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**HEMATOLOGY AUTOVERIFICATION POLICY**

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RC.HM.PY.002.r11

**Purpose**

The Hematology laboratory initiated autoverification on 07/01/1999. It is the department policy that all normal results from the hematology analyzers will be autoverified using software in the WAM designed specifically for this purpose. In addition, selected abnormal results that fulfill the following criteria will also be autoverified in the WAM:

<b>Auto Verification Criteria Sysmex Hematology Analyzers</b>			
When all of the following criteria evaluate as 'True', then the WAM/ LIS will autoverify a CBCND, CBCWD, Absolute Eosinophil Count, Reticulocyte or ESR:			
Criteria Name	Range	Criteria Name	Range
WBC	2.0-20.0	Neut #	$\geq 0.5$
HGB	8.0-18.0	Lymph #	0-10
HCT	24.0-60.0	Mono #	0-3.0
MCV	60-114	Eos #	0-4.0
MCHC	30-38	IG %	0-10
RDW-SD	0-70	Retic %	0-23
RDW-CV	0-25	Suspect Flags	None
PLT	75-1000	Delta Checks	None
NRBCs	0-464	ESR	0-130

rev. 03/24/2013

**Delta Check Rules**

In addition, an assay will **not** be autoverified in WAM if the following delta checks are triggered:

<u>Criteria Name</u>	<u>Range</u>
HGB	Difference Between Previous HGB and Current HGB Greater Than $\pm 3.0$
MCV	Difference Between Previous MCV and Current MCV Greater Than $\pm 3.0$
WBC	50% Change Between Previous WBC and Current WBC
PLT	50% Change Between Previous PLT and Current PLT

Any sample with instrument flags and/or Op Alerts will stop autoverification so that the tech can review the instrument results and sample to properly identify the best course of action for resulting the patient.

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## Quality Control

Validation of autoverification will be performed annually and whenever there is a change to the system that could affect the autoverification logic. This is done by using selected patient samples including samples that have been previously tested and are expected to either pass or fail the criteria stated above.

Evaluation will be performed on routine patient samples to document auto verification of samples that passed criteria and lack of autoverification for samples, which failed the criteria. Each analyte must be ordered individually or all other analytes in the panel must be within reportable range with no delta checks or flags.

If unable to fulfill auto verification testing criteria with routine specimens, a test patient may be ordered for a particular analyte or by using the XE-5000 emulator software.

This is a zero tolerance system for errors in the software application. Any detected failure of the software system to detect appropriate samples for autoverification will be immediately reported to Sysmex America or WBH Information Technology group as applicable for correction/ modification of the software.

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## References

Cornbleet J, et al: Streamline your automated hematology laboratory. MLO 68-73, (April) 1997.

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## Attachments

Attachment A – Hematology Autoverification Validation Worksheet  
Attachment B – WAM 4.1 Rules

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## Authorized Reviewers

Chair, Pathology and Laboratory Medicine  
Medical Director, Hematology

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## ATTACHMENTS

### Attachment A – Hematology Autoverification Validation Worksheet

Rules	Date	Tech	Order #	Supervisor Review
WBC 2.0 (pass)				
WBC 20.0 (pass)				
WBC 1.94 (fail)				
WBC 20.05 (fail)				
WBC Delta Check				
HGB 8.0 (pass)				
HGB 18.0 (pass)				
HGB 7.9 (fail)				
HGB 18.1 (fail)				
HGB Delta Check (fail)				
HCT 24.0 (pass)				
HCT 60.0 (pass)				
HCT 23.4 (fail)				
HCT 60.5 (fail)				
MCV 60.5 (pass)				
MCV 114.0 (pass)				
MCV 60.4 (fail)				
MCV 114.5 (fail)				
MCV Delta Check (fail)				
MCHC 30.0 (pass)				
MCHC 38.0 (pass)				
MCHC 29.4 (fail)				
MCHC 38.5 (fail)				
RDW-SD 70.4 (pass)				
RDW-SD 70.5 (pass)				
RDW-CV 25.4 (pass)				
RDW-CV 25.5 (pass)				
RDW-SD 70.5 AND RDW-CV 25.5 AND CBCWD ordered (fail)				
PLT 75 (pass)				
PLT 1000 (pass)				
PLT 74 (fail)				
PLT 1001 (fail)				
PLT Delta Check (fail)				
Abs Neut 0.45 (pass)				
Abs Neut 0.44 (fail)				
Abs Lymph 9.95 (pass)				
Abs Lymph 10.06 (fail)				
Abs Mono 3.04 (pass)				
Abs Mono 3.05 (fail)				

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Abs. Eos 4.04 (pass)				
Abs. Eos 4.05 (fail)				
% IG 9.95 (pass)				
% IG 10.05 (fail)				
% Retic 23.0 (pass)				
% Retic 23.1 (fail)				
NRBC 464.0 (pass)				
NRBC 465.0 (fail)				
Normal Differential (pass)				
BLAST (fail)				
ABN LYMPHO/BLAST (fail)				
WBC ABN SCAT (fail)				
NRBC (fail)				
NRBC ABN SCAT (fail)				
DIMORPHIC POP (fail)				
RBC ABN DIST (fail)				
RBC AGG (fail)				
RET ABN SCATT (fail)				
FRAGMENTS (fail)				
PLT CLUMPS (fail)				
PLT CLUMPS(S) (fail)				
BLAST.MRN.FLAG (fail)				
CALC.CLM.FLAG (fail)				
NRBC.MRN (fail)				
PLT.SAT.MRN (fail)				
ESR 129 (pass)				
ESR 130 (fail)				

Print and save the WAM screen shot along with the LIS instant report.

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## Attachment B – WAM 4.1 Rules

WBC Rules								
Rule Name	Priority	Run Selection	Description		Test (s) to be added	Test(s) to be held	Test(s) to be rerun	Operator Alert/Comments
WBC001	51	A	XN Blasts/Abn Lympho?	If order for lab G only For instrument GXN* If FWS09 is present	SMEAR1,S ECREV	NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGRE, IGAB		Blasts/Abn Lympho? Review Slide and SEND FOR SECOND LEVEL REVIEW
WBC002	51	A	WBC ABN SCT 1: If WBC Abn Scattergram and ADIF ordered	If FWA01 is present and If NEUTRE is present	SMEAR1	WBC, WBCOR, WBCUC, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGRE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGAB		WBC Abn Scattergram: Check Previous Results. IF NONE: Review Slide
WBC002.1	51	A	WBC ABN SCT 2: If WBC Abn Scattergram and No ADIF ordered	If FWA01 is present and If NEUTRE is not present	SMEAR1	WBCOR, WBC, WBCUC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT, RDWSD, RDWCV, MPV		WBC Abn Scattergram: Check Previous Result. IF NONE Review Slide.
WBC003	51	A	WBC BLAST: If Blasts?	If order for lab !G only If FWS01 is present	SMEAR1,S ECREV	NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGRE, IGAB		Blasts?: Review Slide and SEND FOR SECOND LEVEL REVIEW
WBC004	51	A	WBC-IG: If Immature Gran?	If order for lab !G only If FWS02 is present	SMEAR1	NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGRE, IGAB		Immature Gran?: Review Slide: Check for immature cells
WBC006	51	A	WBC-ATY L: If Atypical Lympho? AND LYMP% >49.9%	If FWS05 is present and If LYMPRE is >= 50 and <= 100	SMEAR1	NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGRE, IGAB		Atypical Lympho? AND Lymph >49.9%: Review Slide: Check for blasts/reactive lymphs/prolymphs.
WBC007	51	A	WBC-ABN L: If Abn Lympho/L_Blasts?	If order for lab !G only If FWS07 is present	SMEAR1	NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGRE, IGAB		Abn Lympho/L_Blast?: Review Slide: Check for abnormal/suspicious cells.
WBC008	51	A	WBC-LYSE RES: If RBC Lyse Resistance	If FWS06 is present	FWS06,S MEAR1	WBC, WBCOR, WBCUC, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGRE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGAB		RBC Lyse Resistance: Review slide: Perform WBC estimate. Check for sickle cells, schistocytes.
WBC009.1	20	A	WBC CRIT 2: If WBC critical <2.0 OR >100 AND NOT site G	If order for lab !G only If WBC is < 1.999 or > 100.1	SMEAR1	WBC, WBCOR, WBCUC, NEUTRE, LYMPRE, OMORE, EOSIRE, BASORE, IGRE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGAB		WBC Critical: Follow SOP, REVIEW SLIDE
WBC009.2	20	A	WBC CRIT 3: If WBC critical <2.0 OR >25 AND site G	Patient criteria: 0D-199Y If order for lab G only For instrument GXN* If RBC is present and For instrument GXN* If WBC is < 1.95 or > 25.1	SMEAR1	WBC, WBCOR, WBCUC, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGRE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGAB		WBC Critical: Follow SOP, REVIEW SLIDE

