

November 26, 2024

HEMATOLOGY

Hematology Body Fluids TestingDate effective: **December 2, 2024**

Background Information: Cerebrospinal fluid (CSF) and non-CSF body fluid testing for automated cell count have been validated and in use across Manitoba Hematology Laboratory sites beginning in November 2023 with the introduction of updated Sysmex CBC analyzers. Effective **December 2 2024**, the new middleware platform (CaresphereWS) will be fully integrated into body fluid processing.

Clinical Practice Change:

- **All Serous and Peritoneal Dialysate fluids for Cell Count will be performed only by automation.**
 - **Minimum Volume of 500uL (0.5mL)**
- **Reporting units are standardized:**
 - **Automated WBC/TNC x 10⁶/L**
 - **Manual WBC/RBC x 10⁶/L**
 - **Automated RBC x 10¹²/L**
 - **Note: x10⁶/L is equivalent to #/uL**
- **Absolute differential values will be included in the patient report and reported at x 10⁶/L**
- **Introduction of new Critical Values of non-CSF fluids recommended by the Emergency Room (ER) and Nephrology clinical user groups:**
 - **Synovial – Absolute Neutrophil Count (ANC) >50,000 x 10⁶/L**
 - **Peritoneal – ANC >250 x 10⁶/L**
 - **Peritoneal Dialysate (also known as Dialysis fluid, peritoneal dialysis effluent) – WBC >100 x 10⁶/L together with Neutrophil % >50 %**
- **CSF Critical Values remain unchanged.**
- **Stability, sample requirements, and reference ranges remain unchanged.**

References/Resources: Please refer to the Laboratory Information Manual (LIM)

CSF: [Lab Information Manual](#) Serous: [Lab Information Manual](#) Synovial: [Lab Information Manual](#)

Patient Impact:

- Immediate alert of clinically defined critical results to ensure prompt recognition of possible septic peritonitis/arthritis.

System Improvements:

- Standardization of lab processing through automation
- Improved laboratory workflow with middleware integration and streamlined registration processes
- Real time data review and interlaboratory support

Contact Information:

- **Andrew Hartel, Provincial Technical Director, Hematology, Shared Health**
ahartel@sharedhealthmb.ca 204-599-3275
- **Dr. Ping Sun, Provincial Medical Director, Hematology, Shared Health**
psun@sharedhealthmb.ca 204-787-4682