



a place of mind

THE UNIVERSITY OF BRITISH COLUMBIA

Cognitive Impairment, Testamentary Capacity and Susceptibility to Undue Influence

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Disclosure

- Committee member, “Undue Influence Recognition & Prevention: A Guide for Legal Practitioners”. BC Law Institute, 2022.
- Private capacity assessment work



Dementia and Mild Cognitive Impairment

DSM-5 Nomenclature

- Major Neurocognitive Disorder = Dementia
 - Severity: mild, moderate, severe
- Mild Neurocognitive Disorder = Mild Cognitive Impairment (MCI)

Prevalence and Incidence of Dementia in Canada: 2022-2023

Age Group	65-79	80+	90+	Total
Dementia Prevalence	138,255	348,730	135,470	622,455
Dementia Prevalence Rate	2.37%	17.24%	29.04%	8.7%
Incidence Rate of Dementia (per 100,000)	610	3669	6189	10,468

Does not include prevalence and incidence age < 65 yrs old

Source: Canadian Chronic Disease Surveillance System, Gov. of Canada

Prevalence

- Major Neurocognitive Disorder = Dementia
 - Anticipated to be 1 million Canadians with dementia by 2030
- Mild Neurocognitive Disorder = Mild Cognitive Impairment (MCI)
 - as high as 22% of those aged 71 years and older
 - Avg. annual rate of progression of 12% in the general population and up to 20% in populations at higher risk (3-5x more likely if MCI vs. normal)
 - Some may never progress, or even reverse to normal

- 81 year old widow, AZ, with disability from heart and lung disease. These limit her mobility, so she relies on her Son to help.
- Daughter concerned that Mother is not paying bills on time and giving away money to her Son, who is unemployed and lives in the basement of the family home. Daughter is seeking an enduring power of attorney and wants Mother's GP to assess AZ for financial capacity.
- The physician talks to AZ and decides that her memory seems fine based on a score on her MMSE of 28/30 (can remember 2 out of 3 words, got the day wrong) so concludes AZ is capable.

Normal

- no deterioration from young

Age-consistent loss

- average for age

Subjective Memory Loss

Mild Cognitive Impairment

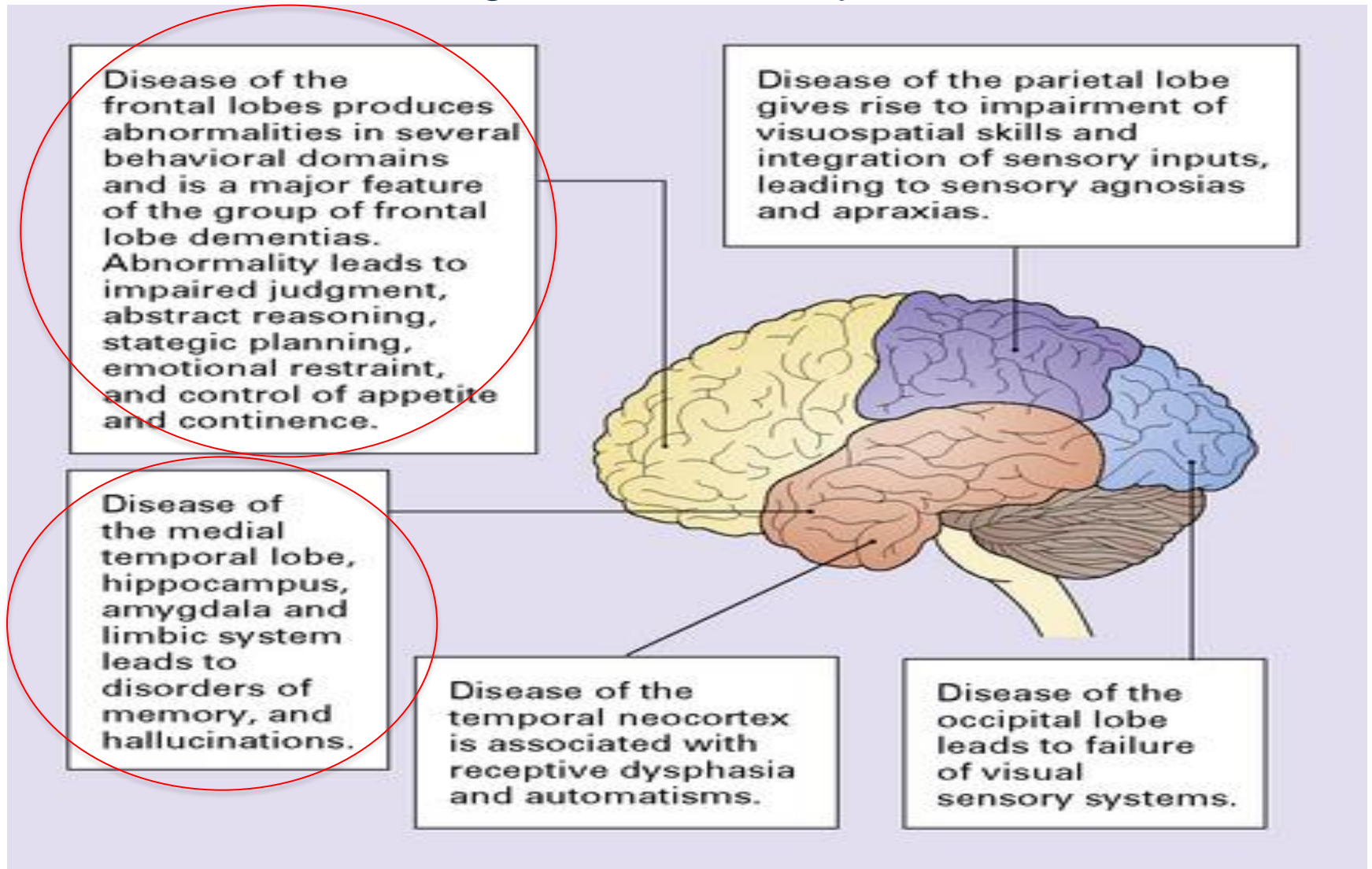
- 1.5 SD > Normal of age and education matched controls