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<b>WBC009.3</b>	<b>20</b>	<b>F</b>	WBC CRIT 4: If WBC critical < 1.00 AND Diff #nm	If NEUTRE is = #nm and If WBC is >= 0 and <= 1	SMEAR2	WBCOR, WBC, WBCUC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT, REWSD, REWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, ASORE, NEUTAB, LYMPAB, MONOB, EOSIAB, BASOAB, IGRE, IGAB	WBC Critical: Perform Diff on as many cells as possible. 1st occurrence
<b>WBC009.3.1</b>	<b>20</b>	<b>A</b>	WBC CRIT 4: If WBC critical < 1.00 AND Diff #nm result ADIF with #nm	If NEUTRE is = #nm and If WBC is >= 0 and <= 1			WBC Critical: Perform Diff on as many cells as possible. 1st occurrence
<b>WBC009.3S</b>	<b>20</b>	<b>S</b>	WBC CRIT 4: If WBC critical < 1.00 AND Diff #nm	If NEUTRE is = #nm and If WBC is >= 0 and <= 1		WBC, WBCOR, WBCUC, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGRE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGAB	WBC Critical: Perform Diff on as many cells as possible. 1st occurrence
<b>WBC009.4</b>	<b>51</b>	<b>A</b>	If WBC >20.0 AND No Previous AND G, T	If order for lab !R only If WBC is < 0 or > 20.1	SMEAR1	WBC, WBCOR, WBCUC, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGRE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGAB	WBC > 20: Review Slide, First Occurrence
<b>WBC009.5</b>	<b>51</b>	<b>A</b>	If WBC >20.0 AND No Previous AND R	If order for lab R only For instrument RXE* If WBC is >= 20.1 and <= 999999 .. and no previous order ... within 180 day(s)		WBC, WBCOR, WBCUC, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGRE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGAB	WBC>20: Check Patient History
<b>WBC010</b>	<b>25</b>	<b>A</b>	WBC DELTA 1: If WBC delta > ± 50%	If WBC is >= 0 and <= 500... and previous order delta check +/- 50% ... within 10 day(s)		WBCOR, WBC, WBCUC, RBC, HGB, HCT, MCV, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGRE, IGAB, RETIRE, RETIAB, IFR, RETHE, IPF, NRVCRE, NRBCAB	WBC Delta failure: Decreased check for clot, chemo/immunosupp; Increased check surg, proc/infec.
<b>WBC011</b>	<b>51</b>	<b>A</b>	WBC PATH REVIEW: If WBC >100 AND first occurrence	If order for lab G only If WBC is < 0 or > 100 .. and no previous order ... within 730 day(s) and If ZWBC is not present	SMEAR4	WBCOR, WBC, WBCUC, RBC, HGB, HCT, MCV, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGRE, IGAB, RETIRE, RETIAB, IFR, RETHE, IPF, NRVCRE, NRBCAB	Path review ordered. Review Slide: Provide slide and paperwork to pathologist.
<b>WBC011.1</b>	<b>51</b>	<b>A</b>	WBC PATH REVIEW: If WBC >100 AND first occurrence	If order for lab !G only If WBC is < 0 or > 100 .. and no previous order ... within 730 day(s) and If ZWBC is not present	SMEAR2	WBCOR, WBC, WBCUC, RBC, HGB, HCT, MCV, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGRE, IGAB, RETIRE, RETIAB, IFR, RETHE, IPF, NRVCRE, NRBCAB	Path review ordered. Review Slide: Provide slide and paperwork to pathologist.

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<b>WBC012</b>	<b>10</b>	<b>A</b>	WBC LINEARITY 1: If WBC > 485.00	If order for lab !G only If WBC is < -1 or > 485.001	SMEAR1	WBCOR, WBC, WBCUC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGRE, IGAB		WBC Linearity: ADD RERUN IN ACTION BOX. Dilute 1:5 with CELLPACK and rerun in CAP MODE. Verify that RBC matches original +/- 0.10
<b>WBC012.1</b>	<b>10</b>	<b>A</b>	XN WBC Linearity 1	If order for lab G only For instrument GXN* If WBC is < -1 or > 440.001		WBCOR, WBC, WBCUC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGRE, IGAB		WBC Linearity: ADD RERUN IN ACTION BOX. Dilute 1:5 w/DCL and rerun. Calc with dilution factor. Verify that RBC matches the original +/- 0.10.
<b>WBC014</b>	<b>51</b>	<b>F</b>	NRBC?: If NRBC?	If order for lab !G only If FWS04 is present	NRBCRE, NRBCAB		WBCOR,WBC,WBCUC,RBC,HGB,HCT,MCV,MCH,MCHC,PLT,RD WSD,RDWCV,MPV,NEUTRE,LYMPRE,MONORE,EOSIRE,BASORE,NEUTAB,LYMPAB,MONOAB,EOSIAB,BASOAB,IGRE,IGAB	NRBC?: Report rerun with corrected WBC/ADIF
<b>WBC015</b>	<b>51</b>	<b>A</b>	NRBC ABN SCT: If NRBC Abn Scattergram	If FWA11 is present	SMEAR1	WBC, WBCOR, WBCUC, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGRE, NRBCRE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGRE, IGAB, NRBCRE, NRBCAB		NRBC Abn Scattergram: Perform slide review
<b>WBC016</b>	<b>10</b>	<b>A</b>	NRBC LINEARITY: If NRBC >464.0	If order for lab !G only If NRBCRE is < -1 or > 465		WBCOR, WBC, WBCUC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT, REWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGRE, IGAB, NRBCRE, NRBCAB		NRBC Linearity: ADD Rerun in Action Box: Dilute 1:5 with CELLPACK and rerun in manual mode. Calc. w/dil factor. Check Previous Results
<b>WBC016.1</b>	<b>10</b>	<b>A</b>	XN NRBC Linearity	If order for lab G only For instrument GXN* If NRBCRE is < -1 or > 600.001		WBCOR, WBC, WBCUC, RBC, HGB, HCT, MCV, MCH, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGRE, IGAB, NRBCRE, NRBCAB		NRBC Linearity: Add rerun in the ACTION BOX. Dilute 1:5 w/DCL,rerun,calc w/dil factr.
<b>WBC019</b>	<b>51</b>	<b>F</b>	XN LWBC Reflex	If order for lab G only For instrument GXN* If WBC is < .5 or > 99999.999	LWBC		WBC, WBCOR, WBCUC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGRE, NRBCRE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGAB, NRBCAB	Low WBC: Follow SOP

