

Laboratory Medicine Bulletin

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New Hematology Analyzers

On September 15th, new CBC analyzers will be put into use at St. Paul's Hospital. The analyzers (Sysmex XNs) are newer versions of the current instruments and results are, for the most part, comparable. One advantage of the newer technology is that body fluids can be analyzed, saving considerable time for the technical staff.

There will be some changes made to the following areas:

Red blood cell morphology:

- Non-specific abnormalities such as elliptocytes and target cells will not be reported as they have very little diagnostic value.
- Microcytosis and macrocytosis will not be reported. For microcytic cases there will be an automated comment based on an algorithmic approach that incorporates previous results, hemoglobin, red blood cell count and mean cell volume (MCV). Cases with significant microcytosis and macrocytosis will continue to be referred for hematopathologist review, as will cases with other significant findings.

Body fluid counts:

- Body fluid counts, including nucleated cells and red blood cells will be performed on the Sysmex instrument, as the new technology is able to quantify cells very well. The exception is red blood cell counts on CSF samples, as the lower limit of detection is $500 \times 10^6/L$ cells.
- Cytocentrifuge preparations will continue to be examined to ensure the validity of the instrument counts.

Please feel free to contact me if you have any questions or concerns.

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