Dementia

Alzheimer's Disease Progression

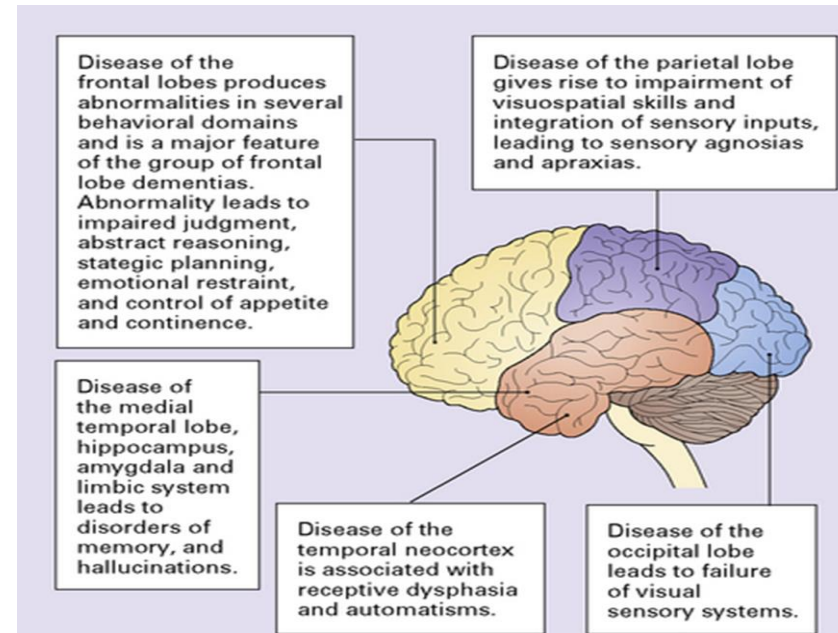
-adapted from Chertkow & Murtha, 1998

Brain Regions Affected by Dementia



Major Causes of Dementia (MNCD)

- Alzheimer's Disease (AD)
- Vascular Dementia (VD)
- Mixed Dementia (AD + VD most commonly)
- Dementia with Lewy Bodies
- Frontotemporal Dementia