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WBC019S	51	S	XN LWBC Reflex Subsequent Run	If order for lab G only For instrument GXN* If WBC is < .5 or > 99999.999		WBCOR, WBC, WBCUC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGRE, IGAB		SECOND RUN: Low WBC: Follow SOP
WBC021	20	A	CRITICAL NEUTROPENIA: If Neutrophil < 0.5 #	If order for lab G only If NEUTAB is >= 0 and <= .44	SMEAR4,Z FWA02	NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGRE, IGAB		Critical Neutropenia: Review Slide: Then send for Path Review. 1st occurrence
WBC021.2	20	A	CRITICAL NEUTROPENIA: If Neutrophil < 0.5 #	If order for lab !G only If NEUTAB is >= 0 and <= .44	ZFWA02,S MEAR1	NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGRE, IGAB		Critical Neutropenia: Review Slide: Then send for Path Review. 1st occurrence
WBC023	51	A	LYMPHOCYTOSIS: If Lymphocyte > 15# AND Age is >12 mos. AND No Previous results in past 6 months	Patient criteria: 12M- 150Y If LYMPAB is < -1 or > 15 .. and no previous order ... within 180 day(s)	SMEAR1,Z FWA05	NETRE, LYMPRE, MONORE, EOSIRE, BASORE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGRE, IGAB		Lymphocytosis: Review Slide: Check smear for abnormal/suspicious cells then send for Path Review. 1st occurrence
WBC023.1	51	A	LYMPHOCYTOSIS 1: If Lymphocyte > 59.9 AND Age >12 mos. and < 18Y	Patient criteria: 12M-18Y If LYMPRE is < -1 or > 59.99	SMEAR1,Z FWA05	NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGRE, IGAB		Lymphocytosis: Review slide. Check smear for abnormal/suspicious cells
WBC023.2	51	A	LYMPHOCYTOSIS 2: If Lymphocyte > 10.7# AND age < 13 mos AND No previous results	Patient criteria: 0D-12M If LYMPAB is < -1 or > 10.7 .. and no previous order ... within 730 day(s)	SMEAR1,Z FWA05	NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGRE, IGAB		Lymphocytosis: Review Slide; Check for Blasts
WBC023.3	51	A	LYMPHOCYTOSIS 3: If Lymphocyte > 10.0# and < 15.1#	Patient criteria: 0D-150Y If LYMPAB is >= 10.1 and <= 15.1	SMEAR1,Z FWA05	NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGRE, IGAB		Lymphocytosis: Check Patient History
WBC024	51	A	MONOCYTOSIS: If Monocyte > 3.0 # AND age>1 year AND No Previous Results	Patient criteria: 1Y-999Y If MONOAB is < -1 or > 3.1	SMEAR1, ZFWA07	NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGRE, IGAB		Monocytosis: Review Slide, check trending mono/blast/imm monos. Path Review: If persists for 3 mos.
WBC025	51	A	EOSINOPHILIA: If Eosinophil > 4 #	If EOSIAB is < -1 or > 4.001	ZFWA08	NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGRE, IGAB		Eosinophilia: Check Patient History
WBC028.1	51	A	IG %: If IG % > 10	If IGRE is < -1 or > 10.1	SMEAR1,Z FWA13	NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGRE, IGAB		IG Present: Review Slide, check for abnormal suspicious cells
WBC030	51	A	NRBC%: If NRBC % > 0 add comment WBC Corrected	If order for lab !G only If NRBCRE is < -1 or > .05				
WBC031	51	A	NRBC%: If manual NRBC % > 0 add comment WBC Corrected	If order for lab !G only If NRBCMI is < -1 or > .05				
WBC032	51	A	If Troy XE5000 and WBCOR is #NM then result WBC as #NM	If order for lab !G only For instrument TXE5* If WBCOR is = #nm				

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WBC033	51	A	If Troy XE2100 STAT LAB and WBCOR is #NM then result WBC as #NM	If order for lab !G only For instrument TXE5* If WBCOR is = #nm				
<b>WBC Criticals</b>								
Rule Name	Priority	Run Selection	Description		Test (s) to be added	Test(s) to be held	Test(s) to be rerun	Operator Alert/Comments
CRINWBC009	20	A	WBC CRIT 1: If WBC critical <2 OR >100	If order for lab !G only If WBC is < 1.999 or > 100.1 and If ZWBC is not present				
CRINWBC009.2	20	A	WBC CRIT 1: If WBC critical <2 OR >25	If order for lab G only For instrument GXN* If WBC is < 1.999 or > 25.1 and If ZWBC is not present				
CRINWBC021	20	A	CRITICAL NEUTROPENIA: If Neutrophil < 0.5 #	If NEUTAB is < .44 or > 999999 and If ZTAB is not present				
CRINWBCUH	20	A	Critical High Unregistered Rule for WBC	If order for lab G only If UNREG is present and For instrument GXN* If WBC is < -1 or > 25.001		All		Possible unregistered Sample ID: Check for demographics and add a rerun
CRINWBCUH.1	20	A	Critical High Unregistered Rule for WBC	If order for lab !G only If UNREG is present and If WBC is < -1 or > 100.001		All		Possible unregistered Sample ID: Check for demographics and add a rerun
CRINWBCUL	20	A	Critical Low: Unregistered rule for WBC	If UNREG is present and If WBC is < 1.999 or > 99999.999		All		Possible unregistered Sample ID: Check for demographics and add a rerun
<b>WBC Delta Rules</b>								
Rule Name	Priority	Run Selection	Description		Test (s) to be added	Test(s) to be held	Test(s) to be rerun	Operator Alert/Comments
DELWBC010	25	A	WBC DELTA 1: If WBC delta > +/- 50%	If WBC is >= 0 and <= 999.999... and previous order delta check +/- 50% ... within 10 day(s) and If ZWBC is not present				
<b>RBC Rules</b>								
Rule Name	Priority	Run Selection	Description		Test (s) to be added	Test(s) to be held	Test(s) to be rerun	Operator Alert/Comments
RBC001	51	A	DIMORPHIC: If Dimorphic population add SMEAR1	If FRA02 is present	SMEAR1	NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGRE, NRBCRE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGAB		Dimorphic Population: Scan for abnormal RBC morphology, review histograms

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# HEMATOLOGY AUTOVERIFICATION POLICY

RBC002	51	A	RBC ABN DIST: If RBC Abn Distribution AND CBC/ADIFF ordered	If FRA01 is present and If NEUTRE is present	SMEAR1	NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGRE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGAB		RBC Abnormal Distribution: Scan for abnormal RBC morphology
RBC003	51	A	RBC AGG: If RBC Agglutination	If FRS01 is present	SMEAR1	WBC, WBCOR, WBCUC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGRE, NRBCRE, NEUTABLY, MPAB, MONOAB, EOSIAB, BASOAB, IGAB, NRBCAB		RBC Agglutination: Review Slide for abnormal RBC morph
RBC004	51	A	RBC TURB: MCHC>38	If MCHC is < 0 or > 38.4	SMEAR1	WBC, WBCOR, WBCUC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGRE, NRBCRE, NEUTABLY, MPAB, MONOAB, EOSIAB, BASOAB, IGAB, NRBCAB		Turbidity/HGB Interference: ADD RERUN IN ACTION BOX. Warm and rerun, If lipemic: plasma replace/spun HCT. Check for RBC agglut/sphero
RBC004.2	51	A	LOW MCHC: MCHC<30.0 CBC/Diff	If MCHC is >= 0 and <= 29.4 and If NEUTRE is present	SMEAR1	WBC, WBCOR, WBCUC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGRE, NRBCRE, NEUTABLY, MPAB, MONOAB, EOSIAB, BASOAB, IGAB, NRBCAB		MCHC<30.0 Check patient history.
RBC004.2A	51	A	LOW MCHC: MCHC<30.0 CBC/No Diff	If MCHC is >= 0 and <= 29.4 and If NEUTRE is not present		WBC, WBCOR, WBCUC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGRE, NRBCRE, NEUTABLY, MPAB, MONOAB, EOSIAB, BASOAB, IGAB, NRBCAB		MCHC<30.0 Check patient history.
RBC009	51	F	FRAGMENTS: If Fragments?	If order for lab !G only If FRS05 is present	SMEAR1, OPTPLT		WBC, WBCOR, WBCUC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGRE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGAB	Fragments?: Scan for abnormal RBC morphology, schistocytes. Perform PLT EST. ....Internal comment=

