

Date: February 16, 2012

To: All Zones
Physicians and Laboratory Directors and Managers

From: AHS Laboratory Services – Edmonton Zone

Re: Detection of Cerebral spinal fluid (CSF) in Nasal and Ear Fluids

PLEASE POST OR DISTRIBUTE AS WIDELY AS APPROPRIATE

Key Messages:

- **Beta (β) Trace Protein** is now being offered at the University of Alberta Hospital Laboratory.
- It is available for the detection of cerebral spinal fluid (CSF) in ear and nasal discharge when CSF leakage is suspected.

Advantages:

- β Trace Protein is a prostaglandin D2 synthase present in CSF at concentrations approximately 35 times that found in serum.
- At a cut off of 1 mg/L, the test has a sensitivity and specificity approaching 100% for the diagnosis of CSF leakage in ear and nasal fluids.

Limitations:

- Elevated levels may be found in the serum of patients with renal disease. Therefore, patients with a serum creatinine greater than 250 $\mu\text{mol/L}$ require measurement of serum β trace protein as well.

Sample Handling:

- Additional information may be found in the AHS Edmonton Zone Test Directory by searching Beta Trace Protein at: <https://www.albertahealthservices.ca/lab/Page7818.aspx>.

Questions or Concerns may be directed to:

- Connie Prosser, Clinical Biochemist, University of Alberta Hospital at 780-407-8492

This bulletin has been reviewed and approved by:
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