

# DIAGNOSTIC CRITERIA FOR HUMAN TRANSMISSIBLE SPONGIFORM ENCEPHALOPATHIES- SURVEILLANCE CRITERIA

(from January 2017)

## 1. **SPORADIC CJD**

### 1.1 **DEFINITE**

Progressive neurological syndrome AND  
Neuropathologically or immunocytochemically or biochemically confirmed

### 1.2 **PROBABLE**

121 I + 2 di II + III  
or

122 I + 2 di II +IV  
or

123 Possibie +14-3-3  
positive or

124 Progressive neurological syndrome and positive RT-QuIC in CSF or other tissues

### 1.3 **POSSIBLE**

I + 2 di II + duration < a 2 years

- I Rapidly progressive cognitive impairment
- II
  - A Myoclonus
  - B Visual or cerebellar problems
  - C Pyramidal or extrapyramidal features
  - D Akinetic Mutism
- III Typical EEG\*
- IV High signal in caudate/putamen on MRI brain scan or at least two cortical regions (temporal, parietal, occipital) either on DWI or FLAIR

\* **Generalised periodic complexes**

# DIAGNOSTIC CRITERIA FOR HUMAN TRANSMISSIBLE SPONGIFORM ENCEPHALOPATHIES- SURVEILLANCE CRITERIA

## 2. ACCIDENTALLY TRANSMITTED TSE

### RELEVANT EXPOSURE RISKS FOR THE CLASSIFICATION AS IATROGENIC CJD

*The relevance of any exposure to disease causation must take into account the timing*

- Treatment with human pituitary growth hormone, human pituitary gonadotrophin or human dura mater graft.
- Corneal graft in which the corneal donor has been classified as definite or probable human prion disease.
- Exposure to neurosurgical instruments previously used in a case of definite or probable human prion disease.

*This list is provisional as previously unrecognised mechanisms of human prion may occur*

### 2.1 DEFINITE

Definite CJD with a recognised iatrogenic risk factor (see box)

### 2.2 PROBABLE

2.2.1 Progressive predominant cerebellar syndrome in human pituitary hormone recipients

2.2.2 Probable CJD with recognized iatrogenic risk factor (see box)

2.2.3 Possible CJD with a recognised risk factor (agreed and EURO meeting Bled, 2006)

## 3. GENETIC TSE

### 3.1 DEFINITE

3.1.1 Definite TSE + definite or probable in 1<sup>st</sup> degree relative

3.1.2 Definite TSE with a pathogenic PRNP mutation (see box)

### 3.2 PROBABLE

3.2.1 Disturbo neuropsichiatrico progressivo + EST certa o probabile TSE in un familiare di 1<sup>st</sup> grado

3.2.2 Disturbo neuropsichiatrico progressivo + una mutazione patogena del gene PRNP (vedi riquadro)

- **PRNP MUTATIONS ASSOCIATED WITH GSS NEUROPATHOLOGICAL PHENOTYPE**  
P102L, P105L, A117V, G131V, F198S, D202N, Q212P, Q217R, M232T, 192 bpi
- **PRNP MUTATIONS ASSOCIATED WITH CJD NEUROPATHOLOGICAL PHENOTYPE**  
D178N-129V, V180I, V180I+M232R, T183A, T188A, E196K, E200K, V203I, R208H, V210I, E211Q, M232R, 96 bpi, 120 bpi, 144 bpi, 168 bpi, 48 bpdel
- **PRNP MUTATIONS ASSOCIATED WITH FFI NEUROPATHOLOGICAL PHENOTYPE** D178N-129M
- **PRNP MUTATION ASSOCIATED WITH VASCULAR PRP AMYLOID**  
Y145s
- **PRNP MUTATIONS ASSOCIATED WITH PROVEN BUT UNCLASSIFIED PRION DISEASE** H187R, 216 bpi
- **MUTATIONS ASSOCIATED WITH NEURO-PSYCHIATRIC DISORDER BUT NOT PROVEN PRION DISEASE**  
I138M, G142S, Q160S, T188K, M232R, 24 bpi, 48 bpi, 48 bpi + nucleotide substitution in other octapeptides

# DIAGNOSTIC CRITERIA FOR HUMAN TRANSMISSIBLE SPONGIFORM ENCEPHALOPATHIES- SURVEILLANCE CRITERIA

## 4. vCJD

### 4.1 DEFINITE

1A **e** conferma neuropatologica di vMCJ<sup>e</sup>

### 4.2 PROBABLE

4.2.1 I **and** 4/5 of II **and** IIIA **and** IIIB

4.2.2 I **and** IV A<sup>d</sup>

### 4.3 POSSIBLE

I **and** 4/5 of II **and** IIIA

I	A Progressive neuropsychiatric disorder B Duration of illness > 6 months C Routine investigations do not suggest an alternative diagnosis D No history of potential iatrogenic exposure E No evidence of a familial form of TSE
II	A Early psychiatric symptoms <sup>a</sup> B Persistent painful sensory symptoms <sup>b</sup> C Ataxia D Myoclonus or chorea or dystonia E Dementia
III	A EEG does not show the typical appearance of sporadic CJD <sup>c</sup> in the early stages of illness B Bilateral pulvinar high signal on MRI scan
IV	A Positive tonsil biopsy <sup>d</sup>

a depression, anxiety, apathy, withdrawal, delusions.  
b this includes both frank pain and/or dysaesthesia.  
c the typical appearance of the EEG in sporadic CJD consists of generalised triphasic periodic complexes at approximately one per second. These may occasionally be seen in the late stages of variant CJD.  
d tonsil biopsy is **not** recommended routinely, nor in cases with EEG appearances typical of sporadic CJD, but may be useful in suspect cases in which the clinical features are compatible with vCJD and MRI does not show bilateral pulvinar high signal.  
e spongiform change and extensive PrP deposition with florid plaques throughout the cerebrum and cerebellum.