Alzheimer's Disease Stages

Mild Cognitive Impairment



Duration: 7 years

Disease begins in Medial Temporal Lobe

Symptoms:
Short-term memory loss

Mild Alzheimer's



Duration: 2 years

Disease spreads to Lateral Temporal & Parietal Lobes

Symptoms include:
Reading problems
Poor object recognition
Poor direction sense

Moderate Alzheimer's



Duration: 2 years

Disease spreads to Frontal Lobe

Symptoms include:
Poor judgment
Impulsivity
Short attention

Severe Alzheimer's



Duration: 3 years

Disease spreads to Occipital Lobe

Symptoms include:
Visual problems



Diagnosis



DSM V Diagnostic Criteria

Major/Mild Neurocognitive Disorder - NCD

- Decline from previous abilities with deficits in at least 1 area:
 - Complex attention
 - Executive function
 - Learning and memory
 - Language
 - Perceptual - Motor - Visual perception, praxis
 - Social cognition

- Functional impairment (Dementia) or unimpaired (MCI) – IADLs and ADLs



Functional Assessment:

Lawton and Brody (1969); Katz (1970)

Activities of Daily Living (ADL's)	Instrumental Activities of Daily Living (IADL's)
<p>Bathing</p> <p>Ability to Transfer</p> <p>Dressing</p> <p>Toileting</p> <p>Grooming</p> <p>Feeding self</p> <p>Moderate Dementia: usually require assistance of at least 1 ADL</p>	<p>Telephone use</p> <p>Shopping</p> <p>Food preparation</p> <p>Laundry</p> <p>Motor transportation</p> <p>Self-medication ability</p> <p>Managing financial affairs</p>



GLOBAL DETERIORATION SCALE (GDS)

Stage	Deficits in cognition and function	Usual care setting
1	Subjectively and objectively normal	Independent
2	<ul style="list-style-type: none"> Subjective complaints of mild memory loss. Objectively normal on testing. No functional deficit 	Independent
3	Mild Cognitive Impairment (MCI) <ul style="list-style-type: none"> Earliest clear-cut deficits. Functionally normal but co-workers may be aware of declining work performance. Objective deficits on testing. Denial may appear. 	Independent
4	Early dementia <ul style="list-style-type: none"> Clear-cut deficits on careful clinical interview. Difficulty performing complex tasks, e.g. handling finances, travelling. Denial is common. Withdrawal from challenging situations. 	Might live independently – perhaps with assistance from family or caregivers.
5	Moderate dementia <ul style="list-style-type: none"> Can no longer survive without some assistance. Unable to recall major relevant aspects of their current lives, e.g. an address or telephone number of many years, names of grandchildren, etc. Some disorientation to date, day of week, season, or to place. They require no assistance with toileting, eating, or dressing but may need help choosing appropriate clothing. 	At home with live-in family member. In seniors' residence with home support. Possibly in facility care, especially if behavioural problems or comorbid physical disabilities.
6	Moderately severe dementia <ul style="list-style-type: none"> May occasionally forget name of spouse. Largely unaware of recent experiences and events in their lives. Will require assistance with basic ADLs. May be incontinent of urine. Behavioural and psychological symptoms of dementia (BPSD) are common, e.g., delusions, repetitive behaviours, agitation. 	Most often in Complex Care facility.
7	Severe dementia <ul style="list-style-type: none"> Verbal abilities will be lost over the course of this stage. Incontinent. Needs assistance with feeding. Loses ability to walk. 	Complex Care

Adapted by Dr. Doug Drummond from Reisberg B, Ferris SH, Leon MJ, et al. The global deterioration scale for assessment of primary degenerative dementia. American Journal of Psychiatry 1982;139:1136-1139.

<https://www2.gov.bc.ca/assets/gov/health/health-drug-coverage/pharmacare/gds.pdf>

Cognitive Screening Tools

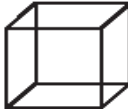
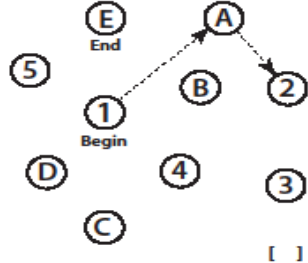