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# HEMATOLOGY AUTOVERIFICATION POLICY

<b>RBC009.1</b>	<b>51</b>	<b>F</b>	XN RBC Fragments	If order for lab G only For instrument GXN* If FRS05 is present and If PLT is present	PLTF,SME AR1	WBC, WBCOR, WBCUC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT, PDWSD, RDWCV,MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGR, NRBCRE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGAB, NRBCAB	Fragments?: Scan for abnormal RBC morphology, schistocytes. Perform PLT est. Add comment PLT verified by alternate method
<b>RBC009.1S</b>	<b>51</b>	<b>S</b>	XN RBC Fragments	If order for lab G only For instrument GXN* If FRS05 is present and If PLT is present		WBC, WBCOR, WBCUC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGR, NRBCRE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGAB, NRBCAB	Second Run: Fragments?: Scan for abnormal RBC morphology, schistocytes. Perform PLT est. Add comment PLT verified by alternate method
<b>RBC009S</b>	<b>51</b>	<b>S</b>	FRAGMENTS: If Fragments?	If order for lab !G only If FRS05 is present	SMEAR1, OPTPLT	WBC, WBCOR, WBCUC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGR, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGAB	Second Run: Fragments?: Scan for abnormal RBC morphology, schistocytes. Perform PLT EST. ...Internal comment=
<b>RBC012</b>	<b>51</b>	<b>A</b>	RBC PATH REVIEW: If RBC >6 AND MCV <65 and Site GP	If order for lab G only For instrument GXN* If MCV is >= .001 and <= 65 .. and no previous order ... within 730 day(s) and For instrument GXN* If RBC is < -1 or > 6.01 .. and no previous order ... within 730 day(s)	SMEAR4	NEUTRE, NEUTAB, LYMPRE, LYMPAB, MONORE, MONOAB, BASORE, BASOAB, EOSIRE, EOSIAB, IGR, IGAB	Check for RBC Morph: Send for Path Review. If first occurrence
<b>RBC013</b>	<b>10</b>	<b>A</b>	RBC LINEARITY: If RBC >8.10	If order for lab !G only If RBC is < 0 or > 8.101		WBCOR, WBC, WBCUC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGR, IGAB	RBC Linearity: ADD RERUN IN ACTION BOX. Dilute 1:5 with CELLPACK and rerun in CAP mode
<b>RBC013.1</b>	<b>10</b>	<b>A</b>	XN RBC Linearity	If order for lab G only For instrument GXN* If RBC is < 0 or > 8.001		WBCOR, WBC, WBCUC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGR, IGAB	RBC Linearity: ADD RERUN IN ACTION BOX. Dilute 1:5 with CELLPACK and rerun in Manual Mode. Calc. w/dil factor

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# HEMATOLOGY AUTOVERIFICATION POLICY

RBC015	51	A	RET ABN SCAT: If Ret Abn Scattergram	If order for lab R only If FRA09 is present	SMEAR1	NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGRE, NRBCRE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGAB, RETIRE, RETIAB, IRF, RETHE	Ret Abn Scatt: Add RR for CBC Retic. Dil w/EPK, rerun. Enter Dil factor in RR tab. Ck Retic IRF. If no flags, report. If flags persist follow SOP.
RBC015.1	51	A	RET ABN SCAT: If Ret Abn Scattergram GP	If order for lab G only For instrument GXN* If FRA09 is present	SMEAR1	NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGRE, NRBCRE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGAB, RETIRE, RETIAB, IRF, RETHE	Ret Abn Scatt: Add RR for CBC Retic. Dil w/DCL, rerun. Enter Dil factor in RR tab. Ck Retic IRF. If no flags, report. If flags persist follow SOP.Ret
RBC015.2	51	A	RET ABN SCAT: If Ret Abn Scattergram. Troy only	If order for lab T only If FRA09 is present	SMEAR1	NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGRE, NRBCRE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGAB, RETIRE, RETIAB, IRF, RETHE	Retic Abn Scat: ADD RERUN IN ACTION BOX, Dilute 1:2 or 1:3 and rerun in man mode (% will not change)
RBC016	10	A	RET LINEARITY: If Retic > 23.% OR 0.720 #	If order for lab !G&IT only If RETIRE is < 0 or > 23.001		RETIRE, RETIAB, IRF, RETHE	Retic Linearity: ADD RERUN IN ACTION BOX. Dilute 1:5 with CELLPACK and rerun in cap mode (% will not change)
RBC016.2	10	A	XN Ret Linearity %	If order for lab G only For instrument GXN* If RETIAB is present and For instrument GXN* If RETIRE is < -1 or > 20.1		RETIRE, RETIAB, IRF, RETHE	Retic Linearity: ADD rerun in action box. Dilute w/DCL,rerun,calc w/dil factr. (% will not change)
RBC016.3	10	A	RET LINEARITY: If Retic > 23.% OR 0.720 #	If order for lab T only If RETIRE is < 0 or > 23.001		RETIRE, RETIAB, IRF, RETHE	Retic Linearity: ADD RERUN IN ACTION BOX, Dilute 1:2 or 1:3 and rerun in man mode (% will not change)
RBC020.1E	20	A	HGB CRIT 2: If HGB <=6.4 OR >20 age 3-150Y and ER patient	Patient criteria: 2Y-150Y If HGB is < 6.4 or > 20.1		WBC, WBCOR, WBCUC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGRE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGAB	Critical HGB: Follow SOP
RBC020.1I	20	A	HGB CRIT 2: If HGB <=6.4 OR >20 3Y-150Y and IP	Patient criteria: 3Y-150Y Inpatient onlyIf HGB is < 6.4 or > 20.1		WBC, WBCOR, WBCUC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGRE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGAB	Critical HGB: Follow SOP
RBC020.2	51	A	HGB: If HGB <= 8 OR >18 AND >30 days	Patient criteria: 30D-150Y If HGB is < 7.99 or > 18.1		WBC, WBCOR, WBCUC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGRE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGAB	HGB <= 8 OR > 18: Check Patient History

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# HEMATOLOGY AUTOVERIFICATION POLICY

