

#### **Leaders in Laboratory Medicine**

# **Laboratory Bulletin**

DATE:	5 August 2025
TO:	Physicians and Clinicians in Alberta
FROM:	Alberta Precision Laboratories (APL) – Public Health Laboratory (ProvLab)
RE:	Changes to CSF Prion Disease Testing Panel (Creutzfeldt-Jacob Disease (CJD) Protein Screen)

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#### **Key Message**

- On August 1, 2025, the National Microbiology Lab (NML) will update its prion disease cerebrospinal fluid (CSF) test panel.
- Only the EP-QuIC will be performed routinely.
- hTau will be available by request only.
- EP-QuIC remains the most sensitive and specific antemortem test for sporadic prion diseases.

## **Background**

- Prion disease CSF testing is performed at the National Microbiology Laboratory (NML).
- Previously, testing included a panel of three tests: EP-QuIC, hTau, and 14-3-3y.
- EP-QuIC (End-Point Quaking-Induced Conversion) remains the primary diagnostic test.
- What is changing:
  - NML is updating the national prion disease CSF test panel, effective August 1, 2025.
  - Only the EP-QuIC test will be performed for routine testing.
  - The hTau test will be available by request only.
  - The 14-3-3y test will be discontinued.
- Why it is changing:
  - The EP-QuIC assay has consistently shown superior sensitivity and specificity for detecting sporadic CJD from CSF, outperforming both other tests.
  - A nationwide study of NML CJD data from 2016–2024 confirmed the EP-QuIC test's vastly superior sensitivity and specificity compared to hTau and 14-3-3γ tests (Slota *et al.*, 2025).

#### **Action Required**

- As needed, update your area's internal protocols to reflect this change in testing.
- If testing for hTau testing is required when performing a CJD screen on CSF, please consult with the APL ProvLab Microbiologist/Virologist On-Call (MVOC) (https://www.albertahealthservices.ca/assets/wf/lab/if-lab-contact-information.pdf)

#### **Additional Details**

- The process for test ordering and submission remains unchanged.
- Hereditary prion diseases should still be assessed with a nucleic acid test on blood, not CSF.



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# Inquiries and feedback may be directed to

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# Approved by

• Dr. Graham Tipples, Medical-Scientific Director, APL - Public Health Laboratory

## **Additional Resources**

- Slota, JA et al. (2025) <u>Diagnosis of Creutzfeldt-Jakob Disease in Canada: An Update on Cerebrospinal Fluid Testing from 2016 to 2024 Can J Neurol Sci.</u> doi: 10.1017/cjn.2025.10088.
- National Microbiology Laboratory (NML) <u>Prion Disease CSF Test Panel</u>