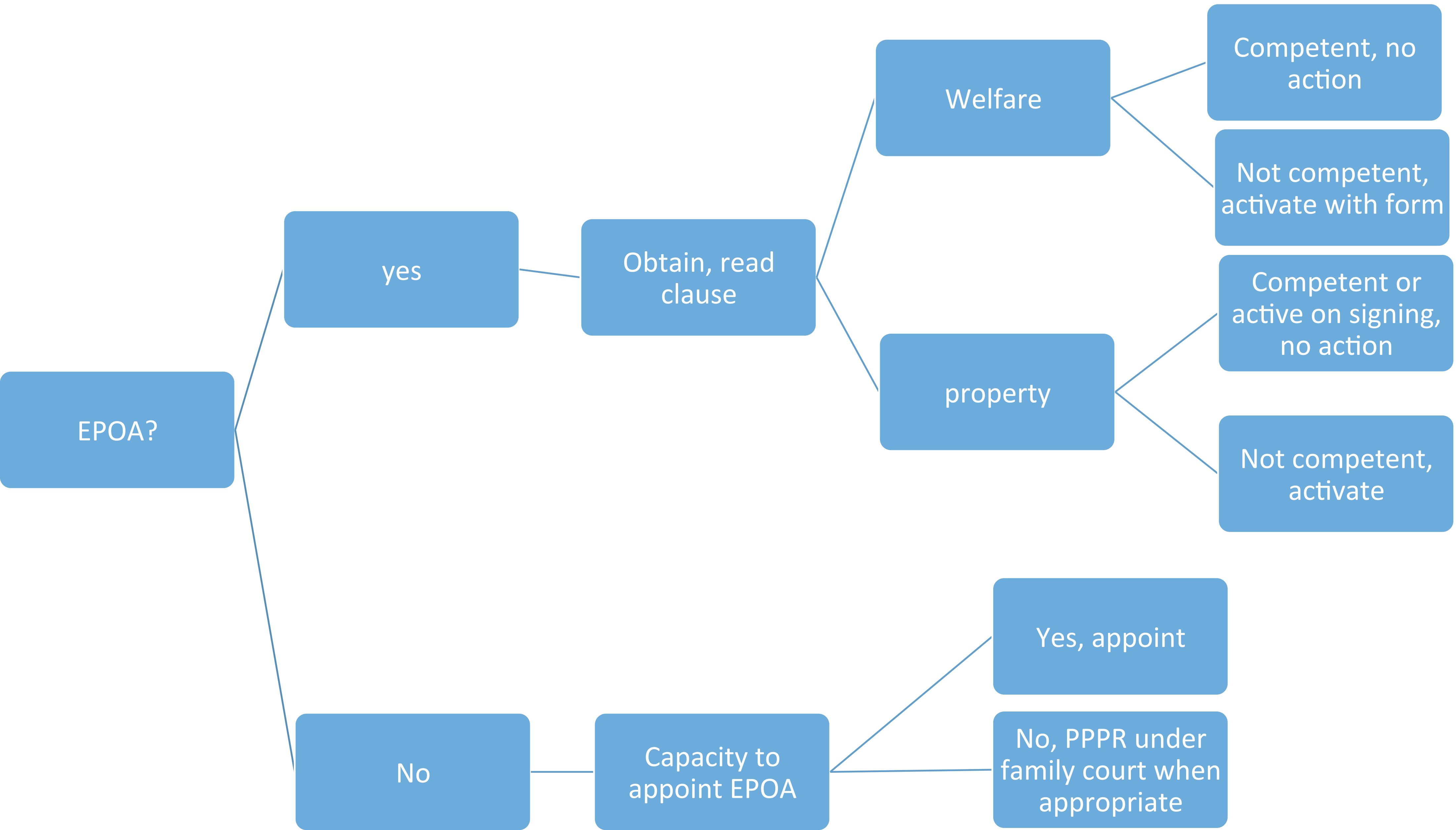
Step 3 – assessing the patient

- Is there a reversible medical reason for current mental state
- Is there a diagnosis that would impact on decision making (ie dementia/delirium/psych)

- Understand, retain and express wishes
  - (SLT/hearing aid/written aid/interpreter)
  - Family is not appropriate to act as an interpreter!
- Every interaction with the "patient" is either a direct or indirect assessment
- Ask "why" they have made the particular decision
- What are the other potential options
- Is the decision consistent or easily influenced
- Cognitive testing (score helpful but doesn't determine conclusion)

Step 4 – conclusion and documentation

- Clear documentation
  - Verbatim
- Logical thought process
  - Understand, retain, process options and express
- Consider duration of impairment
  - Reassessment if possibility of improvement
- Consider least restrictive measures
- Specific format for
  - activation of EPOA
  - medical certificate for application under PPPR act
- Second opinion for complex cases


EPOA?
yes
Obtain, read clause
Welfare
Competent, no action
Not competent, activate with form
property
Competent or active on signing, no action
Not competent, activate
No
Capacity to appoint EPOA
Yes, appoint
No, PPPR under family court when appropriate

Case study

- 54 year old man
- Referred for capacity for “legal matters involving complex financial transactions” - ? Guarantor for mortgage involving son

Case study

- 78 year old lady, referred for capacity to change EPOA