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| REPORTING AUTOMATED DIFFERENTIAL  | You may report the automated differential when the following conditions are met: * No Abnormal Interpretative Program (IP) Messages
* No suspect flags on scatter plot
* A normal and well-defined scatter plot

When the above conditions are met Under ARE Instrument Queue, press “Verify” to release all results in Cerner. |
| SLIDE REVIEW PROCEDURE  | A manual differential count or slide/smear review is required if any of the above parameters are not met. Any automated Complete Blood Count (CBC) with abnormal scatter plots or histograms, suspect flags, or missing differential results will have a slide review.

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| Step | Action |
| 1. | Scan a minimum of 10 fields at 40 or 50X magnification  |
|  |  | **If** | **Then** |  |
|  |  | Slide review confirms Automated Diff | Under Hemogram comment button, follow smear review protocol and report the differential |  |
|  |  | Slide review doesn’t match Automated Diff | Perform Manual Differential |  |
|  |  | Abnormal or Immature WBC’s are present | Perform Manual Differential |  |
|  |  | NRBC’s are present | Perform Manual Differential |  |
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| ABNORMAL OR IMMATURE WBC’S  | Immature WBC’s (band, metamyelocyte, promyelocyte, myelocyte or blast)require a slide review.Abnormal WBC’s (i.e., reactive lypmhs, hyper segmented neutrophils, etc.) require a slide review. |

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| ASSIGNED ACTION HIGH/LOW LIMITS | Manual differential count or slide/smear review is required when High/Low flags are triggered.Note: These are parameter ranges that have been defined by our laboratories. Action High/Low Flags are set in the XN-550 for these values.

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| Analyte | Action Low  | Action High  |
| WBC (White Blood Count) | <2,000 | >30,000 |
| MCV (Mean Corpuscular Volume) | <75 fl | >105 |
| MCHC (Mean Corpuscular Hemoglobin Concentration) | <31 | >37 |
| RDW |  | >22.0 |
| Platelet Count | <100 | >1000 |
| Auto Differential:Segs | <0.5 | >20.0  |
|  Lymph | <1.00 | >5.0 |
|  Mono |  | >1.5 |
|  Eos |  | >2.0 |
| Baso |  | >0.5 |
| Ig |  | >0.5 |

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| Controlled Documents | The following controlled documents support this policy. |
| **References** |
| Technical Hematology Arthur Simmons, 2nd edition, J.B. Lippencott Company, Philadelphia. p.103.  |
| Laboratory Medicine Hematology, John B. Miale, 6th edition, O.V. Mosby Company, St. Louis. p.475, 869. |
| American Journal of Clinical Pathology, Committee for Clarification of the nomenclature of Cells and Diseases of the Blood and Blood Forming Organs: second report, 56:19 (1949). |
| Technical Improvement Service, “What is a Band”, Thomas F. Deutcher, MD., Commission on Continuing Education of the Society of Clinical Pathologists, No. 15 (1973) pg. 10-19. |

Document History Page

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| Change type: New, Major, Minor etc. | Changes Made to SOP – describe | Name of responsible person/date | Med. Dir. Reviewed/ Date | Director of Lab Ops. reviewed/ date | Date change Implemented |
|  Minor | Page 1. Under Reporting Automated Differentials, Immature Gran 1 is omitted.LMS releasing procedure is replaced by Cerner.Under Slide Review Procedure; Smear Review protocol is added.Page 2. Under Assigned/Low Limits; WBC lower limits is updated from <3,000 to <2,000, and Platelet Count is updated from <37,000 to <20,000 | Alex De Castro08/29/2013 |  |  |   |
|  Major | Page 1. Under Reporting Automated Differentials, Criteria is clarified, No High/Low Flags is changed into Action High/Low Flags Page 2. Assigned High/Low Limits are renamed to Assigned Action High/Low Limits. Lower Limit and Higher Limit are renamed to Action Low (aL) and Action High (aH). The whole chart is updated. | Alex De Castro 02/27/2014 |  |  |   |
| MAJOR | 1. Regional Template Update2. Revised index no.3. Updated Low/High table based on Sysmex Rules | Yvette Lingat3/20/2020 |  | Mary Lou Beaumont | 4/28/2020 |
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