

**Canadian Study of Health and Aging - 3**

**CLINICAL ASSESSMENT**

**CONSENSUS DIAGNOSTIC OPINION**

English: 1

**To reach 'Part 1 - Final Diagnosis' the following are reviewed:**

**Screening Questionnaire**

**Informant or Caregiver Interview**

**Clinical Assessment, Section 1: Clinician's Evaluation**

**Clinical Assessment, Section 2: Clinician's Preliminary Diagnostic Opinion**

**Neuropsychological Assessment, including Score Sheets and Evaluation**

Complete	1
Incomplete	2

	YES	NO
Edited	1	2
Editor's #		

Date of consensus conference      /      /       
dd mm yyyy

**NOTE:**       **Circle only one of the diagnostic categories A to F. Fill in more detail where appropriate. Diagnoses must be made. Confidence in the diagnoses can be recorded for each diagnosis.**

**PART 1 FINAL DIAGNOSIS**

1       A. No cognitive impairment

B1. Cognitive impairment but no dementia (CIND) (circle one or more of the subcategories below)

- |  |                                    |                            |
|--|------------------------------------|----------------------------|
| 1 delirium                                       | 6 age-associated memory impairment | 15 epilepsy                |
| 2 chronic alcohol abuse                          | 7 mental retardation               | 16 socio-cultural          |
| 3 chronic drug intoxication                      | 10 cerebral vascular, stroke       | 17 social isolation        |
| 4 depression                                     | 11 general vascular                | 18 blind/deaf              |
| 5 psychiatric disease<br>(other than depression) | 12 Parkinson's disease             | 19 unknown                 |
|  | 13 brain tumour                    | 8 other, specify:<br>_____ |
|  | 14 multiple sclerosis              |                            |

B2. Specify most important of those listed in B.1 \_\_\_\_\_

C. Alzheimer's Disease (circle only one of 1 or 2):

- 1 probable
- 2 possible (circle only one of 2.1 to 2.4):
  - 2.1 atypical presentation/course (e.g. major aphasia, apraxia)  
specify: \_\_\_\_\_
  - 2.2 with vascular components
  - 2.3 with Parkinsonism (EP signs)
  - 2.4 with coexisting disease

D. Vascular dementia [ischemic score \_\_\_\_] (circle only one of 1 to 4)

- 1 of acute onset
- 2 multiple cortical infarct
- 3 subcortical
- 4 mixed cortical and subcortical

E. Other specific dementia (circle only one of 1 to 6)

- 1 Parkinson's disease
- 2 Pick's disease
- 3 Huntington's disease
- 4 Creutzfeldt-Jacob
- 5 post-head injury
- 6 other \_\_\_\_\_

F. Unclassifiable dementia

Comments \_\_\_\_\_

2       If dementia is present, estimate severity: (see criteria for severity on the back of this page)

- 1 mild           2 moderate           3 severe

## Consensus Diagnosis – Diagnostic Criteria

### CRITERIA FOR SEVERITY

(DSM-III-R. American Psychiatric Association, Washington. 1987)

**Mild:** *Although work or social activities are significantly impaired, the capacity for independent living remains, with adequate personal hygiene and relatively intact judgment.*

**Moderate:** *Independent living is hazardous, and some degree of supervision is necessary.*

**Severe:** *Activities of daily living are so impaired that continual supervision is required, e.g., unable to maintain minimal personal hygiene; largely incoherent or mute.*

### CRITERIA FOR DELIRIUM

(DSM-III-R. American Psychiatric Association, Washington. 1987)

- A. *Reduced ability to maintain attention to external stimuli (e.g. questions must be repeated because attention wanders) and to appropriately shift attention to new external stimuli (e.g. perseverates answer to a previous question).*
- B. *Disorganized thinking, as indicated by rambling, irrelevant, or incoherent speech.*
- C. *At least two of the following:*
  - (1) *reduced level of consciousness, e.g. difficulty keeping awake during examination*
  - (2) *perceptual disturbances: misinterpretations, illusions, or hallucinations*
  - (3) *disturbance of sleep-wake cycle with insomnia or daytime sleepiness*
  - (4) *increased or decreased psychomotor ability*
  - (5) *disorientation to time, place or person*
  - (6) *memory impairment, e.g. inability to learn new material, such as the names of several unrelated objects after five minutes, or to remember past events, such as history of current episode of illness*
- D. *Clinical features develop over a short period of time (usually hours to days) and tend to fluctuate over the course of a day.*
- E. *Either (1) or (2):*
  - (1) *evidence from the history, physical examination, or laboratory tests of a specific organic factor (or factors) judged to be etiologically related to the disturbance.*
  - (2) *in the absence of such evidence, an etiologic, organic factor can be presumed if the disturbance cannot be accounted for by any non-organic mental disorder, e.g. Manic Episode accounting for agitation and sleep disturbance*

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## Consensus Diagnosis – Diagnostic Criteria

### **CRITERIA FOR DEMENTIA** (DSM-III-R. American Psychiatric Association, Washington. 1987)

- A. *Demonstrable evidence of impairment in short- and long-term memory. Impairment in short-term memory (inability to learn new information) may be indicated by the inability to remember three objects after five minutes. Long-term memory impairment (inability to remember past personal information (e.g. what happened yesterday, birthplace, occupation) or facts of common knowledge (e.g. past Prime Ministers, well-known dates).*
- B. *At least one of the following:*
- (1) *impairment in abstract thinking, as indicated by inability to find similarities and differences between related words, difficulty in defining words and concepts, and other similar tasks*
  - (2) *impaired judgment, as indicated by inability to make reasonable plans to deal with interpersonal, family, and job-related problems and issues*
  - (3) *other disturbances of higher cortical function, such as aphasia (disorder of language), apraxia (inability to carry out motor activities despite intact comprehension and motor function), agnosia (failure to recognize or identify objects despite intact sensory function), and "constructional difficulty" (e.g. inability to copy three-dimensional figures, assemble blocks, or arrange sticks in specific designs)*
- C. *The disturbance in A and B significantly interferes with work or usual social activities or relationships with others.*
- D. *Not occurring exclusively during the course of Delirium.*
- E. *Either (1) or (2):*
- (1) *there is evidence from the history, physical examination, or laboratory tests of a specific organic factor (or factors) judged to be etiologically related to the disturbance*
  - (2) *in the absence of such evidence, an etiologic organic factor can be presumed if the disturbance cannot be accounted for by any nonorganic mental disorder, e.g. Major Depression accounting for cognitive impairment*

### **CRITERIA FOR PROBABLE ALZHEIMER'S DISEASE**

(McKhann G, Drachman D, Folstein M, Katzman R, Price D, Stadlan E. *Neurology* 34:939, 1984)

*The criteria for the clinical diagnosis of PROBABLE Alzheimer's disease include:*

- *dementia established by clinical examination and documented by the Mini-Mental Test, Blessed Dementia Scale or some similar examination, and confirmed by neuropsychological tests;*
- *deficits in two or more areas of cognition;*
- *progressive worsening of memory and other cognitive functions;*
- *no disturbance of consciousness*
- *onset between ages 40 and 90, most often after age 65; and*
- *absence of systemic disorders or other brain diseases that in and of themselves could account for the progressive deficits in memory and cognition.*

