



Biological markers for neurodegeneration in Cerebrospinal Fluid (CSF) samples

To the attention of the patient or his representative: I was explained and understood the following:

I have been informed about the cost of the analyses: analysis cost ddCJD: € 0 / analysis cost ddAD: € 125 (2024)

There is no analysis cost for markers of Creutzfeldt-Jacob disease (ddCJD). Analyses with markers of Alzheimer's disease (ddAD) are not reimbursed by the Belgian health insurance (RIZIV/INAMI). You will be charged for this analysis cost via your hospital invoice. However, some supplementary hospitalisation insurances intervene in this analysis cost.

I have been informed of the scientific added value in the pseudonymised storage and further use of my CSF residual sample in scientific research. If you would object to the use of these residual samples for future scientific biomarker research, please inform your doctor who will indicate this on the form. In case of accidental findings with serious effect on your health, you will be informed. The Born Bunge Institute (IBB, www.uantwerpen.be/ibb-neurobiobank) located at the University of Antwerp, wishes to use, after analyzing your bodily fluid sample, the residual volume for further scientific research. Your residual CSF sample will be stored in the IBB Neurobiobank ID BB1901113. Your personal data as well as the clinical findings as provided below by your attending physician will be pseudonymized and will be kept in a safely manner. The link with your doctor and the hospital will remain intact as well.

I have been informed that all data obtained will be kept strictly confidential and I retain the right to access and correct my data, cfr. <https://www.uantwerpen.be/privacybeleid>. I can decide at any time to no longer participate in this study. No new data will then be generated on the basis of your retained body materials. I can contact the undersigned physician for any further questions.

Optional only in case of ddAD diagnostics:

I agree to non-diagnostic, prospective sampling and storage of a blood (plasma) sample for later use for scientific biomarker research. I have received a copy of the document 'Informed consent: prospective sampling and storage' document.

(www.uantwerpen.be/icfprospect) Ref. EC/PM/AL/2021.020

To accelerate scientific research into the diagnosis of these neurodegenerative disorders we would like to ask without obligation to provide a blood sample (plasma sample) in addition to your CSF sample. This appended plasma sample will be stored in the IBB Biobank in a similar way as your CSF sample (www.uantwerpen.be/sampling). Scientists can then appeal to it.

Date: _____

Date and signature patient or his representative: _____

To the attention of the doctor:

NRC-ddCJD coordination / sample receipt / validation & communication of ddCJD results:

Labo klinische biologie UZA, route 169
 Drie Eikenstraat 655
 2650 Edegem
 Dr. Khadija Guerti (riziv nr. 11943866860)

Analysis / interpretation: Labo Neuro/Neurobiobank IBB-UA

E-mail: biomarkers@uantwerpen.be

Tel. Lab +32 3 265 2605 Fax Lab +32 3 265 8501

Patients' personal data / hospital sticker

| | |
|---|---|
| <p>dd Depression or psych. disorder versus dementia (AD)</p> <p>dd Alzheimer's Disease (AD) versus non-AD neurocognitive disorder</p> <p>Proteins: tTau, pTau₁₈₁, Aβ₁₋₄₂/Aβ₁₋₄₀</p> <p>Clin Chem Lab Med. 2021 Nov15;60(2):207-219</p> <p>2x 1ml CSF + 2x 1ml EDTA Plasma (into 1,5ml PP tubes)</p> <p>www.uantwerpen.be/sampling Ref. EC/PM/AL/2021.020 'prospective sampling and storage'</p> <p>Analysis cost: 125 euro (2024) (www.uantwerpen.be/icfprospect)</p> | <p>ddCreutzfeldt-Jakob Disease (CJD) - NRC-ddCJD</p> <p>Proteins: 14-3-3 / PrPsc (RT-QuIC)</p> <p>RT-QuIC inclusion only IF the diagnostic criteria 'possible CJD' according to the WHO/ECDC have been met OR 14-3-3 protein analysis returned (weak) positive. Acta Neurol Belg 2018 Sep;118(3):395-403</p> <p>2x 1ml CSF (into 1,5ml PP tubes)</p> <p>Analysis cost: no cost (due to NRC-ddCJD Consortium)</p> |
|---|---|