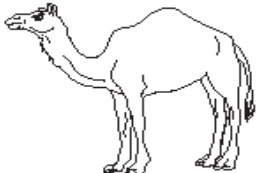
- Mini-mental status exam=MMSE (Folstein 1975)
 - Screen for dementia—positive screen if 23 or below
 - Score of 26 or below usually raises concern surrounding possible dementia or MCI (BC guide)
- Montreal Cognitive Assessment=MOCA (Nasreddine 2005)
 - <https://mocacognition.com/> Virtual, visually impaired, different language versions available.
 - Distinguishes abnormal cognitive function
 - Cutoff score of 26—positive screen if 25 or below
 - Add one point depending if ≤ 12 years education
 - Certification process since 2020

MOCA

- 8.1
- 8.2
- 8.3

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

MONTREAL COGNITIVE ASSESSMENT (MOCA)

VISUOSPATIAL / EXECUTIVE		 Copy cube <input type="checkbox"/>	Draw CLOCK (Ten past eleven) (3 points) <input type="checkbox"/>	POINTS																		
 <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																		
NAMING		 <input type="checkbox"/>	 <input type="checkbox"/>	 <input type="checkbox"/>	<input type="checkbox"/>																	
MEMORY		Read list of words, subject must repeat them. Do 2 trials, even if 1st trial is successful. Do a recall after 5 minutes.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td></td> <td style="text-align: center;">FACE</td> <td style="text-align: center;">VELVET</td> <td style="text-align: center;">CHURCH</td> <td style="text-align: center;">DAISY</td> <td style="text-align: center;">RED</td> </tr> <tr> <td style="text-align: center;">1st trial</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">2nd trial</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>		FACE	VELVET	CHURCH	DAISY	RED	1st trial						2nd trial						No points
	FACE	VELVET	CHURCH	DAISY	RED																	
1st trial																						
2nd trial																						
ATTENTION		Read list of digits (1 digit/ sec.). Subject has to repeat them in the forward order <input type="checkbox"/> 2 1 8 5 4 Subject has to repeat them in the backward order <input type="checkbox"/> 7 4 2			<input type="checkbox"/>																	
LANGUAGE		Repeat: I only know that John is the one to help today. <input type="checkbox"/> The cat always hid under the couch when dogs were in the room. <input type="checkbox"/>			<input type="checkbox"/>																	
ABSTRACTION		Similarity between e.g. banana - orange = fruit <input type="checkbox"/> train - bicycle <input type="checkbox"/> watch - ruler <input type="checkbox"/>			<input type="checkbox"/>																	
DELAYED RECALL		Has to recall words WITH NO CUE <input type="checkbox"/> FACE <input type="checkbox"/> VELVET <input type="checkbox"/> CHURCH <input type="checkbox"/> DAISY <input type="checkbox"/> RED <input type="checkbox"/> Category cue <input type="checkbox"/> Multiple choice cue <input type="checkbox"/>			<input type="checkbox"/>																	
ORIENTATION		<input type="checkbox"/> Date <input type="checkbox"/> Month <input type="checkbox"/> Year <input type="checkbox"/> Day <input type="checkbox"/> Place <input type="checkbox"/> City			<input type="checkbox"/>																	
Optional					<input type="checkbox"/>																	
TOTAL					<input type="checkbox"/>																	