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7.2 Checklist for dementia (all types) (DSM-III-R criteria)		Y	N	DK	7.3 <b>Dementia</b> (DSM-III-R)	ALL criteria must be met		
						met	not met	
A	1	short-term memory impairment	1	2	8	A. 1 <b>OR</b> 2 answered yes.	1	2
	2	long-term memory impairment	1	2	8			
B	3	impaired abstract thinking	1	2	8	B.  <b>At least ONE</b> of 3 - 9 answered yes.	1	2
	4	impaired judgement	1	2	8			
	Disturbance of higher cortical function such as:							
	5	aphasia	1	2	8			
	6	apraxia	1	2	8			
	7	agnosia	1	2	8			
	8	constructional difficulty	1	2	8			
	9	personality change	1	2	8			
C	10	A & B interfere with work or IADL	1	2	8	C.  <b>ONE</b> of 10-12 answered yes.	1	2
	11	A & B interfere with social activities	1	2	8			
	12	A & B interfere with relationships with others	1	2	8			
D	13	does the disturbance occur other than during episodes of delirium?	1	2	8	D. 13 is answered yes.	1	2
E	14	evidence (from history, physical examination) of specific organic factor(s) etiologically related to the disturbance?	1	2	8	E. <b>At least ONE</b> of 14 or 15 answered yes.	1	2
	15	have you ruled out nonorganic mental disorders (such as major depression) as a possible cause of the disturbance?	1	2	8			
7.4 <b>Probable Alzheimer's Disease (NINCDS-ADRDA)</b>		6 NA			ALL criteria must be met		met	not met
AD1	dementia						1	2
AD2	deficit in two or more areas of cognition						1	2
AD3	progressive worsening						1	2
AD4	no disturbance of consciousness						1	2
AD5	onset between ages 40 and 90						1	2
AD6	absence of other systemic disorder or brain disease that could account for dementia						1	2

**REVIEW CSHA-3 CONSENSUS INFORMATION SHEET#1 NOW.  
Consensus Information Sheet#1 contains ONLY 3MS and ADLs from CSHA-2.**

**PART 2A – FINAL DIAGNOSIS**

1 A. No cognitive impairment (complete checklist 1, page 6)

B. CIND (complete ALL three parts of question B below & checklists 1 and 2, pages 6 & 7)

B1. Presentation

1 circumscribed memory impairment

2 other cognitive impairment

B2. Causes (circle one or more of those listed below)

1 delirium

7 mental retardation

15 epilepsy

2 chronic alcohol abuse

10 cerebral vascular, stroke\*

16 socio-cultural

3 chronic drug intoxication

11 general vascular\*

17 social isolation

4 depression

12 Parkinson's disease

18 blind/deaf

5 psychiatric disease

13 brain tumour

19 unknown

(other than depression)

14 multiple sclerosis

8 other, specify: \_\_\_\_\_

(\* for B.2.10 and B.2.11, complete checklist 5, pages 9 - 10)

B3. Specify most important of those listed in B2. \_\_\_\_\_

**FOR ALL DIAGNOSES BELOW**, complete checklist 2, page 7.

C. Alzheimer's Disease (circle only one of 1 or 2)

1 probable

2 possible (circle only one of 2.1 to 2.4):

2.1 atypical presentation/course (e.g. major aphasia, apraxia)  
specify: \_\_\_\_\_

2.2 with vascular components (complete checklist 5, pages 9 - 10)

2.3 with Parkinsonism (EP signs)

2.3.1 Lewy body variant (complete checklist 3, page 8)

2.4 with coexisting disease

D. Vascular dementia (complete checklist 5, pages 9 - 10)

E. Other specific dementia (circle only one of 1 to 6)

1 Parkinson's disease (complete checklist 4, page 8)

1.1 Parkinson's syndrome

1.2 Idiopathic Parkinson's

2 frontotemporal (including Pick's disease) (complete checklist 6, page 11)

3 Huntington's disease

4 Creutzfeldt-Jacob

5 post-head injury

6 other \_\_\_\_\_

F. Unclassifiable dementia

Comments \_\_\_\_\_

## Consensus Diagnosis – Diagnostic Criteria

### CRITERIA FOR GLOBAL DETERIORATION SCALE

(Reisberg B, Ferris SH, de Leon MJ, et al. *Psychopharmacol Bull* 24:661, 1988)

- Stage 1:** Normal, neither subjective nor objective evidence of cognitive deficit.
- Stage 2:** Very mild cognitive decline, with subjective evidence only of cognitive decline - considered normal for age.
- Stage 3:** Mild cognitive decline in which objective evidence of decline is manifest but subtle -the patient may have incipient or questionable dementia, age-associated memory impairment, or other problems.
- Stage 4:** Moderate cognitive decline of sufficient magnitude to meet accepted criteria for mild dementia - deficits are readily seen in the clinical interview and affect complex activities of daily living.
- Stage 5:** Moderately severe cognitive decline corresponding to a moderate severity of dementia - the deficits seen are sufficient to interfere with independent survival and functioning.
- Stage 6:** Severe cognitive decline corresponding to moderately severe dementia - deficits interfere with basic activities of daily living.
- Stage 7:** Very severe cognitive decline corresponding to severe dementia - deficits interfere with all activities of daily living.

### CRITERIA FOR FRAILTY SCALE

- 1 Very fit, well elderly. Robust, active, energetic, well motivated and fit. Such subjects commonly exercise regularly. They are the most fit group for age.
- 2 Well elderly, without active disease, but less fit than group 1.
- 3 Well elderly, with treated comorbid disease. In comparison with group 2, disease is present in these subjects. In comparison with group 4, the disease symptoms in group 3 subjects are well controlled.
- 4 Apparently vulnerable elderly. While not frankly dependent, such subjects commonly complain of being "slowed up" and/or commonly have disease symptoms.
- 5 Frail elderly with some Instrumental Activities of Daily Living dependence.
- 6 Frail elderly, with both IADL and ADL dependence.
- 7 Frail elderly, with complete ADL dependence (or terminally ill).

### CRITERIA FOR CLoND

Criterion A, B or C as reported by collateral and/or observed on measures from CSHA-2 – CSHA-3:

Criterion A: loss in memory functioning

Criterion B: loss in other area of cognitive functioning (e.g., language, judgement, abstract thinking)

Criterion C: deterioration in Activities of Daily Living

Criterion D: occurring exclusively during the course of a delirium.

**CLoND** = Criterion A (with or without B and/or C)

= Criterion B (with or without A and/or C)

Criterion C alone does not represent CLoND

If Criterion D endorsed, cannot diagnose as CLoND



FOR ALL DIAGNOSES: (circle)

- 3 Reisberg Global Deterioration: 1 2 3 4 5 6 7
- 4 Frailty Scale: 1 2 3 4 5 6 7
- 5 Was there a difference between Part 1 and Part 2A diagnostic opinions? 1 Yes 2 No  
If yes, what was the principal element in the change of diagnosis?  
 1 neuropsychological data  
 2 CT scan  
 3 research diagnostic criteria  
 4 discussion  
 5 data from Consensus Information Sheet #1  
 6 other, specify \_\_\_\_\_
- 6 Is a medical follow-up required? 1 Yes 2 No  
If yes:  
 1 by local investigator  
 2 by family physician  
 3 by neurologist  
 4 other, specify \_\_\_\_\_

<b>If diagnosis is</b>	
<b>No cognitive impairment OR CIND →</b>	<b>complete Part 2B below</b>
<b>Dementia →</b>	<b>skip to Part 3A, page 12</b>

**Part 2B - COGNITIVE LOSS BUT NO DEMENTIA**

- 1 As reported in the CAMDEX, does this subject exhibit:  
 A. loss in memory functioning 1 Yes 2 No 8 DK  
 B. loss in other area of cognitive functioning 1 Yes 2 No 8 DK  
 C. deterioration in ADLs 1 Yes 2 No 8 DK  
 D. loss occurs exclusively during the course of a delirium 1 Yes 2 No 8 DK
- 2 Based on the criteria in 1 (above), does this subject have cognitive loss but no dementia (CLoND)? 1 Yes 2 No 8 DK
- 3 How confident are you in diagnosing CLoND with the information available?  
 1 very confident  
 2 moderately confident  
 3 slightly confident  
 4 not confident at all

Comments \_\_\_\_\_

Go to Part 3A, page 12

## Consensus Diagnosis – Diagnostic Criteria

### **CRITERIA FOR CIND**

Note: *Diagnosis of CIND is made for persons who do not meet the criteria for dementia.*

*Criterion A: Memory impairment (short or long term memory)*

*Criterion B: At least one of the following:*

*B<sub>1</sub>: Impairment in abstract thinking*

*B<sub>2</sub>: Impaired judgment*

*B<sub>3</sub>: Disturbance of higher cortical functions (aphasia, apraxia, agnosia)*

*B<sub>4</sub>: Personality change*

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**CHECKLISTS**

1 Please complete this page only when diagnosis of '**no cognitive impairment**' or '**CIND**' is circled on page 4 or indicate not applicable.