<b>RBC020.3</b>	<b>20</b>	<b>A</b>	HGB: If HGB <= 10 OR >25 AND 0D-14D	Patient criteria: 0D-14D If HGB is < 9.9 or > 25.1		WBC, WBCOR, WBCUC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGRE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGAB		Critical HGB: Follow SOP.
<b>RBC020.4</b>	<b>20</b>	<b>A</b>	HGB: If HGB <= 8 OR >20 AND 30D-3Y	Patient criteria: 30D-3Y If HGB is < 7.9 or > 20.1		WBC, WBCOR, WBCUC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGRE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGAB		Critical HGB: Follow SOP.
<b>RBC020.5</b>	<b>20</b>	<b>A</b>	HGB: If HGB <= 9 OR >20 AND 14D-30D	Patient criteria: 14D-30D If HGB is < 8.9 or > 20.1		WBC, WBCOR, WBCUC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGRE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGAB		Critical HGB: Follow SOP.
<b>RBC020.O</b>	<b>20</b>	<b>A</b>	HGB CRIT 1: If HGB < 7 OR >20 and OP age 3Y-150Y	Patient criteria: 3Y-199Y Out patient only If HGB is < 6.999 or > 20.1		WBC, WBCOR, WBCUC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGRE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGAB		Critical HGB: Follow SOP
<b>RBC021</b>	<b>10</b>	<b>A</b>	HGB LINEARITY: If HGB > 27.0	If order for lab !G only If HGB is < 0 or > 27.001		WBC, WBCOR, WBCUC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT, RDWSD, RDWCV, MPV		HGB Linearity: ADD RERUN IN ACTION BOX. Dilute 1:5 with CELL PACK and rerun in CAP MODE
<b>RBC021.1</b>	<b>10</b>	<b>A</b>	XN HGB Linearity	If order for lab G only For instrument GXN* If HGB is < 0 or > 25.001		WBC, WBCOR, WBCUC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT, RDWSD, RDWCV, MPV		HGB Linearity: ADD RERUN IN ACTION BOX. Dilute w/ DCL, rerun, calc x dil factr
<b>RBC022</b>	<b>25</b>	<b>A</b>	HGB DELTA 1: If HGB delta > ±3.1 #	If HGB is >= 0 and <= 100... and previous order delta check +/- 3.1 ... within 10 day(s)		WBC, WBCOR, WBCUC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGRE, NRBCRE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGAB, RETIRE, RETIAB, IRF, RETHE, IPF, NRBCAB		HGB Delta failure: Check test history, blood products receipt, surgery, check for clot, check B#
<b>RBC024</b>	<b>20</b>	<b>A</b>	HCT CRIT 1: If HCT > 70.0 AND age <24HR	Patient criteria: 0D-1D If HCT is >= 70.1 and <= 99999		WBC, WBCOR, WBCUC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGRE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGAB		Critical HCT: Check Patient Location, Follow SOP

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# HEMATOLOGY AUTOVERIFICATION POLICY

RBC024.1	20	A	HCT CRIT 2: If HCT < 15 OR > 60 AND >24 hrs	Patient criteria: 1D-150Y If order for lab !G only If HCT is < 14.999 or > 60.1		WBC, WBCOR, WBCUC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGRE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGAB		Critical HCT: Check Location: Follow SOP
RBC024.2	20	A	HCT CRIT 3: If HCT <21 OR > 60 And GP	Patient criteria: 0D-150Y If order for lab G only For instrument GXN* If HCT is < 20.999 or > 60.1		WBC, WBCOR, WBCUC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGRE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGAB		Critical HCT: Follow SOP
RBC024.3	20	A	HCT: If HCT <24 OR > 60	If HCT is < 23.9 or > 60.1		WBC, WBCOR, WBCUC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGRE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGAB		HCT < 24 OR > 60: Check Patient History
RBC025	10	A	HCT LINEARITY: If HCT >74%	If order for lab !G only If HCT is < -1 or > 74.001		WBC, WBCOR, WBCUC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT, RDWSD, RDWCV, MPV		HCT Linearity: ADD RERUN IN ACTION BOX. Dilute 1:5 with CELL PACK and rerun in CAP MODE
RBC025.1	10	A	XN HCT Linearity	If order for lab G only For instrument GXN* If HCT is < -1 or > 75.001		WBC, WBCOR, WBCUC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT, RDWSD, RDWCV, MPV		HCT Linearity: ADD RERUN IN ACTION BOX :Dilute w/ DCL, rerun, calc x dil factr
RBC028	51	A	MCV HIGH: If MCV > 114	If MCV is < 0 or > 114.4 and If NEUTRE is not present		WBCOR, WBC, WBCUC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGRE, IGAB, RETIRE, RETIAB, IRF, RETHE, IPF, NRBCRE, NRBCAB		MCV >114: Review patient history
RBC029	51	F	MCV LOW: If MCV < 60	If MCV is >= 0 and <= 60.4 and If NEUTRE is not present		WBCOR, WBC, WBCUC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGRE, IGAB, RETIRE, RETIAB, IRF, RETHE, IPF, NRBCRE, NRBCAB		MCV < 60: Review patient history
RBC030	51	A	MCV PATH REVIEW: If MCV < 60 OR >114 AND no Previous AND CBC ADIFF	Patient criteria: 0D-150Y If order for lab G only If DUMMY is not present and If MCV is < 60.4 or > 114.4 and If NEUTRE is present and If ZDUM1 is not present .. and no previous order ... within 180 day(s)	SMEAR4,Z DUM1	WBC, WBCOR, WBCUC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGRE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGAB		MCV <60 OR >114:Review slide, check hyperseg/ovalocytes. Path Rev 1st occurrence

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RBC030.2	51	A	MCV PATH REVIEW: If MCV < 60 OR >114 AND no Previous AND CBC ADIFF	Patient criteria: 0D-150Y If order for lab !G only If MCV is < 60.4 or > 114.4 and If NEUTRE is present and If ZDUM1 is not present ... and no previous order ... within 180 day(s)	SMEAR2,Z DUM1	WBC, WBCOR, WBCUC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGR, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGAB		MCV <60 OR >114:Review slide, check hyperseg/ovalocytes. Path Rev 1st occurrence
RBC031	25	A	MCV DELTA: If MCV delta +/-3.1 #	If MCV is >= 0 and <= 150... and previous order delta check +/- 3.1 ... within 10 day(s)		WBC, WBCOR, WBCUC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGR, NRBCRE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGAB, RETIRE, RETIAB, IRF, RETHE, IPF, NRBCAB		MCV Delta failure: Check patient B#
RBC032	51	A	RDW-CV: If RDW-CV > 25 AND RDW-SD >70 AND No Previous sample AND CBCWD	If NEUTRE is present and If RDWCV is < 0 or > 25.4 .. and no previous order ... within 730 day(s) and If RDWSD is < 0 or > 70.4	SMEAR1	WBC, WBCOR, WBCUC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGR, NRBCRE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGAB, RETIRE, RETIAB, IRF, RETHE, IPF, NRBCAB		RDW-CV and RDW-SD High and 1st occurrence: Perform slide review, follow SOP

## RBC Criticals

Rule Name	Priority	Run Selection	Description		Test (s) to be added	Test(s) to be held	Test(s) to be rerun	Operator Alert/Comments
CRINHCTUH	20	A	Critical High: Unregistered Rule for HCT	If HCT is < -1 or > 60.001 and If UNREG is present		All		Possible unregistered Sample ID: Check for demographics and add a rerun
CRINHCTUL	20	A	Critical Low Unregistered Rule for HCT	If order for lab !G only If HCT is < 14.999 or > 99999.999 and If UNREG is present		All		Possible unregistered Sample ID: Check for demographics and add a rerun
CRINHCTUL.1	20	A	Critical Low Unregistered Rule for HCT	If order for lab G only For instrument GXN* If HCT is < 20.999 or > 99999.999 and If UNREG is present		All		Possible unregistered Sample ID: Check for demographics and add a rerun
CRINHGBUH	20	A	Critical High: Unregistered Rule for HGB	If HGB is < -1 or > 20.001 and If UNREG is present		All		Possible unregistered Sample ID: Check for demographics and add a rerun
CRINHGBUL	20	A	Critical Low: Unregistered Rule for HGB	If order for lab G only For instrument GXN* If HGB is < 6.999 or > 99999.999 and If UNREG is present		All		Possible unregistered Sample ID: Check for demographics and add a rerun

