



Network
 Neurological Diseases
 (ERN-RND)

 Coordinator
 Universitätsklinikum
 Tübingen — Deutschland

# SCALE TO MEASURE FRONTOTEMPORAL DEMENTIA

CDR® Dementia Staging Instrument
PLUS NACC FTLD Behavior & Language Domains

**EUROPEAN REFERENCE NETWORKS** 

FOR RARE, LOW PREVALENCE AND COMPLEX DISEASES

# Share. Care. Cure.



Endorsed by ERN-RND: 16th June 2020





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# INTRODUCTION TO THE EUROPEAN REFERENCE NETWORK FOR RARE NEUROLOGICAL DISEASES (ERN-RND)

ERN-RND is a European Reference Network established and approved by the European Union. ERN-RND is a healthcare infrastructure which focuses on rare neurological diseases (RND). The three main pillars of ERN-RND are (i) network of experts and expertise centres, (ii) generation, pooling and dissemination of RND knowledge, and (iii) implementation of e-health to allow the expertise to travel instead of patients and families.

ERN-RND unites 32 of Europe's leading expert centres in 13 Member States and includes highly active patient organizations. Centres are located in Belgium, Bulgaria, Czech Republic, France, Germany, Hungary, Italy, Lithuania, Netherlands, Poland, Slovenia, Spain and the UK.

The following disease groups are covered by ERN-RND:

- Ataxias and Hereditary Spastic Paraplegias
- Atypical Parkinsonism and genetic Parkinsons' Disease
- · Dystonia, Paroxysmal Disorder and Neurodegeneration with Brain Ion Accumulation
- Frontotemporal Dementia
- Huntingtons' Disease and other Choreas
- · Leukodystrophies

Specific information about the network, the expert centres and the diseases covered can be found at the networks web site www.ern-rnd.eu.

#### **Recommendation for clinical use:**

The European Reference Network for Rare Neurological Diseases strongly recommends the use the following scale as best clinical practice for the assessment and rating of Frontotemporal Dementia.

## **DISCLAIMER**

Clinical practice guidelines, practice advisories, systematic reviews and other guidance published, endorsed or affirmed by ERN-RND are assessments of current scientific and clinical information provided as an educational service. The information (1) should not be considered inclusive of all proper treatments, methods of care, or as a statement of the standard of care; (2) is not continually updated and may not reflect the most recent evidence (new information may emerge between the time information is developed and when it is published or read); (3) addresses only the question(s) specifically identified; (4) does not mandate any particular course of medical care; and (5) is not intended to substitute for the independent professional judgement of the treating provider, as the information does account for individual variation among patients. In all cases, the selected course of action should be considered by the treating provider in the context of treating the individual patient. Use of the information is voluntary. ERN-RND provided this information on an "as is" basis, and makes no warranty, expressed or implied, regarding the information. ERN-RND specifically disclaims any warranties of merchantability or fitness for a particular use or purpose. ERN-RND assumes no responsibility for any injury or damage to persons or property arising out of or related to any use of this information or for any errors or omissions.





### METHODOLOGY

The development of the Diagnostic Flowcharts for Dystonia was done by the Disease group for Frontotemporal Dementia. Scales used in the clinical practice of the disease group members were mapped, and the decision on which scale should be proposed was taken by majority voting.

#### **Diesease group for Frontoemporal Dementia**

#### Disease group coordinators:

Isabelle Leber<sup>1</sup>; Markus Otto<sup>11</sup>; Rik Vandenberghe<sup>3</sup>

#### Disease group members:

Healthcare professionals:

Alberto Albanese<sup>4</sup>; Adrian Danek<sup>5</sup>; Maria Teresa Dotti<sup>6</sup>; Barbara Garavaglia<sup>7</sup>; Zoltan Grosz<sup>8</sup>; Norbert Kovacs<sup>9</sup>; Milica Kramberger<sup>10</sup>; Bernhard Landwehrmeier<sup>11</sup>; Johannes Levin<sup>5</sup>; Janne Papma<sup>12</sup>; Jonathan Rohrer<sup>2</sup>; Robert Rusina<sup>13</sup>; Harro Seelaar<sup>12</sup>; Matthis Synofzik<sup>14</sup>; Marc Teichmann<sup>1</sup>, Pietro Tiraboschi<sup>7</sup>; John van Swieten<sup>12</sup>; Ione Wollacott<sup>2</sup>