Checklist 1.1 6 NA

1.1	Diagnostic checklist for CIND	Y	N	DK	1.2 <b>CIND</b> Presentation: Meets <b>1 or 2</b>	Criteria	
						met	not met
A.1	short-term memory impairment	1	2	8	1 Circumscribed memory impairment  ONLY A1 <b>and/or</b> A2 are answered YES.	1	2
A.2	long-term memory impairment	1	2	8			
B.1	impairment in abstract thinking	1	2	8	2 Other cognitive impairment (with or without memory impairment)  <b>At least one of B1 - B4 must be answered YES</b>	1	2
B.2	impaired judgement	1	2	8			
B.3	disturbance of higher cortical functions One or more of:						
	aphasia/language impairment	1	2	8			
	apraxia/motor planning impairment	1	2	8			
	agnosia	1	2	8			
	visuo-spatial impairment	1	2	8			
	other, specify:	1	2	8			
B.4	personality change	1	2	8			

Checklist 1.3 6 NA

1.3	Criteria for diagnosis of <b>NO COGNITIVE IMPAIRMENT</b>	Criteria	
		met	not met
	All of A.1, A.2 and B.1 - B.4 must be answered NO.	1	2

Complete checklist on next page, if applicable

## **Consensus Diagnosis – Diagnostic Criteria**

### **CRITERIA FOR DEMENTIA**

*(DSM-IV. American Psychiatric Association, Washington. 1994)*

*The essential feature of dementia is multiple cognitive deficits including*

- *memory impairment*

*and at least one of:*

- *aphasia*
- *apraxia*
- *agnosia*
- *disturbance in executive functioning*

*Cognitive deficits must:*

- *be sufficiently severe to cause impairment in occupational or social functioning*
- *represent a decline from a previously higher level of functioning*
- *not occur exclusively during the course of a delirium*

### **CRITERIA FOR DEMENTIA OF THE ALZHEIMER'S TYPE**

*(DSM-IV. American Psychiatric Association, Washington. 1994)*

- A. *The development of multiple cognitive deficits manifested by both*
  - (1) *memory impairment (impaired ability to learn new information or to recall previously learned information)*
  - (2) *one (or more) of the following cognitive disturbances:*
    - (a) *aphasia (language disturbance)*
    - (b) *apraxia (impaired ability to carry out motor activities despite intact motor function)*
    - (c) *agnosia (failure to recognize or identify objects despite intact sensory function)*
    - (d) *disturbance in executive functioning (i.e. planning, organizing, sequencing, abstracting)*
- B. *The cognitive deficits in Criteria A1 and A2 each cause significant impairment in social or occupational functioning and represent significant decline from a previous level of functioning.*
- C. *The course is characterized by gradual onset and continuing cognitive decline.*
- D. *The cognitive deficits in Criteria A1 and A2 are not due to any of the following:*
  - (1) *other central nervous system conditions that cause progressive deficits in memory and cognition (e.g. cerebrovascular disease, Parkinson's disease, Huntington's disease, subdural hematoma, normal-pressure hydrocephalus, brain tumor)*
  - (2) *systemic conditions that are known to cause dementia (e.g. hypothyroidism, vitamin B<sub>12</sub> or folic acid deficiency, niacin deficiency, hypercalcemia, neurosyphilis, HIV infection)*
  - (3) *substance-induced conditions*
- E. *The deficits do not occur exclusively during the course of a delirium.*
- F. *The disturbance is not better accounted for by another Axis I disorder (e.g. Major Depressive Disorder, Schizophrenia).*

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2 Please complete this checklist (based on DSM-IV criteria) for all diagnoses of B to F circled on page 4, or indicate not applicable.

Checklist 2.1 6 NA

2.1 Checklist for dementia	Y	N	DK	2.2 <b>Dementia</b> (DSM-IV)	ALL criteria must be met	
					met	not met
1 memory impairment (short <b>or</b> long term)	1	2	8	1 must be answered yes	1	2
2A aphasia	1	2	8	At least one of 2A -2D must be answered yes.	1	2
2B apraxia	1	2	8			
2C agnosia	1	2	8			
2D disturbance in executive functioning	1	2	8			
3A 1 & 2 cause significant impairment in social or occupational functioning	1	2	8	Both 3A and 3B must be answered yes.	1	2
3B 1 & 2 represent significant decline from previous level of functioning	1	2	8			
4 cognitive deficits occur <b>exclusively</b> during delirium	1	2	8	4 must be answered no.	1	2
2.3 <b>Alzheimer's Disease</b> (DSM-IV) 6 NA					ALL criteria must be met	
					met	not met
1 dementia					1	2
Course characterized by:						
2A gradual onset					1	2
2B continuing cognitive decline					1	2
3A cognitive deficits not due to other central nervous system conditions that cause progressive deficits in memory or cognition					1	2
3B cognitive deficits not due to systemic conditions known to cause dementia					1	2
3C cognitive deficits not due to substance-induced conditions					1	2
4 cognitive deficits not better accounted for by another disorder					1	2

Complete checklists on following pages as required by diagnosis selected on page 4.

## Consensus Diagnosis – Diagnostic Criteria

### **CRITERIA FOR LEWY BODY VARIANT**

*(McKeith, I.G., Perry, R.H., Fairbairn, A.F., Jabeen, S., Perry, E.K. Operational criteria for senile dementia of Lewy body type (SDLT). Psychol Med 22:911-922, 1992)*

*Lewy body variant (Must have A,B,C,D below)*

- A. *Fluctuating cognitive impairment affecting both memory and higher cortical functions (language, visuospatial, praxis or reasoning). The fluctuation is marked with the occurrence of both episodic confusion and lucid intervals, as in delirium, and is evident either on repeated tests of cognitive function or by variable performance in daily living skills.*
- B. *At least one of the following:*
  - 1) *visual and /or auditory hallucinations which are usually accompanied by secondary paranoid delusions:*
  - 2) *mild spontaneous extrapyramidal features or neuroleptic sensitivity syndrome e.e. exaggerated adverse responses to standard doses of neuroleptic medication;*
  - 3) *repeated unexplained falls and/or transient clouding of or loss of consciousness.*
- C. *Despite the fluctuating pattern, the clinical features persist over a long period of time (weeks or months) unlike delirium.*
- D. *Exclusion of past history of confirmed stroke and/or evidence of cerebral ischaemic damage on structural brain imaging.*

### **CRITERIA FOR PARKINSON'S DISEASE**

*(Rajput, A.H., Rozdilsky, B., Rajput, Alex. Accuracy of Clinical Diagnosis in Parkinsonism -- A Prospective Study. Can. J. Neurol. Sci. 1991; 18:275-278)*

*Parkinson syndrome: (2 of 3)*

- 1) *bradykinesia*
- 2) *rigidity*
- 3) *resting tremor*

*Idiopathic Parkinson's: PS (above) and both*

- 1) *No identifiable cause of PS*
- 2) *No widespread CNS lesions*

**Clinical Assessment - Consensus Diagnostic Opinion**

ID \_\_\_\_\_

Please complete the appropriate diagnostic checklists for diagnoses as indicated on page 4, or indicate not applicable.

