### Appendix A: Dementia Sub-types

#### Alzheimer's disease (AD)
- Cognitive changes that are of gradual onset over months to years.
- Two of the following cognitive domains are impaired: memory, language, visuospatial or executive function (memory impairment is the most common presentation).
- Impairment causes a significant functional decline in usual activities or work.
- Symptoms are not explained by other neurologic disorder (including cerebrovascular disease), psychiatric disorder, systemic disorder or medication.

#### Vascular dementia (VaD)
- Cerebrovascular disease is a heterogeneous disorder: clinically overt or covert disease, large or small vessel disease, and cortical or subcortical location.
- There are differing criteria for the diagnosis of vascular dementia, resulting in varying prevalence rates.
- Small vessel disease is common in the elderly (in multiple body systems), and often co-exists with AD. It is not benign and represents an important risk factor for future overt stroke, for gait problems and falls, for urinary incontinence and for cognitive and behavioural decline.
- Clinical assessment and neuroimaging evidence support the diagnosis.
- Current recommendations suggest screening for vascular cognitive impairment in patients with clinical stroke, covert lacunar or white matter lesions on neuroimaging, and when there is damage to target organs (such as kidney and eyes).
- Typically, executive dysfunction and speed of cognitive processing are impacted earlier on in vascular dementia, and memory loss is a later feature. Hence, the MOCA is the preferred cognitive screening tool when VaD is suspected.

#### Mixed AD/VaD
- The degenerative changes of AD and the vascular changes of VaD commonly co-exist. Most common presentation is AD pattern with significant vascular risk factors +/- small vascular events.

#### Dementia with Lewy bodies (DLB)
- Core features:
  - Fluctuating cognition with pronounced variation in attention and alertness (memory decline may not be an early feature)
  - Recurrent visual hallucinations that are well formed and detailed
  - Spontaneous motor features of Parkinsonism.
- Features supportive of diagnosis:
  - Repeated falls
  - Syncope or transient loss of consciousness
  - Hypersensitivity to antipsychotics (typical and atypical)
  - Systematized delusions; non-visual hallucinations.
- DLB has reduced prevalence of resting tremor and reduced response to L-dopa compared to idiopathic Parkinson's disease dementia.
- Presence of REM sleep disorder in the setting of a dementia suggests DLB & related conditions.
- Dementia should occur before or concurrently with onset of Parkinsonism for DLB diagnosis.

#### Parkinson's disease dementia (PDD)
- The cognitive features may appear similar to DLB (deficits in attention and alertness).
- For PDD diagnosis, look for motor Parkinsonian symptoms that typically are present many years before the onset of the dementia.

#### Frontotemporal dementia
- Insidious onset and gradual progression; tends to present in middle-aged patients.
- Personality changes present early and include apathy, disinhibition, executive function failure alone or in combination.
- Relatively preserved memory, perception, spatial skills and praxis.
- Behavioural disorder supportive of diagnosis: decline in hygiene, mental rigidity, distractibility, hyperorality, perseveration.
- Prominent language changes frequently occur with reduction in verbal output.