**Orderable - CSFhem1**

**Turn Around Time:** 4 hours  
**STAT:** 1 hour

**Alternate Name(s):**
CSF Analysis

**Specimen:**
Cerebrospinal Fluid

**Collection Information:**
A minimum volume of 1 mL collected in each sterile, sequentially labeled CSF tube.

Only cell counts are performed on the first tube collected.

Cell counts and differential are performed on the last tube collected.

**Reference Ranges:**

**Cell Counts:**

<table>
<thead>
<tr>
<th>Age Group</th>
<th>TNC x 10⁶/L</th>
<th>RBC x 10⁶/L</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 1 year</td>
<td>0–30</td>
<td>few</td>
</tr>
<tr>
<td>1-5 years</td>
<td>0–20</td>
<td>few</td>
</tr>
<tr>
<td>6-16 years</td>
<td>0–10</td>
<td>few</td>
</tr>
<tr>
<td>Adult</td>
<td>0–5</td>
<td>few</td>
</tr>
</tbody>
</table>

**Differential:**

<table>
<thead>
<tr>
<th>Cell Type</th>
<th>Neonate (%)</th>
<th>Adult (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lymphocytes</td>
<td>2–38</td>
<td>63–99</td>
</tr>
<tr>
<td>Monocytes</td>
<td>50–94</td>
<td>3–37</td>
</tr>
<tr>
<td>Neutrophils</td>
<td>0–8</td>
<td>0–2</td>
</tr>
</tbody>
</table>

**Method of Analysis:**
Total nucleated cell counts and RBC counts are performed by manual counting on a Neubauer chamber or by automated analysis on a Hematology analyzer (when appropriate).

Differentials performed by microscopy.

**Test Schedule:**
As required
**Interpretive Comments:**

CSF is considered to be an irreplaceable specimen and is analyzed regardless of whether there are clots or particular matter present. Counts may be inaccurate in these circumstances.

**Special Processing:**

Send sample to the lab immediately.

**Critical Information Required:**

It is imperative that the order of draw be accurately reflected by placement into the appropriately labelled sequential collection tube.

**Storage and Shipment:**

Ship sample at room temperature.

Specimens **must** be received in the laboratory within 1 **hour of collection** as cells deteriorate quickly. Testing must proceed as quickly as possible following receipt in the laboratory.