Checklist 3.1 6 NA

3.1	Diagnostic checklist for senile dementia of the Lewy-body type	Y	N	DK	3.2 <b>SDLT</b> (McKeith criteria)	ALL criteria must be met	
						met	not met
1	fluctuating cognitive impairment affecting both memory and higher cortical functions (language, visuospatial, praxis or reasoning)	1	2	8	1 must be answered YES.	1	2
2A	visual and /or auditory hallucinations which are usually accompanied by secondary paranoid delusions	1	2	8	At least one of 2A - 2C must be answered YES.	1	2
2B	mild spontaneous extrapyramidal features or neuroleptic sensitivity syndrome e.g. exaggerated adverse responses to standard doses of neuroleptic medication	1	2	8			
2C	repeated unexplained falls and/or transient clouding of or loss of consciousness	1	2	8			
3	despite the fluctuating pattern, clinical features persist over a long period of time (weeks or months) unlike delirium	1	2	8	3 must be answered YES.	1	2
4	past history of confirmed stroke and/or evidence of cerebral ischaemic damage on structural brain imaging	1	2	8	4 must be answered NO.	1	2

Checklist 4.1 6 NA

4.1	Diagnostic checklist for Parkinson's disease	Y	N	DK	4.2 <b>Parkinson's Disease</b> (Rajput criteria)	ALL criteria must be met	
						met	not met
1	bradykinesia	1	2	8	1 Parkinson's syndrome: At least two of 1 - 3 must be answered YES.	1	2
2	rigidity	1	2	8			
3	resting tremor	1	2	8			
4	identifiable cause of Parkinson's syndrome	1	2	8	2 Idiopathic Parkinson's : Must meet criteria for Parkinson's syndrome (above), AND Both 4 and 5 must be answered NO.	1	2
5	widespread CNS lesions	1	2	8			

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## Consensus Diagnosis – Diagnostic Criteria

### **CRITERIA FOR VASCULAR DEMENTIA**

*(Roman et al., 1993 (NINDS-AIREN) Neurology 43: 250-260)*

- *Dementia (DSM-III-R and ICD-10NA)*
- *Presence of cerebrovascular disease demonstrated by history, clinical exam or neuroimaging.*
- *The two disorders must be reasonably related.*

*Forms of Vascular Dementia Include:*

*Multi-infarct dementia*

*Strategic single infarct dementia*

*Small vessel disease with dementia: Lacunes and white matter infarcts*

*Hypoperfusion*

*Hemorrhagic dementia*

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5.1 Diagnostic checklist for vascular abnormalities

Checklist 5.1 6 NA

**I. History**

- A. History of dementia or cognitive impairment without dementia** **0 1 2**  
**0 = No      1 = Yes      2 = Inadequate Information**
- B. History of stroke (definition: a focal or sometimes global disturbance of cerebral function lasting longer than 24 hours (or resulting in death), of presumed vascular cause)**
1. Number of strokes (record 0 for none) \_\_\_\_\_
  2. Number of strokes before onset of dementia/CIND \_\_\_\_\_  
 (if stroke occurred after, code 0)
  3. Months since first stroke (if no stroke, leave blank) \_\_\_\_\_
  4. Months since stroke which most recently preceded dementia/CIND \_\_\_\_\_  
 (if none, leave blank; if less than one month code 1)
- C. History of transient ischemic attacks (TIA)**
1. Number of TIA's (record 0 for none) \_\_\_\_\_
  2. Months since first TIA (if no TIA, leave blank) \_\_\_\_\_
  3. Months since TIA which most recently preceded dementia/CIND \_\_\_\_\_  
 (if none, leave blank; if less than one, code 1)
- D. History of hypotensive event (e.g. shock, dysrhythmia) prior to development of dementia/CIND** **0 1 2**  
**0 = No      1 = Yes      2 = Inadequate Information**
- E. History of clinical features thought to be associated with vascular dementia:**  
**0 = No      1 = Yes      2 = Inadequate Information**
1. Relatively early appearance of gait disturbance (small-step gait;   
 marche a petit pas, magnetic, apraxic-ataxic, or parkinsonian gait) **0 1 2**
  2. Early urinary frequency, urgency and other urinary symptoms not **0 1 2**  
 explained by urologic disease, or non-vascular neurologic disease
  3. History of unsteadiness, and frequent unprovoked falls **0 1 2**
  4. Pseudobulbar palsy **0 1 2**
  5. Personality and mood changes, abulia, depression, emotional **0 1 2**  
 incontinence
  6. Psychomotor retardation **0 1 2**
  7. Abnormal executive function **0 1 2**
  8. Stepwise progression of deficit **0 1 2**
- F. History of other possibly associated clinical features:**
1. Slowly progressive symptoms **0 1 2**
  2. Illusions, psychosis, hallucinations, delusions **0 1 2**
  3. Seizures **0 1 2**

## Consensus Diagnosis – Diagnostic Criteria

### **CRITERIA FOR VASCULAR DEMENTIA**

*(Roman et al., 1993 (NINDS-AIREN) Neurology 43: 250-260)*

- *Dementia (DSM-III-R and ICD-10NA)*
- *Presence of cerebrovascular disease demonstrated by history, clinical exam or neuroimaging.*
- *The two disorders must be reasonably related.*

*Forms of Vascular Dementia Include:*

*Multi-infarct dementia*

*Strategic single infarct dementia*

*Small vessel disease with dementia: Lacunes and white matter infarcts*

*Hypoperfusion*

*Hemorrhagic dementia*

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**II. Physical examination**

**0 = No                      1 = Yes                      2 = Inadequate Information**

- 1. Focal findings 0 1 2
- 2. Other findings suggestive of a vascular component 0 1 2

**III. Neuropsychologic test findings**

**0 = No                      1 = Yes                      2 = Inadequate Information                      6 = Not applicable**

- 1. Is the neuropsychological assessment compatible with a vascular etiology? 0 1 2 6

**IV. CT Scan findings:**

**0 = No                      1 = Yes                      2 = Inadequate Information                      6 = Not applicable**

- 1. Normal 0 1 2 6
- 2. Diffuse cerebral atrophy disproportionate for age 0 1 2
- 3. Cortical infarct(s) - list number (none = 0) \_\_\_\_\_
- 4. Subcortical infarct(s) - list number (none = 0) \_\_\_\_\_
- 5. Leukoaraiosis: (circle) 0 absent; 1 periventricular; 2 diffuse 0 1 2
- 6. Other abnormality 0 1 2  
Specify \_\_\_\_\_

**V. Other neurodiagnostic test:** (circle)

**1 MRI                      2 SPECT                      3 PET                      6**

Summarize findings:

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5.2 Vascular dementia (NINDS-AIREN criteria)		YES	NO	DK
1	dementia (DSM-III-R and ICD-10NA)	1	2	8
2	presence of cerebrovascular disease, demonstrated by at least one of:	1	2	8
2A	history	1	2	8
2B	clinical exam	1	2	8
2C	neuroimaging	1	2	8
3	dementia and cerebrovascular disease must be reasonably related	1	2	8

Go back to page 5.

## Consensus Diagnosis – Diagnostic Criteria

### CLINICAL DIAGNOSTIC FEATURES OF FRONTOTEMPORAL DEMENTIA

(The Lund Manchester Groups. *Clinical and neuropathological criteria for frontotemporal dementia*. *Journal of Neurology, Neurosurgery, and Psychiatry*. 1994; 57:416-418)

#### CORE DIAGNOSTIC FEATURES

##### *Behavioural disorder*

- *Insidious onset and slow progression*
- *Early loss of personal awareness (neglect of personal hygiene and grooming)*
- *Early loss of social awareness (lack of social tact, misdemeanours such as shoplifting)*
- *Early signs of disinhibition (such as unrestrained sexuality, violent behaviour, inappropriate jocularity, restless pacing)*
- *Mental rigidity and inflexibility*
- *Hyperorality (oral/dietary changes, over-eating, food fads, excessive smoking and alcohol consumption, oral exploration of objects)*
- *Stereotyped and perseverative behaviour (wandering, mannerisms such as clapping, singing, dancing, ritualistic preoccupation such as hoarding, toileting, and dressing)*
- *Utilisation behaviour (unrestrained exploration of objects in the environment)*
- *Distractibility, impulsivity, and impersistence*
- *Early loss of insight into the fact that the altered condition is due to a pathological change of own mental state.*

##### *Affective symptoms*

- *Depression, anxiety, excessive sentimentality, suicidal and fixed ideation, delusion (early and evanescent)*
- *Hypochondriasis, bizarre somatic preoccupation (early and evanescent)*
- *Emotional unconcern (emotional indifference and remoteness, lack of empathy and sympathy, apathy)*
- *Amimia (inertia, asponaneity).*

##### *Speech disorder*

- *Progressive reduction of speech (asponaneity and economy of utterance)*
- *Stereotypy of speech (repetition of limited repertoire of words, phrases, or themes)*
- *Echolalia and perseveration*
- *Late mutism.*