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CRINHGBUL.1	20	A	Critical Low Unregistered Rule for HGB	If order for lab !G only If HGB is < 5.5 or > 999999 and If UNREG is present		All		Possible unregistered Sample ID: Check for demographics and add a rerun
CRINRBC020.1E	20	A	HGB CRIT 1: If HGB <=6.4 OR > 20 and EC 3Y to adult	Patient criteria: 3Y-150Y If HGB is < 6.4 or > 20.1 and If ZHGB is not present				
CRINRBC020.1I	20	A	HGB CRIT 1: If HGB <=6.4 OR > 20 and IP 3Y to adult	Patient criteria: 3Y-150Y Inpatient only If HGB is < 6.4 or > 20.1 and If ZHGB is not present				
CRINRBC020.3	20	A	HGB CRIT 1: If HGB < =10 OR > 25 and age 0D-14D color coding	Patient criteria: 0D-14D If HGB is < 9.9 or > 25.1 and If ZHGB is not present				
CRINRBC020.4	20	A	HGB CRIT 1: If HGB < =8 OR > 20 and age 30D-3Y color coding	Patient criteria: 30D-3Y If HGB is < 7.9 or > 20.1 and If ZHGB is not present				
CRINRBC020.5	20	A	HGB CRIT 1: If HGB < 9 OR > 20 and age 14D-30D color coding	Patient criteria: 14D-30D If HGB is < 8.9 or > 20.1 and If ZHGB is not present				
CRINRBC020.O	20	A	HGB CRIT 1: If HGB < 7 OR > 20 and OP age 3Y to adult	Patient criteria: 3Y-199Y Outpatient only If HGB is < 6.999 or > 20.1 and If ZHGB is not present				
CRINRBC024	20	A	HCT CRIT 1: If HCT >70 AND Age <24HR	Patient criteria: 0D-1D If HCT is < 0 or > 70.1 and If ZHCT is not present				
CRINRBC024.1	20	A	HCT CRIT 1: If HCT <15 or >60 and >24hrs	If order for lab !G only If HCT is < 14.999 or > 60.1 and If ZHCT is not present				
CRINRBC024.2	20	A	HCT CRIT 1: If HCT <21 OR >60 GP	If order for lab G only For instrument GXN* If HCT is < 20.999 or > 60.1 and If ZHCT is not present				
<b>RBC Delta Rules</b>								
Rule Name	Priority	Run Selection	Description		Test (s) to be added	Test(s) to be held	Test(s) to be rerun	Operator Alert/Comments
DELRBC022	25	A	HGB DELTA 1: If HGB delta > +/- 3.1#	If HGB is >= -1 and <= 9999.999... and previous order delta check +/- 3.1 ... within 10 day(s) and If ZHGB is not present				

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# HEMATOLOGY AUTOVERIFICATION POLICY

DELRBC031	25	A	MCV DELTA 1: If MCV delta > +/- 3.1#	If MCV is >= -1 and <= 9999.999... and previous order delta check +/- 3.1 ... within 10 day(s) and If ZMCV is not present				
<b>PLT Rules</b>								
Rule Name	Priority	Run Selection	Description		Test (s) to be added	Test(s) to be held	Test(s) to be rerun	Operator Alert/Comments
PLT001	51	F	PLT ABN SCAT: If PLT Abn Scattergram	If order for lab !G only If FPA04 is present	SMEAR1, OPTPLT		WBC, WBCOR, WBCUC, HGB, HCT, MCV, MCH, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGRE, NEUTAB, LYMPAB, MONOAB, EOOSIAB, BASOAB, IGAB	PLT Abn Scat: Add Comment PLT verified by alternate method
PLT001.3	51	F	PLT ABN SCAT: If PLT Abn Scattergram	If order for lab G only For instrument GXN* If FPA04 is present	PLTF,IPF, SMEAR1		WBC, WBCOR, WBCUC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGRE, NRBCRE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGAB, NRBCAB	PLT Abn Scat: Add Comment PLT verified by alternate method
PLT001.3S	51	S	PLT ABN SCAT: If PLT Abn Scattergram	If order for lab G only For instrument GXN* If FPA04 is present		WBC, WBCOR, WBCUC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT, DWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGRE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGAB, RETIRE, RETIAB, IRF, RETHE, IPF		SECOND RUN: PLT Abn Scat: Add Comment PLT verified my alternate method
PLT001S	51	S	PLT ABN SCAT: If PLT Abn Scattergram	If order for lab !G only If FPA04 is present		WBC, WBCOR, WBCUC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT, DWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGRE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGAB, RETIRE, RETIAB, IRF, RETHE, IPF		SECOND RUN: PLT Abn Scat: Add Comment PLT verified my alternate method

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# HEMATOLOGY AUTOVERIFICATION POLICY

PLT003	51	A	PLT CLMP: If PLT Clump(s)	If order for lab !G only If FPS02 is present	SMEAR1	WBC, WBCOR, WBCUC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGRE, NRBCRE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGAB, IPF, NRBCAB		If PLT Clump(s): Check for clot, Review Slide, PLT and WBC est
PLT003.1	51	A	PLT CLMP: If PLT Clumps?	If FPS01 is present	SMEAR1	WBC, WBCOR, WBCUC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGRE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGAB		PLT Clumps? Check for clot. Review Slide; WBC and PLT estimate
PLT004	51	F	Thrombocytopenia: If PLT < 75	Patient criteria: 0D-199Y If order for lab !G only If PLT is < 74.9 or > 999999	OPTPLT,Z FPA02	WBC, WBCOR, WBCUC, RBC, HGB, HCT MCV, MCH, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGRE, NRBCRE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGAB, RETIRE, RETIAB, IRF, RETHE, IPF, NRBCAB	WBC, WBCOR, WBCUC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGRE, NRBCRE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGAB, RETIRE, RETIAB, IRF, RETHE, IPF, NRBCAB	Thrombocytopenia: Check for a clot, review smear
PLT004.1	20	A	PLT CRIT 1: If PLT <20 OR >1000	Patient criteria: 0D-199Y If PLT is < 19 or > 1001	SMEAR1	WBCOR, WBC WBCUC, RBC, HGB HCT, MCV, MCH, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGRE, IGAB, RETIRE, RETIAB, IRF, RETHE, IPF, NRBCRE, NRBCAB		PLT Critical: Check for clot, review smear. First occurrence >1000 send for Path Review.
PLT004.4	51	F	XN Thrombocytopenia GP	If order for lab G only For instrument GXN* If PLT is >= 0 and <= 74.999	PLTF,SME AR1,IPF		All	Thrombocytopenia: Check for a clot, review smear
PLT004.4S	51	S	Thrombocytopenia GP subsequent run	If order for lab G only For instrument GXN* If PLT is >= 0 and <= 74.999		WBC, WBCOR, WBCUC, RBC, HGB, HCT, MCV MCH, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGRE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGAB		Second Run: Thrombocytopenia: Check for a clot, review smear

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# HEMATOLOGY AUTOVERIFICATION POLICY

PLT004S	51	S	Thrombocytopenia: If PLT < 75	If order for lab !G only If PLT is >= 0 and <= 74.999		WBCOR, WBC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGRE, IGAB		Second Run:Thrombocytopenia: Check for a clot
PLT007.1	25	A	PLT DELTA 1: If PLT delta > ± 50%	If PLT is >= 0 and <= 10000... and previous order delta check +/- 50% ... within 10 day(s)		WBC, WBCOR, WBCUC, RBC, HGB, HCT, MCV MCH, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGRE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGAB		PLT Delta failure: check for a clot if decreased from previous sample.
PLT007.2	25	A	PLT DELTA 2: If PLT delta > ± 50% AND PLT <100	Patient criteria: 0D-199Y If PLT is >= 0 and <= 100... and previous order delta check +/- 50% ... within 10 day(s)	SMEAR1	WBC, WBCOR, WBCUC, RBC, HGB, HCT, MCV MCH, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGRE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGAB		PLT Delta failure: Check for a clot, if trending:no action; path review if platelet delta, PLT<101 and schist >1/hpf
PLT009	10	A	PLT LINEARITY: If PLT > 4750	If order for lab !G only If PLT is < 0 or > 4750.001		WBC, WBCOR, WBCUC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGRE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGAB		PLT Linearity: ADD RERUN IN ACTION BOX Dilute 1:5 with CELLPACK and rerun in CAP Mode.
PLT009.1	10	A	XN PLT Linearity	If order for lab G only For instrument GXN* If PLT is < 0 or > 5000.001		WBC, WBCOR, WBCUC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGRE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGAB		PLT Linearity: ADD RERUN IN ACTION BOX. Dilute w/DCL, rerun,calc w/dil factr.
PLTSAT.CHECK	15	A	MRN Rule: Previous PLT SATELLITOSIS Rule	If PLT is >= -1 and <= 999999 and if ZPSAT is present	SMEAR1	WBC, WBCOR, WBCUC, RBC, HGB, HCT, MCV, MCHC, PLT, REWSD, RDWCV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGRE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGAB		Previous PLT Satellitosis: Review Slide and check for clots.

