



# CSF Neurotransmitters Request Form



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**Neurometabolic Use (only)**  
 Date & Time Received:  
 -70°C Freezer Rack Location:  
 Laboratory Number:



**Surname:**  
**Forename:**  
**Sex: M / F**  
**DOB:**  
**NHS No:**

**Hospital:**  
**Hospital No:**  
**Specimen date & Time:**  
**Consultant:**  
**Contact details:**  
**Name of person performing Lumbar Puncture:**

**Clinical details:** .....

**Drug therapy:** .....

*PLEASE NOTE: the clinical details and drug therapies are essential for the accurate interpretation of results.*

### Collection Instructions

- 1) Number three tubes as 1, 2, 3 and by using a sticky label or permanent marker, include patient details such as surname, first name, date of birth, hospital number, and specimen date on all tubes.
  - 2) The first 0.5ml of lumbar CSF should be collected into **Tube 1** for HVA and 5HIAA measurements.
  - 3) The second 0.5ml of lumbar CSF should be collected into **Tube 2** for 5MTHF (Folate) and PLP (Pyridoxal phosphate) determination.
  - 4) The next 1ml of lumbar CSF should be collected into **Tube 3** which contains 1mg of each preservative (DTE & DETAPAC), for pterin (neopterin, dihydrobiopterin BH<sub>2</sub> and tetrahydro-biopterin BH<sub>4</sub>) analysis.
  - 5) ALL CSF samples must be frozen immediately at the bedside on dry ice or liquid nitrogen and *transported to the laboratory frozen*.
  - 6) Please ensure all samples arrive during lab opening hours: 9am-5.30pm, Monday to Friday (see user manual for more details).
- NEVER MIX SAMPLES FROM DIFFERENT PATIENTS IN THE SAME LIQUID NITROGEN FLASK.
  - Store unused sample tubes at 4°C for 1 year.
  - SPECIMENS FAILING TO ADHERE TO ALL STATED SAMPLE REQUIREMENTS AND LABELLING MAY NOT BE PROCESSED – please contact the laboratory with any queries.

For **Pterin analysis**, please confirm if preservatives are present in **Tube 3** (ESSENTIAL) YES  or NO  ?

Test	✓ tests required	Result	Units	Reference Range
HVA			nmol/L	*
5HIAA				*
HVA:5HIAA ratio			N/A	<b>1.0 - 3.7</b>
3-MD	NMU use only		nmol/L	*
5-HTP				
5MTHF			nmol/L	*
Neopterin				<b>7 - 65</b>
BH <sub>2</sub>				<b>&lt;0.4 - 13.9</b>
BH <sub>4</sub>				*
PLP				*

DTE = Dithioerythritol DETAPAC = Diethylenetriaminepentaacetic acid. **\*Age Related Reference Intervals.**  
 Please refer to the current published User Manual on our website for further information for patients and users.

Internal Users: <http://insight/departments/medicineboard/pathology/BiochemicalMedicine/neurometabolicunit/Pages/default.aspx>  
 External Users: <https://www.uclh.nhs.uk/OurServices/ServiceA-Z/Neuro/NMU/Pages/Home.aspx>