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| **SOP Number:** | CH-090 | **Effective Date** |  |
| **Department & Section:** |  | **Revision Date(s):** |  |
| **Author:** | K.Clark MT.(ASCP)  K.Miller M.T.(ASCP)  R.Bernshausen M.T.(ASCP) | **Version:** | 1 |

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| Applicable Standards | | | |  | Version History | | | |
| Standard | | Organization | |  | Version | Effective Date | | Retired Date |
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| Related Documents | | | |  |  |  | |  |
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| Review History (Up to the Last 15 Occurrences) | | | | | | | | |
| Date | Version | | Revision Type | | | | Review By/Initials & Date | |
|  | 1 | | New Policy/Procedure | | | | System Laboratory Medical Director, Joe A. Lewis, M.D., F.C.A.P. | |
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| Distribution |
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A peripheral blood smear is submitted to a pathologist (Shoreline and South Laboratory) or to the Lead Medical Technologist (Memorial Laboratory) for review if the following criteria are met. The slide is submitted along with the patient CBC print-out containing the following information: ***clinical diagnosis, criteria to be reviewed, technologist initials***.

**White Blood Cells: (Initial findings only)**

* Total WBC count of ≥50,000µl or ≤2,000µl
* Marked toxic changes in neutrophils (numerous Döhle bodies and cytoplasmic vacuoles in PMN’s) if blood cultures have not been ordered.
* Absolute lymphocytosis (>5,000µl) in an adult (Shoreline only)
* Presence of atypical lymphocytosis defined as:
* >50% lymphocytes or ≥5,000µl with ≥10% total atypical or ≥1,000 µl atypical lymphocytes
* Memorial-Release results with a Shift supervisor review and leave for Lead Medical Technologist
* Immature lymphocytes >10%:Memorial **do not** release results (please see comment) and leave for Lead Medical Technologist to refer to pathologist at Shoreline.
* Plasma cells**: Memorial do not release results** (please see comment) and leave for Lead Medical Technologist to refer to pathologist at Shoreline.
* Monocytes: >20% or suspicious for being immature or abnormal. (Memorial do not release results, leave for Lead Medical Technologist).
* BLASTS: Memorial **do not** release results (please see comment) and leave for Lead Medical Technologist to refer to pathologist at Shoreline.
* Auer Rods: Memorial **do not** release results (please see comment) and leave for Lead Medical Technologist to refer to pathologist at Shoreline.

**When the technologist/technician performing the slide review is unsure as to how to classify the cells observed, please place them under the category “OTHER”. This result must be called to the treating physician. A comment should be placed in the computer as to the suspicion of cell types observed, and that the blood smear will be left for a pathologist to review.**

**Red Blood Cells:** ***(new findings/1st occurrence only)***

* Marked abnormalities in cell indices:
* MCV ≤**70**
* RBC counts ≥6.5x 10/L, except babies.
* NRBC’s on smears, **except babies**
* Marked 3+ Polychromasia
* Spherocytes, schistocytes, tear drop, blister cells, and basophilic stippling if **≥2+** in degree
* Sickle cells (new finding), Pappenheimer bodies
* Intra or Extra Cellular Parasites: Memorial **do not** release results (please see comment) and leave for Lead Medical Technologist to refer to pathologist at Shoreline
* Bacteria/Yeast: Memorial **do not** release results (please see comment) and leave for Lead Medical Technologist to refer to pathologist at Shoreline

**Platelets: *(new findings/1st occurrence only)***

* Platelet “Satellitosis”
* Large numbers of giant (larger than a normal red cell) and/or hypogranulated platelets

**Note:** It is the responsibility of the technologist/technician performing the slide review to investigate the previous history of the patient. Whenever a patient has a current history (i.e. during this admission or for the last outpatient admission within the previous 2-3 weeks), these criteria may be waived. This means that the current results agree with the previous results within reason.  At Memorial Laboratory, the slide should be left for Lead Medical Technologist review but the results may be release by the technologist/technician performing the test.