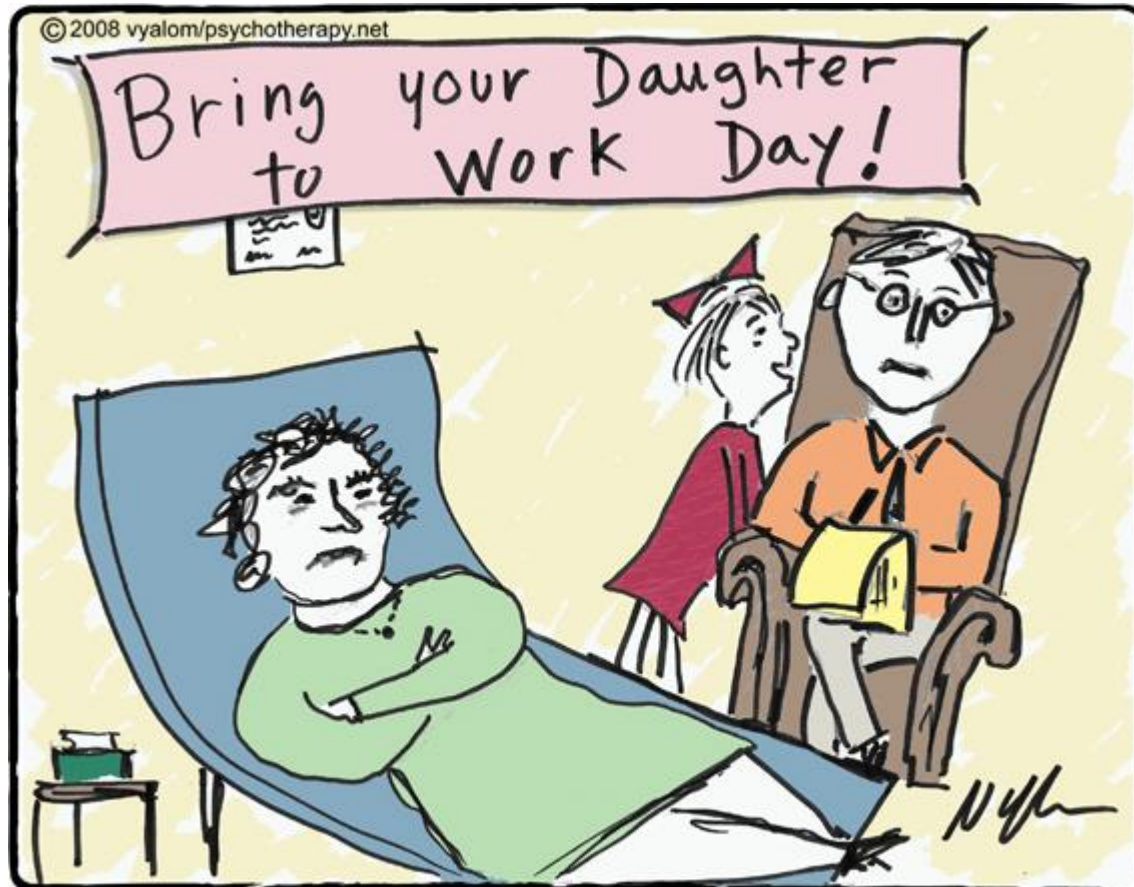
© Z.Nasreddine MD Version 7.1 www.mocatest.org Normal ≥ 26 / 30
 Administered by: _____

Take Home Points—Screening Tools

- A “positive” score on a cognitive screening tool does not necessarily indicate the presence of dementia or MCI—need to match with functional abilities. A score is not predictive of capacity vs. incapacity
- Other factors influencing the result
 - Education level, ethnicity/language
 - Effort, Sub-optimization of sensory input
 - Presence of depression or delirium
 - Limitations of virtual assessments



Assessment



"C'mon Daddy, say something!"



General Principles

- Optimize sensory input and comfort
- General principle is to interview client alone, esp. if UI is suspected
- With a language barrier, the use of a professional interpreter is highly recommended since employing family members or friends can be potentially (though not necessarily by intention) misleading or inaccurate.
- Wills, Estates And Succession Amendment Act, 2020 allows for audiovisual assessments. Especially in the older adult with sensory and/or cognitive impairment, video assessment should be postponed in favour of an assessment in-person instead. Essential for in-person assessment if serious concerns of UI are raised.

Interview of the Patient/Client

- Appearance, body language
- Inattention—rule out delirium
- Withdrawn, not engaging—rule out depression
- Repeating answers, stories
- Word-finding difficulties
- Poor short-term memory leading to inconsistency
- Anxiety, Fear—rule anxiety disorder, paranoia

Remember that someone seeming to be “normal” may still have substantial executive dysfunction that can impact on TC and SUI.