##### *Spatial orientation and praxis preserved*

*(intact abilities to negotiate the environment).*

##### *Physical signs*

- *Early primitive reflexes*

- *Early incontinence*
- *Late akinesia, rigidity, tremor*
- *Low and labile blood pressure.*

##### *Investigations*

- *Normal EEG despite clinically evident dementia*
- *Brain imaging (structural or functional, or both): predominant frontal or anterior temporal abnormality, or both*
- *Neuropsychology (profound failure on "frontal lobe" tests in the absence of severe amnesia, aphasia, or perceptual spatial disorder).*

#### SUPPORTIVE DIAGNOSTIC FEATURES

- *Onset before 65*
- *Positive family history of similar disorder in a first degree relative*
- *Bulbar palsy, muscular weakness and wasting, fasciculations (motor neuron disease).*

#### DIAGNOSTIC EXCLUSION FEATURES

- *Abrupt onset with ictal events*
- *Head trauma related to onset*
- *Early severe amnesia*
- *Early spatial disorientation, lost in surroundings, defective localisation of objects*
- *Early severe apraxia*
- *Logoclonic speech with rapid loss of train of thought*
- *Myoclonus*
- *Cortical bulbar and spinal deficits*
- *Cerebellar ataxia*
- *Choreo-athetosis*
- *Early, severe, pathological EEG*
- *Brain imaging (predominant post-central structural or functional deficit. Multifocal cerebral lesions on CT or MRI)*
- *Laboratory tests indicating brain involvement or inflammatory disorder (such as multiple sclerosis, syphilis, AIDS and herpes simplex encephalitis).*

#### RELATIVE DIAGNOSTIC EXCLUSION FEATURES

- *Typical history of chronic alcoholism*
- *Sustained hypertension*
- *History of vascular disease (such as angina, claudication).*

6	Diagnostic checklist for frontotemporal dementia	YES	NO	DK
<b>Behavioural Disorder:</b>		1	2	8
	Insidious onset and slow progression	1	2	8
	Early loss of personal awareness (neglect of hygiene and grooming)	1	2	8
	Early loss of social awareness (lack of social tact, misdemeanours)	1	2	8
	Early signs of disinhibition (unrestrained sexuality, violent behaviour, etc.)	1	2	8
	Mental rigidity and inflexibility	1	2	8
	Hyperorality (oral/dietary changes, excessive smoking/alcohol consumption, oral exploration of objects)	1	2	8
	Stereotyped & perseverative behaviour (wandering, clapping, singing, dancing)	1	2	8
	Utilisation behaviour (unrestrained exploration of objects in environment)	1	2	8
	Distractibility, impulsivity, and impersistence	1	2	8
	Early loss of insight that the altered condition is due to a pathological change of own mental state	1	2	8
<b>Affective symptoms:</b>		1	2	8
	Depression, anxiety, excessive sentimentality, suicidal & fixed ideation, delusion (early & evanescent)	1	2	8
	Hypochondriasis, bizarre somatic preoccupation (early and evanescent)	1	2	8
	Emotional unconcern (indifference and remoteness, lack of empathy and sympathy, apathy)	1	2	8
	Amimia (inertia, asponaneity)	1	2	8
<b>Speech disorder:</b>		1	2	8
	Progressive reduction of speech (asponaneity and economy of utterance)	1	2	8
	Stereotypy of speech (repetition of limited repertoire of words, phrases, or themes)	1	2	8
	Echolalia and perseveration	1	2	8
	Late mutism	1	2	8
<b>Physical signs:</b>		1	2	8
	Early primitive reflexes	1	2	8
	Early incontinence	1	2	8
	Late akinesia, rigidity, tremor	1	2	8
	Low and labile blood pressure	1	2	8
	Spatial orientation and praxis preserved (intact abilities to negotiate the environment)	1	2	8

Go back to page 5.

**REVIEW CSHA-3 CONSENSUS INFORMATION SHEET #2 NOW.**

**Consensus Information Sheet #2 contains CSHA-2 neuropsychological test results and final diagnosis.  
If Consensus Information Sheet #2 is blank, skip Parts 3A & 3B.**

**1 skip to end****2 continue****PART 3A – FINAL DIAGNOSIS**

1 A. No cognitive impairment (complete checklist 1, page 14)

B. CIND (complete ALL three parts of question B below &amp; checklists 1 and 2, pages 14 &amp; 15)

B1. Presentation

1 circumscribed memory impairment

2 other cognitive impairment

B2. Causes (circle one or more of those listed below)

1 delirium

7 mental retardation

15 epilepsy

2 chronic alcohol abuse

10 cerebral vascular, stroke\*

16 socio-cultural

3 chronic drug intoxication

11 general vascular\*

17 social isolation

4 depression

12 Parkinson's disease

18 blind/deaf

5 psychiatric disease

13 brain tumour

19 unknown

(other than depression)

14 multiple sclerosis

8 other, specify:

(\* for B.2.10 and B.2.11, complete checklist 5, pages 17 - 18)

B3. Specify most important of those listed in B2. \_\_\_\_\_

**FOR ALL DIAGNOSES BELOW, complete checklist 2, page 15.**

C. Alzheimer's Disease (circle only one of 1 or 2)

1 probable

2 possible (circle only one of 2.1 to 2.4):

2.1 atypical presentation/course (e.g. major aphasia, apraxia)

specify: \_\_\_\_\_

2.2 with vascular components (complete checklist 5, pages 17-18)

2.3 with Parkinsonism (EP signs)

2.3.1 Lewy body variant (complete checklist 3, page 16)

2.4 with coexisting disease

D. Vascular dementia (complete checklist 5, pages 17-18)

E. Other specific dementia (circle only one of 1 to 6)

1 Parkinson's disease (complete checklist 4, page 16)

1.1 Parkinson's syndrome

1.2 Idiopathic Parkinson's

2 frontotemporal (including Pick's disease) (complete checklist 6, page 19)

3 Huntington's disease

4 Creutzfeldt-Jacob

5 post-head injury

6 other \_\_\_\_\_

F. Unclassifiable dementia

Comments \_\_\_\_\_

## Consensus Diagnosis – Diagnostic Criteria

### **CRITERIA FOR GLOBAL DETERIORATION SCALE**

*(Reisberg B, Ferris SH, de Leon MJ, et al. Psychopharmacol Bull 24:661, 1988)*

- Stage 1:** *Normal, neither subjective nor objective evidence of cognitive deficit.*
- Stage 2:** *Very mild cognitive decline, with subjective evidence only of cognitive decline - considered normal for age.*
- Stage 3:** *Mild cognitive decline in which objective evidence of decline is manifest but subtle -the patient may have incipient or questionable dementia, age-associated memory impairment, or other problems.*
- Stage 4:** *Moderate cognitive decline of sufficient magnitude to meet accepted criteria for mild dementia - deficits are readily seen in the clinical interview and affect complex activities of daily living.*
- Stage 5:** *Moderately severe cognitive decline corresponding to a moderate severity of dementia - the deficits seen are sufficient to interfere with independent survival and functioning.*
- Stage 6:** *Severe cognitive decline corresponding to moderately severe dementia - deficits interfere with basic activities of daily living.*
- Stage 7:** *Very severe cognitive decline corresponding to severe dementia - deficits interfere with all activities of daily living.*

### **CRITERIA FOR FRAILTY SCALE**

- 1** *Very fit, well elderly. Robust, active, energetic, well motivated and fit. Such subjects commonly exercise regularly. They are the most fit group for age.*
- 2** *Well elderly, without active disease, but less fit than group 1.*
- 3** *Well elderly, with treated comorbid disease. In comparison with group 2, disease is present in these subjects. In comparison with group 4, the disease symptoms in group 3 subjects are well controlled.*
- 4** *Apparently vulnerable elderly. While not frankly dependent, such subjects commonly complain of being "slowed up" and/or commonly have disease symptoms.*
- 5** *Frail elderly with some Instrumental Activities of Daily Living dependence.*
- 6** *Frail elderly, with both IADL and ADL dependence.*
- 7** *Frail elderly, with complete ADL dependence (or terminally ill).*