## PLT Criticals

Rule Name	Priority	Run Selection	Description		Test (s) to be added	Test(s) to be held	Test(s) to be rerun	Operator Alert/Comments
CRINPLT004.1	20	A	PLT CRIT 1: If PLT <20.00 OR >1000.0	If PLT is < 20 or > 1000.001 and If ZFPLT is not present				
CRINPLTUH	20	A	Critical High: Unregistered Rule for PLT	If PLT is < -1 or > 1000.001 and If UNREG is present		All		Possible unregistered Sample ID: Check for demographics and add a rerun

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# HEMATOLOGY AUTOVERIFICATION POLICY

CRINPLTUHX	20	A	XN Critical High: Unregistered Rule for PLT	If order for lab G only For instrument GXN* If PLT is < -1 or > 1000.001 and If UNREG is present		All		Possible unregistered Sample ID: Critical PLT
CRINPLTUL	20	A	Critical Low: Unregistered Rule for PLT	If PLT is < 20 or > 99999.999 and If UNREG is present		All		Possible unregistered Sample ID: Check for demographics and add a rerun
CRINPLTULX	20	A	XN Critical Low: Unregistered Rule for PLT	If order for lab G only For instrument GXN* If PLT is < 20 or > 99999.999 and If UNREG is present		All		Possible unregistered Sample ID: Check for demographics and add a rerun
<b>PLT Delta Rules</b>								
Rule Name	Priority	Run Selection	Description		Test (s) to be added	Test(s) to be held	Test(s) to be rerun	Operator Alert/Comments
DELPLT007.1	25	A	PLT DELTA 1: If PLT delta > ± 50%	If PLT is >= 0 and <= 10000... and previous order delta check +/- 50% ... within 10 day(s) and If ZFPLT is not present				
DELPLT007.2	25	A	PLT DELTA 2: If PLT delta > ± 50% AND PLT <100	If PLT is >= 0 and <= 100... and previous order delta check +/- 50% ... within 10 day(s) and If ZFPLT is not present				
<b>Additional Rules</b>								
Rule Name	Priority	Run Selection	Description		Test (s) to be added	Test(s) to be held	Test(s) to be rerun	Operator Alert/Comments
ADD002	51	O	NRBC PRE-TEST: If age < 24 months AND no NRBC ordered	Patient criteria: 0D-24M If order for lab !G only If NRBCAB is not present and If WBC is present	NRBCRE, NRBCAB			
ADD004	51	O	MCHC Prefix. If only H & H ordered ADD MCHC and PLT	If HGB is present and If MCHC is not present and If PLT is not present	MCHC,PLT			Check for a Clot
ADD004.1	51	O	MCHC Prefix; if only HCT ordered ADD MCHC and PLT	If HCT is present and if HGB is not present and if MCHC is not present and if PLT is not present	MCHC,PLT			Check for a Clot
ADD005	51	O	Schistocyte Prefix	If SCHIS is present	SMEAR4			
ADD006	51	O	Path Ordered Make two slides	If PATH is present	SMEAR4			Path/Bone Marrow: retain two slides
ADD007	51	O	Peds Ordered Make two slides	If PEDS is present	SMEAR4			PEDS: retain two slides
ADD008	51	O	If MRN 3135355 and CBC then add NRBC	If WBC is present	NRBCRE, NRBCAB			

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# HEMATOLOGY AUTOVERIFICATION POLICY

<b>BLAST.CHECK</b>	15	A	MRN Rule: Previous Blasts Rule	If NEUTRE is >= -1 and <= 99999 and if ZBLST is present	SMEAR1	WBC, WBCOR, WBCUC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGRE, NRBCRE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGAB, IPF, NRBCAB		Previous Blasts: Review Slide
<b>BLAST.MRN.FLAG</b>	15	O	MRN Rule: Previous Blasts	If NEUTRE is present	ZBLST			
<b>CLUMPER.CHECK</b>	15	F	MRN Rule: Previous Clumper Rule	If PLT is >= -1 and <= 999999 and if ZCLMP is present	SMEAR 1	WBC, WBCOR, WBCUC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGRE, NRBCRE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGAB, IPF, NRBCAB		Previous PLT Clumper: Review Slide and check for clots.

## Function Rules

Rule Name	Priority	Run Selection	Description		Test (s) to be added	Test(s) to be held	Test(s) to be rerun	Operator Alert/Comments
<b>FUNC1.0</b>	51	A	IF XE FUNCTION ERROR: If XEERRF is present	If XEERRF is present		WBC, WBCOR, WBCUC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGRE, NRBCRE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGAB, NRBCAB		Function Error: Hold results, check sample integrity. ADD RERUN in action box if sample is acceptable
<b>FUNC10</b>	51	A	If IRF asterisk Error then hold all	If IRF is present		WBC, WBCOR, WBCUC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGRE, NRBCRE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGAB, NRBCAB		Result error: Hold results: Check sample integrity. ADD RERUN in action box if sample is acceptable.
<b>FUNC11</b>	51	A	If RETHE asterisk Error then hold all	If RETHE is present		WBC, WBCOR, WBCUC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGRE, NRBCRE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGAB, NRBCAB		Result error: Hold results: Check sample integrity. ADD RERUN in action box if sample is acceptable.
<b>FUNC2.0</b>	51	A	IF XE RESULT ERROR: If XEERRR is present	If XEERRR is present		WBC, WBCOR, WBCUC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGRE, NRBCRE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGAB, NRBCAB		Result Error: Hold results, check sample integrity. ADD RERUN in action box if sample is acceptable

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# HEMATOLOGY AUTOVERIFICATION POLICY

<b>FUNC3.0</b>	<b>51</b>	<b>A</b>	WBC ASTERISK ERROR: If Instrument Asterisk Error	If WBCOR is present	SMEAR1	WBCOR, WBC WBCUC, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGR, IGAB		WBC Asterisk Flag: Scan slide to confirm
<b>FUNC4.0</b>	<b>51</b>	<b>F</b>	Retic Action Message: If Instrument Asterisk Error	If order for lab T only If PLT is present	OPTPLT,S MEAR1		WBC, WBCOR, WBCUC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGR, NRBCRE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGAB, NRBCAB	Retic Action Message: Check for a clot. Review smear per SOP.
<b>FUNC4.0G</b>	<b>51</b>	<b>F</b>	PLT ASTERISK ERROR: If Instrument Asterisk Error	If order for lab G only For instrument GXN* If PLT is present	PLTF,SME AR1	WBC, WBCOR, WBCUC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGR, NRBCRE, NEUTAB, LYMPAB, MAONOAB, EOSIAB, BASOAB, IGAB, RETIRE, RETIAB, IRF, RETHE, IPF NRBCAB	WBC, WBCORE, WBCUC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGR, NRBCRE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGAB, NRBCAB	PLT Asterisk Flag: If reflexed PLT-F acceptable, report, otherwise perform slide review
<b>FUNC4.0GS</b>	<b>51</b>	<b>S</b>	PLT ASTERISK ERROR: If Instrument Asterisk Error	If order for lab G only For instrument GXN* If PLT is present	PLTF,SME AR1	WBC, WBCOR, WBCUC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGR, NRBCRE, NEUTAB, LYMPAB, MAONOAB, EOSIAB, BASOAB, IGAB, RETIRE, RETIAB, IRF, RETHE, IPF NRBCAB		PLT Asterisk Flag: If reflexed PLT-F acceptable, report, otherwise perform slide review
<b>FUNC5.0</b>	<b>51</b>	<b>A</b>	IG ASTERISK ERROR: If Instrument Asterisk Error	If order for lab !G only If IGR is present and If NEUTRE is present	SMEAR1	NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGR, IGAB		IG Asterisk Flag: Scan slide to confirm
<b>FUNC5.1</b>	<b>51</b>	<b>A</b>	IG ASTERISK ERROR: If Instrument Asterisk Error	If order for lab G only If IGR is present and If NEUTRE is present	SMEAR1	NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGR, IGAB		IG Asterisk: Check pt history, if trending upward review smear