Patient representatives:

Mary Kearney

<sup>&</sup>lt;sup>1</sup> Assistance Publique-Hôpitaux de Paris, Hôpital Pitié-Salepétrière, France: Reference centre for rare dementias; <sup>2</sup> University College London Hospitals NHS Foundation Trust, United Kingdom; <sup>3</sup> University Hospitals Leuven, Belgium; <sup>4</sup> IRCCS Clinical Institute Humanitas – Rozzano, Italy; <sup>5</sup> Klinikum der Universität München, Germany; <sup>6</sup> AOU Siena, Italy; <sup>7</sup> Foundation IRCCS neurological institute Carlo Besta – Milan, Italy; <sup>8</sup> Semmelweis University, Hungary; <sup>9</sup> University of Pécs, Hungary; <sup>10</sup> University Medical Centre Ljubljana, Slovenia; <sup>11</sup> Universitätsklinikum Ulm, Germany; <sup>12</sup> Erasmus MC: University Medical Center Rotterdam, Netherlands; <sup>13</sup> Charles University, Prague, <sup>14</sup> Universitätsklinikum Tübingen, Germany



#### INITIAL VISIT PACKET NACC UNIFORM DATA SET (UDS)



Form B4: CDR® Dementia Staging Instrument
PLUS NACC FTLD Behavior & Language Domains (CDR® Plus NACC FTLD)

| ADC name: | Subject ID: | Form date: / / | Visit #: | Examiner's initials: |
|-----------|-------------|----------------|----------|----------------------|
|           |             |                |          |                      |

INSTRUCTIONS: For information on the required online CDR training, see UDS Coding Guidebook for Initial Visit Packet, Form B4. This form is to be completed by the clinician or other trained health professional, based on co-participant report and behavioral and neurological exam of the subject. In the extremely rare instances when no co-participant is available, the clinician or other trained health professional must complete this form using all other available information and his/her best clinical judgment. Score only as decline from previous level due to cognitive loss, not impairment due to other factors, such as physical disability. For further information, see UDS Coding Guidebook for Initial Visit Packet, Form B4.

#### SECTION 1: CDR® DEMENTIA STAGING INSTRUMENT<sup>1</sup>

| Please enter<br>score below:    | IMPAIRMENT  |   |   |  |  |  |
|---------------------------------|---|---|---|--|--|--|
|                                 | None — 0  | Questionable — 0.5  | Mild — 1  | Moderate — 2   | Severe — 3   |  |
| 1. Memory                       | No memory loss, or slight inconsistent forgetfulness  | Consistent slight forgetfulness;<br>partial recollection of events;<br>"benign" forgetfulness | Moderate memory loss, more<br>marked for recent events; defect<br>interferes with everyday activities   | Severe memory loss; only high-<br>ly learned material retained;<br>new material rapidly lost   | Severe memory loss; only<br>fragments remain   |  |
| 2. Orientation                  | Fully oriented  | Fully oriented except for slight<br>difficulty with time relation-<br>ships                   | Moderate difficulty with time re-<br>lationships; oriented for place at<br>examination; may have geograph-<br>ic disorientation elsewhere         | Severe difficulty with time re-<br>lationships; usually disoriented<br>to time, often to place   | Oriented to person only  |  |
| 3. Judgment and problem solving | Solves everyday problems,<br>handles business and financial<br>affairs well; judgment good in<br>relation to past performance | Slight impairment in solving<br>problems, similarities, and<br>differences                    | Moderate difficulty in handling<br>problems, similarities, and<br>differences; social judgment<br>usually maintained                              | Severely impaired in handling<br>problems, similarities, and<br>differences; social judgment<br>usually impaired                       | Unable to make judgments or<br>solve problems  |  |
| 4. Community affairs            | Independent function at<br>usual level in job, shopping,<br>volunteer and social groups                                       | Slight impairment in these activities   | Unable to function independently<br>at these activities, although may<br>still be engaged in some; appears<br>normal to casual inspection         | No pretense of independent<br>function outside the home;<br>appears well enough to be<br>taken to functions outside the<br>family home | No pretense of independent<br>function outside the home;<br>appears too ill to be taken to<br>functions outside the family<br>home |  |
| 5. Home and hobbies             | Life at home, hobbies, and intellectual interests well maintained   | Life at home, hobbies, and<br>intellectual interests slightly<br>impaired                     | Mild but definite impairment of<br>function at home; more difficult<br>chores abandoned; more com-<br>plicated hobbies and interests<br>abandoned | Only simple chores preserved;<br>very restricted interests, poorly<br>maintained   | No significant function in the home  |  |
| 6. Personal care0               | Fully capable of self-care (= 0).   |   | Needs prompting   | Requires assistance in dressing, hygiene, keeping of personal effects  | Requires much help with<br>personal care; frequent<br>incontinence   |  |
| 7                               | _ CDR SUM OF BOXES  |   |   |  |  |  |
| 8                               | GLOBAL CDR  |   |   |  |  |  |