### **CRITERIA FOR CLoND**

*Criterion A, B or C as reported by collateral and/or observed on measures from CSHA-1 – CSHA-2:*

*Criterion A: loss in memory functioning*

*Criterion B: loss in other area of cognitive functioning (e.g., language, judgement, abstract thinking)*

*Criterion C: deterioration in Activities of Daily Living*

*Criterion D : occurring exclusively during the course of a delirium.*

**CLoND** = Criterion A (with or without B and/or C)

= Criterion B (with or without A and/or C)

Criterion C alone does not represent CLoND

If Criterion D endorsed, cannot diagnose as CLoND

**Clinical Assessment - Consensus Diagnostic Opinion**

**ID** \_\_\_\_\_

FOR ALL DIAGNOSES: (circle)

- |   |   |   |  |   |    |   |   |   |
|---|---|---|--|---|----|---|---|---|
| 3 | Reisberg Global Deterioration:  | 1 | 2  | 3 | 4  | 5 | 6 | 7 |
| 4 | Frailty Scale:  | 1 | 2  | 3 | 4  | 5 | 6 | 7 |
| 5 | Was there a difference between Part 2A and Part 3A diagnostic opinions?<br><u>If yes</u> , what was the principal element in the change of diagnosis? | 1 | Yes  | 2 | No |   |   |   |
|   |   | 1 | neuropsychological data                    |   |    |   |   |   |
|   |   | 2 | CT scan                                    |   |    |   |   |   |
|   |   | 3 | research diagnostic criteria               |   |    |   |   |   |
|   |   | 4 | discussion                                 |   |    |   |   |   |
|   |   | 5 | data from C onsensus In formation Sheet #2 |   |    |   |   |   |
|   |   | 6 | other, specifi _____                       |   |    |   |   |   |
| 6 | Is a medical follow-up required?<br><u>If yes</u> :   | 1 | Yes  | 2 | No |   |   |   |
|   |   | 1 | by local investigator                      |   |    |   |   |   |
|   |   | 2 | by family physician                        |   |    |   |   |   |
|   |   | 3 | by neurologist                             |   |    |   |   |   |
|   |   | 4 | other, specifi _____                       |   |    |   |   |   |

<b>If diagnosis is</b>	
<b>No cognitive impairment OR CIND →</b>	<b>complete Part 3B below</b>
<b>Dementia →</b>	<b>end</b>

**Part 3B - COGNITIVE LOSS BUT NO DEMENTIA**

- |   |  |   |                      |      |      |
|---|--|---|----------------------|------|------|
| 1 | As reported in the CAMDEX, does this subject exhibit:  |   |                      |      |      |
|   | A. loss in memory functioning  | 1 | Yes                  | 2 No | 8 DK |
|   | B. loss in other area of cognitive functioning   | 1 | Yes                  | 2 No | 8 DK |
|   | C. deterioration in ADLs   | 1 | Yes                  | 2 No | 8 DK |
|   | D. loss occurs exclusively during the course of a delirium   | 1 | Yes                  | 2 No | 8 DK |
| 2 | Based on the criteria in 1 (above), does this subject have cognitive loss but no dementia (CLOND)? | 1 | Yes                  | 2 No | 8 DK |
| 3 | How confident are you in diagnosing CLOND with the information available?                          | 1 | very confident       |      |      |
|   |  | 2 | moderately confident |      |      |
|   |  | 3 | slightly confident   |      |      |
|   |  | 4 | not confident at all |      |      |

Comments \_\_\_\_\_



## Consensus Diagnosis – Diagnostic Criteria

### **CRITERIA FOR CIND**

Note: *Diagnosis of CIND is made for persons who do not meet the criteria for dementia.*

*Criterion A: Memory impairment (short or long term memory)*

*Criterion B: At least one of the following:*

*B<sub>1</sub>: Impairment in abstract thinking*

*B<sub>2</sub>: Impaired judgment*

*B<sub>3</sub>: Disturbance of higher cortical functions (aphasia, apraxia, agnosia)*

*B<sub>4</sub>: Personality change*

*(Back of page 13)*

**CHECKLISTS**

1 Please complete this page only when diagnosis of '**no cognitive impairment**' or '**CIND**' is circled on page 12 or indicate not applicable.

Checklist 1.1 6 NA

1.1	Diagnostic checklist for CIND	Y	N	DK	1.2 <b>CIND</b> Presentation: Meets 1 <b>or</b> 2	Criteria	
						met	not met
A.1	short-term memory impairment	1	2	8	1 Circumscribed memory impairment  ONLY A1 <b>and/or</b> A2 are answered YES.	1	2
A.2	long-term memory impairment	1	2	8			
B.1	impairment in abstract thinking	1	2	8	2 Other cognitive impairment (with or without memory impairment)  At least one of B1 - B4 must be answered YES	1	2
B.2	impaired judgement	1	2	8			
B.3	disturbance of higher cortical functions One or more of:						
	aphasia/language impairment	1	2	8			
	apraxia/motor planning impairment	1	2	8			
	agnosia	1	2	8			
	visuo-spatial impairment	1	2	8			
	other, specify:	1	2	8			
B.4	personality change	1	2	8			

Checklist 1.3 6 NA

1.3	Criteria for diagnosis of <b>NO COGNITIVE IMPAIRMENT</b>	Criteria	
		met	not met
	All of A.1, A.2 and B.1 - B.4 must be answered NO.	1	2

Complete checklist on next page, if applicable

## Consensus Diagnosis – Diagnostic Criteria

### **CRITERIA FOR DEMENTIA**

(DSM-IV. American Psychiatric Association, Washington. 1994)

*The essential feature of dementia is multiple cognitive deficits including*

- *memory impairment*
- and at least one of:*
- *aphasia*
  - *apraxia*
  - *agnosia*
  - *disturbance in executive functioning*

*Cognitive deficits must:*

- *be sufficiently severe to cause impairment in occupational or social functioning*
- *represent a decline from a previously higher level of functioning*
- *not occur exclusively during the course of a delirium*

### **CRITERIA FOR DEMENTIA OF THE ALZHEIMER'S TYPE**

(DSM-IV. American Psychiatric Association, Washington. 1994)

- A. *The development of multiple cognitive deficits manifested by both*
- (1) *memory impairment (impaired ability to learn new information or to recall previously learned information)*
  - (2) *one (or more) of the following cognitive disturbances:*
    - (a) *aphasia (language disturbance)*
    - (b) *apraxia (impaired ability to carry out motor activities despite intact motor function)*
    - (c) *agnosia (failure to recognize or identify objects despite intact sensory function)*
    - (d) *disturbance in executive functioning (i.e. planning, organizing, sequencing, abstracting)*
- B. *The cognitive deficits in Criteria A1 and A2 each cause significant impairment in social or occupational functioning and represent significant decline from a previous level of functioning.*
- C. *The course is characterized by gradual onset and continuing cognitive decline.*
- D. *The cognitive deficits in Criteria A1 and A2 are not due to any of the following:*
- (1) *other central nervous system conditions that cause progressive deficits in memory and cognition (e.g. cerebrovascular disease, Parkinson's disease, Huntington's disease, subdural hematoma, normal-pressure hydrocephalus, brain tumor)*
  - (2) *systemic conditions that are known to cause dementia (e.g. hypothyroidism, vitamin B<sub>12</sub> or folic acid deficiency, niacin deficiency, hypercalcemia, neurosyphilis, HIV infection)*
  - (3) *substance-induced conditions*
- E. *The deficits do not occur exclusively during the course of a delirium.*
- F. *The disturbance is not better accounted for by another Axis I disorder (e.g. Major Depressive Disorder, Schizophrenia).*

(Back of page 14)

2 Please complete this checklist (based on DSM-IV criteria) for all diagnoses of B to F circled on page 12, or indicate not applicable.