Opting out the use of residual CSF for further scientific research: **only tick the box if the patient makes objection.**

Name Doctor: _____

Email Doctor: _____

RIZIV/INAMI nr: _____

Date: _____

Name Hospital: _____

Signature: _____

Please complete specific clinical findings on next page

Patient's name: _____ Date of birth: _____ Date of CSF sampling: _____

Clinical duration: ___ months Rapid progressive neurodegeneration MMSE: ___ / 30 date: _____
Age at onset: _____ Slow progressive neurodegeneration ADAS-cog: _____

Clinical diagnosis: _____

Clinical symptoms at onset:

| | |
|---|---------------------------|
| Complaints of memory and/or orientation | Pure cerebellar onset |
| Behavioural symptoms | Stroke-like onset |
| Language difficulties | Pure psychiatric onset |
| Isolated visual symptoms | Sensory symptoms at onset |
| Extra pyramidal onset | Other _____ |

Clinical remarks: _____

Clinical evolution:

Yes No ?

progressive dementia

- memory disturbances
- orientation difficulties (space/time)
- attention difficulties / distractibility
- behavioural changes: apathy
- behavioural changes: loss of empathy
- behavioural changes: disinhibition
- hyperorality
- perseverative / stereotyped / compulsive behaviour
- executive dysfunction
- language difficulties / aphasia
- dysarthria
- akinetic mutism**
- verbal apraxia

Yes No ?

- limb apraxia
- visuospatial dysfunction**
- hallucinations or delusions
- REM sleep behaviour disorder
- falls
- loss of consciousness
- myoclonus**
- frontal release signs
- ataxia / **cerebellar signs**
- pyramidal signs**
- parkinsonism / **extrapyramidal signs**
- depression
- psychiatric problems*
- epilepsia*

Neuro-imaging - if performed - thick when present

MRI / CT

- Normal
- Abnormalities - non specific
- Abnormalities - affecting striatum or neo-cortex
- High signal in caudate lobe and putamen
- High signal in posterior thalamus > other areas
- Enlargements - ventricular

| | | | | | | |
|--------------------|---|---------------------|-----|----------------|-------|------------------|
| Atrophy - cerebral | / | Predominant regions | / | Global atrophy | / | Temporal atrophy |
| | | frontal | L R | GCA = 0 | MTA 0 | L R |
| | | temporal | L R | GCA = 1 | MTA 1 | L R |
| | | parietal | L R | GCA = 2 | MTA 2 | L R |
| | | occipital | L R | GCA = 3 | MTA 3 | L R |
| | | | | | MTA 4 | L R |

other: _____

Atrophy - cerebellar

PET FDG predominant hypometabolism

- | | | |
|-----------|---|---|
| frontal | L | R |
| temporal | L | R |
| parietal | L | R |
| occipital | L | R |
- other: _____

PET Amyloid

- Neg
- Pos

EEG

- Normal
- Periodic sharp-wave complexes - triphasic
- Slowing focal or diffuse
- Slowing frontal or frontotemporal
- Slowed alfa activity
- Decreased beta activity
- Increased theta and delta activity
- other: _____

Additional information - Sciansano CJD Surveillance:

Specific risk factors

Yes No ?

- | | | |
|------------------------------|-----------------------|-------|
| Ever had a stroke | Year of stroke | _____ |
| Ever had a residence in UK | When | _____ |
| Ever had endoscopy | When / which hospital | _____ |
| Ever had surgery | Surgery info | _____ |
| Ever had neurosurgery | Neurosurgery info | _____ |
| Familial history of dementia | Dementia type | _____ |