1 Morris JC. The Clinical Dementia Rating (CDR): Current version and scoring rules. Neurology 43(11):2412-4, 1993. Copyright© Lippincott, Williams & Wilkins. Reproduced by permission.

UDS Version 3.0, March 2015 National Alzheimer's Coordinating Center | (206) 543-8637 | fax: (206) 616-5927 | naccmail⊕uw.edu | www.alz.washington.edu Page 1 of 2







Subject ID: \_\_\_\_\_\_\_\_\_

Form date: \_\_\_/\_\_/\_\_\_\_

Visit #: \_\_\_\_\_

INSTRUCTIONS: For information on the required online CDR training, see UDS Coding Guidebook for Initial Visit Packet, Form B4. This form is to be completed by the clinician or other trained health professional, based on co-participant report and behavioral and neurological exam of the subject. In the extremely rare instances when no co-participant is available, the clinician or other trained health professional must complete this form using all other available information and his/her best clinical judgment. Score only as decline from previous level due to cognitive loss, not impairment due to other factors, such as physical disability. For further information, see UDS Coding Guidebook for Initial Visit Packet, Form B4.

#### **SECTION 2: NACC FTLD BEHAVIOR & LANGUAGE DOMAINS**

| Please enter   | IMPAIRMENT  |   |   |  |   |  |
|--|---|---|---|--|---|--|
| score below:   | None — 0  | Questionable — 0.5  | Mild — 1  | Moderate — 2   | Severe — 3  |  |
| 9. Behavior,<br>comportment,<br>and personality <sup>2</sup> | Socially appropriate behavior                                       | Questionable changes in comportment, empathy, appropriateness of actions  | Mild but definite changes in<br>behavior  | Moderate behavioral changes,<br>affecting interpersonal rela-<br>tionships and interactions in a<br>significant manner   | Severe behavioral changes,<br>making interpersonal<br>interactions all unidirectional |  |
| 10. Language <sup>3</sup>                                    | No language difficulty, or<br>occasional mild tip-of-the-<br>tongue | Consistent mild word-finding difficulties; simplification of word choice; circumlocution; decreased phrase length; and/or mild comprehension difficulties | Moderate word-finding difficulty in speech; cannot name objects in environment; reduced phrase length and/or agrammatical speech and/or reduced comprehension in conversation and reading | Moderate to severe impair-<br>ments in either speech or<br>comprehension; has difficulty<br>communicating thoughts;<br>writing may be slightly more<br>effective | Severe comprehension deficits;<br>no intelligible speech                              |  |

PExcerpted from the Frontotemporal Demential Multicenter Instrument & MR Study (Mayo Clinic, UCSF, UCLA, UW).

<sup>3</sup>Excerpted from the PPA-CDR: A modification of the CDR for assessing dementia severity in patients with primary progressive aphasia (Johnson N, Weintraub S, Mesulam MM), 2002.



#### https://ec.europa.eu/health/ern\_e



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