Checklist 2.1 6 NA

2.1 Checklist for dementia	Y	N	DK	2.2 <b>Dementia</b> (DSM-IV)	ALL criteria must be met	
					met	not met
1 memory impairment (short <b>or</b> long term)	1	2	8	1 must be answered yes	1	2
2A aphasia	1	2	8	At least one of 2A -2D must be answered yes.	1	2
2B apraxia	1	2	8			
2C agnosia	1	2	8			
2D disturbance in executive functioning	1	2	8			
3A 1 & 2 cause significant impairment in social or occupational functioning	1	2	8	Both 3A and 3B must be answered yes.	1	2
3B 1 & 2 represent significant decline from previous level of functioning	1	2	8			
4 cognitive deficits occur <b>exclusively</b> during delirium	1	2	8	4 must be answered no.	1	2
2.3 <b>Alzheimer's Disease</b> (DSM-IV) 6 NA					ALL criteria must be met	
					met	not met
1 dementia					1	2
Course characterized by:						
2A gradual onset					1	2
2B continuing cognitive decline					1	2
3A cognitive deficits not due to other central nervous system conditions that cause progressive deficits in memory or cognition					1	2
3B cognitive deficits not due to systemic conditions known to cause dementia					1	2
3C cognitive deficits not due to substance-induced conditions					1	2
4 cognitive deficits not better accounted for by another disorder					1	2

Complete checklists on following pages as required by diagnosis selected on page 12.

## Consensus Diagnosis – Diagnostic Criteria

### **CRITERIA FOR LEWY BODY VARIANT**

*(McKeith, I.G., Perry, R.H., Fairbairn, A.F., Jabeen, S., Perry, E.K. Operational criteria for senile dementia of Lewy body type (SDLT). Psychol Med 22:911-922, 1992)*

*Lewy body variant (Must have A,B,C,D below)*

- A. *Fluctuating cognitive impairment affecting both memory and higher cortical functions (language, visuospatial, praxis or reasoning). The fluctuation is marked with the occurrence of both episodic confusion and lucid intervals, as in delirium, and is evident either on repeated tests of cognitive function or by variable performance in daily living skills.*
- B. *At least one of the following:*
  - 1) *visual and /or auditory hallucinations which are usually accompanied by secondary paranoid delusions;*
  - 2) *mild spontaneous extrapyramidal features or neuroleptic sensitivity syndrome e.e. exaggerated adverse responses to standard doses of neuroleptic medication;*
  - 3) *repeated unexplained falls and/or transient clouding of or loss of consciousness.*
- C. *Despite the fluctuating pattern, the clinical features persist over a long period of time (weeks or months) unlike delirium.*
- D. *Exclusion of past history of confirmed stroke and/or evidence of cerebral ischaemic damage on structural brain imaging.*

### **CRITERIA FOR PARKINSON'S DISEASE**

*(Rajput, A.H., Rozdilsky, B., Rajput, Alex. Accuracy of Clinical Diagnosis in Parkinsonism -- A Prospective Study. Can. J. Neurol. Sci. 1991; 18:275-278)*

*Parkinson syndrome: (2 of 3)*

- 1) *bradykinesia*
- 2) *rigidity*
- 3) *resting tremor*

*Idiopathic Parkinson's: PS (above) and both*

- 1) *No identifiable cause of PS*
- 2) *No widespread CNS lesions*

**Clinical Assessment - Consensus Diagnostic Opinion**

ID \_\_\_\_\_

Please complete the appropriate diagnostic checklists for diagnoses as indicated on page 12, or indicate not applicable.

Checklist 3.1 6 NA

3.1	Diagnostic checklist for senile dementia of the Lewy-body type	Y	N	DK	3.2 <b>SDLT</b> (McKeith criteria)	ALL criteria must be met	
						met	not met
1	fluctuating cognitive impairment affecting both memory and higher cortical functions (language, visuospatial, praxis or reasoning)	1	2	8	1 must be answered YES.	1	2
2A	visual and /or auditory hallucinations which are usually accompanied by secondary paranoid delusions	1	2	8	At least one of 2A - 2C must be answered YES.	1	2
2B	mild spontaneous extrapyramidal features or neuroleptic sensitivity syndrome e.g. exaggerated adverse responses to standard doses of neuroleptic medication	1	2	8			
2C	repeated unexplained falls and/or transient clouding of or loss of consciousness	1	2	8			
3	despite the fluctuating pattern, clinical features persist over a long period of time (weeks or months) unlike delirium	1	2	8	3 must be answered YES.	1	2
4	past history of confirmed stroke and/or evidence of cerebral ischaemic damage on structural brain imaging	1	2	8	4 must be answered NO.	1	2

Checklist 4.1 6 NA

4.1	Diagnostic checklist for Parkinson's disease	Y	N	DK	4.2 <b>Parkinson's Disease</b> (Rajput criteria)	ALL criteria must be met	
						met	not met
1	bradykinesia	1	2	8	1 Parkinson's syndrome: At least two of 1 - 3 must be answered YES.	1	2
2	rigidity	1	2	8			
3	resting tremor	1	2	8			
4	identifiable cause of Parkinson's syndrome	1	2	8	2 Idiopathic Parkinson's : Must meet criteria for Parkinson's syndrome (above), AND Both 4 and 5 must be answered NO.	1	2
5	widespread CNS lesions	1	2	8			

Go back to page 13.

## Consensus Diagnosis – Diagnostic Criteria

### **CRITERIA FOR VASCULAR DEMENTIA**

*(Roman et al., 1993 (NINDS-AIREN) Neurology 43: 250-260)*

- *Dementia (DSM-III-R and ICD-10NA)*
- *Presence of cerebrovascular disease demonstrated by history, clinical exam or neuroimaging.*
- *The two disorders must be reasonably related.*

*Forms of Vascular Dementia Include:*

*Multi-infarct dementia*

*Strategic single infarct dementia*

*Small vessel disease with dementia: Lacunes and white matter infarcts*

*Hypoperfusion*

*Hemorrhagic dementia*

*(Back of page 16)*

5.1 Diagnostic checklist for vascular abnormalities

Checklist 5.1 6 NA

**I. History**

- A. History of dementia or cognitive impairment without dementia** **0 1 2**  
**0 = No      1 = Yes      2 = Inadequate Information**
- B. History of stroke (definition: a focal or sometimes global disturbance of cerebral function lasting longer than 24 hours (or resulting in death), of presumed vascular cause)**
1. Number of strokes (record 0 for none) \_\_\_\_\_
  2. Number of strokes before onset of dementia/CIND \_\_\_\_\_  
(if stroke occurred after, code 0)
  3. Months since first stroke (if no stroke, leave blank) \_\_\_\_\_
  4. Months since stroke which most recently preceded dementia/CIND \_\_\_\_\_  
(if none, leave blank; if less than one month, code 1)
- C. History of transient ischemic attacks (TIA)**
1. Number of TIA's (record 0 for none) \_\_\_\_\_
  2. Months since first TIA (if no TIA, leave blank) \_\_\_\_\_
  3. Months since TIA which most recently preceded dementia/CIND \_\_\_\_\_  
(if none, leave blank; if less than one, code 1)
- D. History of hypotensive event (e.g. shock, dysrhythmia) prior to development of dementia/CIND** **0 1 2**  
**0 = No      1 = Yes      2 = Inadequate Information**
- E. History of clinical features thought to be associated with vascular dementia:**  
**0 = No      1 = Yes      2 = Inadequate Information**
1. Relatively early appearance of gait disturbance (small-step gait;   
marche a petit pas, magnetic, apraxic-ataxic, or parkinsonian gait) **0 1 2**
  2. Early urinary frequency, urgency and other urinary symptoms not **0 1 2**  
explained by urologic disease, or non-vascular neurologic disease
  3. History of unsteadiness, and frequent unprovoked falls **0 1 2**
  4. Pseudobulbar palsy **0 1 2**
  5. Personality and mood changes, abulia, depression, emotional **0 1 2**  
incontinence
  6. Psychomotor retardation **0 1 2**
  7. Abnormal executive function **0 1 2**
  8. Stepwise progression of deficit **0 1 2**
- F. History of other possibly associated clinical features:**
1. Slowly progressive symptoms **0 1 2**
  2. Illusions, psychosis, hallucinations, delusions **0 1 2**
  3. Seizures **0 1 2**