Financial Capacity Assessment

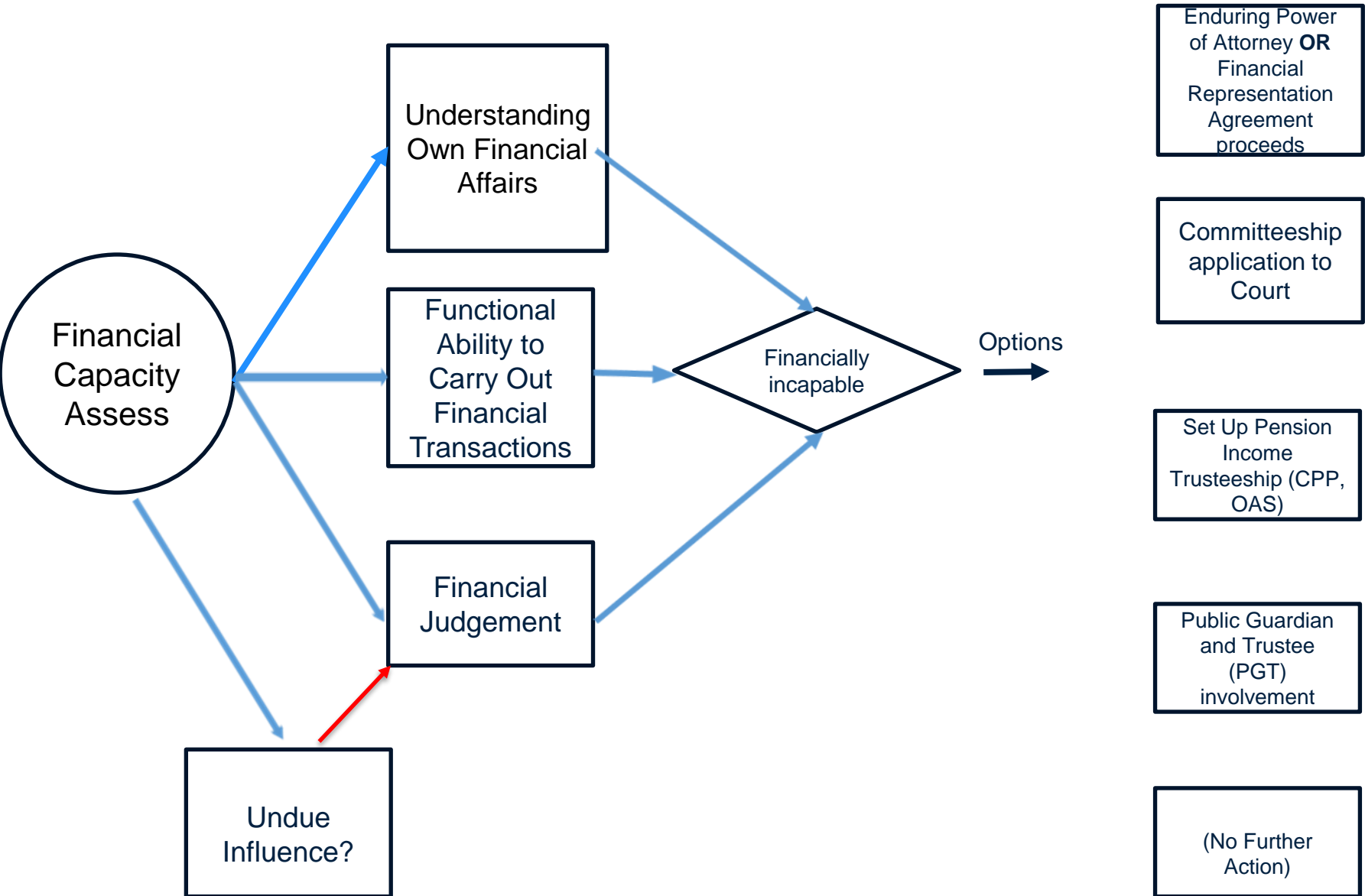
- Understanding
 - Income, Expenses, Assets, Liabilities
 - Those supporting one's financial abilities
- Functional Ability
 - Execute financial transactions
 - Counting, calculation, writing cheques, bank app
- Judgement
 - Impulse control, weigh benefits/costs, limitations
 - Allow assistance judiciously when needed. UI?



After the assessment



WE NEED A PLAN FOR MOM'S CARE: ONE DOES ALL THE WORK; ONE GOES AWOL; ONE UNDERCUTS OUR DECISIONS; ONE STEALS HER STUFF.





“Practice guidelines for incapability assessments”.
Office of the Public Guardian and Trustee (BC):

- Google “public trustee incapacity tools bc”

<https://www.trustee.bc.ca/sites/default/files/2024-02/practice-guidelines-incapability-assessment.pdf>