## Consensus Diagnosis – Diagnostic Criteria

### **CRITERIA FOR VASCULAR DEMENTIA**

*(Roman et al., 1993 (NINDS-AIREN) Neurology 43: 250-260)*

- *Dementia (DSM-III-R and ICD-10NA)*
- *Presence of cerebrovascular disease demonstrated by history, clinical exam or neuroimaging.*
- *The two disorders must be reasonably related.*

*Forms of Vascular Dementia Include:*

*Multi-infarct dementia*

*Strategic single infarct dementia*

*Small vessel disease with dementia: Lacunes and white matter infarcts*

*Hypoperfusion*

*Hemorrhagic dementia*

*(Back of page 17)*

**II. Physical examination**

**0 = No                      1 = Yes                      2 = Inadequate Information**

- 1. Focal findings 0 1 2
- 2. Other findings suggestive of a vascular component 0 1 2

**III. Neuropsychologic test findings**

**0 = No                      1 = Yes                      2 = Inadequate Information                      6 = Not applicable**

- 1. Is the neuropsychological assessment compatible with a vascular etiology? 0 1 2 6

**IV. CT Scan findings:**

**0 = No                      1 = Yes                      2 = Inadequate Information                      6 = Not applicable**

- 1. Normal 0 1 2 6
- 2. Diffuse cerebral atrophy disproportionate for age 0 1 2
- 3. Cortical infarct(s) - list number (none = 0) \_\_\_\_\_
- 4. Subcortical infarct(s) - list number (none = 0) \_\_\_\_\_
- 5. Leukoaraiosis: (circle) 0 absent; 1 periventricular; 2 diffuse 0 1 2
- 6. Other abnormality 0 1 2  
Specify \_\_\_\_\_

**V. Other neurodiagnostic test:** (circle)

**1 MRI                      2 SPECT                      3 PET                      6**

Summarize findings:

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5.2 Vascular dementia (NINDS-AIREN criteria)		YES	NO	DK
1	dementia (DSM-III-R and ICD-10NA)	1	2	8
2	presence of cerebrovascular disease, demonstrated by at least one of:	1	2	8
2A	history	1	2	8
2B	clinical exam	1	2	8
2C	neuroimaging	1	2	8
3	dementia and cerebrovascular disease must be reasonably related	1	2	8

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## Consensus Diagnosis – Diagnostic Criteria

### **CLINICAL DIAGNOSTIC FEATURES OF FRONTOTEMPORAL DEMENTIA**

*(The Lund Manchester Groups. Clinical and neuropathological criteria for frontotemporal dementia. Journal of Neurology, Neurosurgery, and Psychiatry. 1994; 57:416-418)*

#### CORE DIAGNOSTIC FEATURES

##### *Behavioural disorder*

- *Insidious onset and slow progression*
- *Early loss of personal awareness (neglect of personal hygiene and grooming)*
- *Early loss of social awareness (lack of social tact, misdemeanours such as shoplifting)*
- *Early signs of disinhibition (such as unrestrained sexuality, violent behaviour, inappropriate jocularity, restless pacing)*
- *Mental rigidity and inflexibility*
- *Hyperorality (oral/dietary changes, over-eating, food fads, excessive smoking and alcohol consumption, oral exploration of objects)*
- *Stereotyped and perseverative behaviour (wandering, mannerisms such as clapping, singing, dancing, ritualistic preoccupation such as hoarding, toileting, and dressing)*
- *Utilisation behaviour (unrestrained exploration of objects in the environment)*
- *Distractibility, impulsivity, and impersistence*
- *Early loss of insight into the fact that the altered condition is due to a pathological change of own mental state.*

##### *Affective symptoms*

- *Depression, anxiety, excessive sentimentality, suicidal and fixed ideation, delusion (early and evanescent)*
- *Hypochondriasis, bizarre somatic preoccupation (early and evanescent)*
- *Emotional unconcern (emotional indifference and remoteness, lack of empathy and sympathy, apathy)*
- *Amimia (inertia, asponaneity).*

##### *Speech disorder*

- *Progressive reduction of speech (asponaneity and economy of utterance)*
- *Stereotypy of speech (repetition of limited repertoire of words, phrases, or themes)*
- *Echolalia and perseveration*
- *Late mutism.*

*Spatial orientation and praxis preserved (intact abilities to negotiate the environment).*

##### *Physical signs*

- *Early primitive reflexes*

- *Early incontinence*
- *Late akinesia, rigidity, tremor*
- *Low and labile blood pressure.*

##### *Investigations*

- *Normal EEG despite clinically evident dementia*
- *Brain imaging (structural or functional, or both): predominant frontal or anterior temporal abnormality, or both*
- *Neuropsychology (profound failure on "frontal lobe" tests in the absence of severe amnesia, aphasia, or perceptual spatial disorder).*

#### SUPPORTIVE DIAGNOSTIC FEATURES

- *Onset before 65*
- *Positive family history of similar disorder in a first degree relative*
- *Bulbar palsy, muscular weakness and wasting, fasciculations (motor neuron disease).*

#### DIAGNOSTIC EXCLUSION FEATURES

- *Abrupt onset with ictal events*
- *Head trauma related to onset*
- *Early severe amnesia*
- *Early spatial disorientation, lost in surroundings, defective localisation of objects*
- *Early severe apraxia*
- *Logoclonic speech with rapid loss of train of thought*
- *Myoclonus*
- *Cortical bulbar and spinal deficits*
- *Cerebellar ataxia*
- *Choreo-athetosis*
- *Early, severe, pathological EEG*
- *Brain imaging (predominant post-central structural or functional deficit. Multifocal cerebral lesions on CT or MRI)*
- *Laboratory tests indicating brain involvement or inflammatory disorder (such as multiple sclerosis, syphilis, AIDS and herpes simplex encephalitis).*

#### RELATIVE DIAGNOSTIC EXCLUSION FEATURES

- *Typical history of chronic alcoholism*
- *Sustained hypertension*
- *History of vascular disease (such as angina, claudication).*

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6	Diagnostic checklist for frontotemporal dementia	YES	NO	DK
	<b>Behavioural Disorder:</b>	1	2	8
	Insidious onset and slow progression	1	2	8
	Early loss of personal awareness (neglect of hygiene and grooming)	1	2	8
	Early loss of social awareness (lack of social tact, misdemeanours)	1	2	8
	Early signs of disinhibition (unrestrained sexuality, violent behaviour, etc.)	1	2	8
	Mental rigidity and inflexibility	1	2	8
	Hyperorality (oral/dietary changes, excessive smoking/alcohol consumption, oral exploration of objects)	1	2	8
	Stereotyped & perseverative behaviour (wandering, clapping, singing, dancing)	1	2	8
	Utilisation behaviour (unrestrained exploration of objects in environment)	1	2	8
	Distractibility, impulsivity, and impersistence	1	2	8
	Early loss of insight that the altered condition is due to a pathological change of own mental state	1	2	8
	<b>Affective symptoms:</b>	1	2	8
	Depression, anxiety, excessive sentimentality, suicidal & fixed ideation, delusion (early & evanescent)	1	2	8
	Hypochondriasis, bizarre somatic preoccupation (early and evanescent)	1	2	8
	Emotional unconcern (indifference and remoteness, lack of empathy and sympathy, apathy)		2	8
	Amimia (inertia, aspontaneity)	1	2	8
	<b>Speech disorder:</b>	1	2	8
	Progressive reduction of speech (aspontaneity and economy of utterance)	1	2	8
	Stereotypy of speech (repetition of limited repertoire of words, phrases, or themes)	1	2	8
	Echolalia and perseveration	1	2	8
	Late mutism	1	2	8
	<b>Physical signs:</b>	1	2	8
	Early primitive reflexes	1	2	8
	Early incontinence	1	2	8
	Late akinesia, rigidity, tremor	1	2	8
	Low and labile blood pressure	1	2	8
	Spatial orientation and praxis preserved (intact abilities to negotiate the environment)	1	2	8