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# HEMATOLOGY AUTOVERIFICATION POLICY

<b>FUNC6.0</b>	<b>51</b>	<b>A</b>	IPF ASTERISK ERROR: If Instrument Asterisk Error	If IPF is present	SMEAR1	WBC, WBCOR, WBCUC, RBC, HGB, HCT, MCV, MCH, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, IGRE, NRBCRE, NEUTAB, LYMPAB, MAONOAB, EOSIAB, BASOAB, IGAB, RETIRE, RETIAB, IRF, RETHE, IPF NRBCAB		IPF Asterisk Flag :Check for a clot. Scan slide to confirm
<b>FUNC7.0</b>	<b>51</b>	<b>A</b>	If RBC asterisked Error then hold all	If RBC is present		WBCOR, WBC, WBCUC, RBC, HGB, HCT, MCV, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGRE, IGAB, RETIRE, RETIAB, IRF, RETHE, IPF, NRBCRE, NRBCAB		Result error: Hold results: Check sample integrity. ADD RERUN in action box if sample is acceptable.
<b>FUNC8.0</b>	<b>51</b>	<b>A</b>	If RETIRE asterisked Error then hold all	If RETIRE is present		WBCOR, WBC, WBCUC, RBC, HGB, HCT, MCV, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGRE, IGAB, RETIRE, RETIAB, IRF, RETHE, IPF, NRBCRE, NRBCAB		Result error: Hold results: Check sample integrity. ADD RERUN in action box if sample is acceptable.
<b>FUNC9.0</b>	<b>51</b>	<b>A</b>	If RETIAB asterisked Error then hold all	If RETIAB is present		WBCOR, WBC, WBCUC, RBC, HGB, HCT, MCV, MCHC, PLT, RDWSD, RDWCV, MPV, NEUTRE, LYMPRE, MONORE, EOSIRE, BASORE, NEUTAB, LYMPAB, MONOAB, EOSIAB, BASOAB, IGRE, IGAB, RETIRE, RETIAB, IRF, RETHE, IPF, NRBCRE, NRBCAB		Result error: Hold results: Check sample integrity. ADD RERUN in action box if sample is acceptable.

## CALC Rules

Rule Name	Priority	Run Selection	Description		Test (s) to be added	Test(s) to be held	Test(s) to be rerun	Operator Alert/Comments
<b>CALC.BASOA</b>	<b>51</b>	<b>A</b>	BASOA Calculation	If BASO is present and If WBC is present				
<b>CALC.BLASTA</b>	<b>51</b>	<b>A</b>	BLASTA Calculation	If BLAST is present and If WBC is present				
<b>CALC.CLM.FLAG</b>	<b>51</b>	<b>O</b>	MRNL Rule: Previous CLUMPER	If PLT is present	ZCLMP			
<b>CALC.DEL.NRBCMI</b>	<b>51</b>	<b>A</b>	NRBCMI Zero-Count Deletion	If NRBCMI is >= 0 and <= 0	DELETE: NRBCMI, NRBCMA			
<b>CALC.EOSIA</b>	<b>51</b>	<b>A</b>	EOSIA Calculation	If EOSI is present and If WBC is present				
<b>CALC.FLYMPA</b>	<b>51</b>	<b>A</b>	FLYMPA Calculation	If FLYMP is present and If WBCBF is present				

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## HEMATOLOGY AUTOVERIFICATION POLICY

CALC.FNEUTA	51	A	FNEUTA Calculation	If FNEUT is present and If WBCBF is present				
CALC.HAIRYA	51	A	HAIRYA Calculation	If HAIRY is present and If WBC is present				
CALC.LYMPA	51	A	LYMPA Calculation	If LYMP is present and If WBC is present				
CALC.METAA	51	A	METAA Calculation	If META is present and If WBC is present				
CALC.MONOA	51	A	MONOA Calculation	If MONO is present and If WBC is present				
CALC.MYELOA	51	A	MYELOA Calculation	If MYELO is present and If WBC is present				
CALC.NEUTA	51	A	NEUTA Calculation	If NEUT is present and If WBC is present				
CALC.NRBCMA	51	A	NRBCMA Calculation	If NRBCMI is present and If WBC is present				
CALC.OTHERA	51	A	OTHERA Calculation	If OTHER is present and If WBC is present				
CALC.PLASMA	51	A	PLASA Calculation	If PLAS is present and If WBC is present				
CALC.PROMYA	51	A	PROMYA Calculation	If PROMY is present and If WBC is present				
CALC.RLYMP	51	A	RLYMPA Calculation	If RLYMP is present and If WBC is present				
CALC.WBC.01	41	A	WBC Correction - Copy WBCOR to WBC	If WBCOR is >= 0 and <= 99999				
CALC.WBC.02	41	A	WBC Uncorrection - NRBCAB	If order for lab !G only If NRBCAB is >= 0 and <= 99999 and If WBCOR is >= .001 and <= 99999				
CALC.WBC.03	41	A	WBC Correction - NRBCMI	If order for lab !G only If NRBCMI is >= .001 and <= 99999 and If WBCUC is >= .001 and <= 99999				
CALC.WBC.04	41	A	WBC Correction - NRBCM	If NRBCMI is >= .001 and <= 99999 and If WBCOR is >= .001 and <= 99999 and If WBCUC is not present				

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# HEMATOLOGY AUTOVERIFICATION POLICY

DM Rules								
Rule Name	Priority	Run Selection	Description		Test (s) to be added	Test(s) to be held	Test(s) to be rerun	Operator Alert/Comments
Body Fluid Rules								
Rule Name	Priority	Run Selection	Description		Test (s) to be added	Test(s) to be held	Test(s) to be rerun	Operator Alert/Comments
BLFD01	51	A	FLUID WBC ABN SCT: If WBCBF Abn Scattergram	Patient criteria: 0D-999Y If FWA01 is present and If WBCBF is present	FNEUT	WBCBF		WBCBF Abnormal Scattergram: Perform alternate method, add Fluid MDIFF
BFLD02	51	A	WBCBF LINEARITY: Linearity >10000	If order for lab !G only if WBCBF is < -1 or > 10000.001		SOURBF, COLRBF, TCBF, WBCBF, RBCBF, PMNREF, PMNABF, MNREF, MNABF		WBCBF Linearity: Dilute 1:5 with CELLPACK and Rerun. Perform Calc.
BFLD02.1	51	A	XN WBCBF Linearity	If order for lab G only if WBCBF is < -1 or > 10000.001		SOURBF, COLRBF, TCBF, WBCBF, RBCBF, PMNREF, PMNABF, MNREF, MNABF		WBCBF Linearity: Dilute 1:5 with CELLPACK and Rerun. Perform Calc.
BFLD03	51	A	RBCBF LINEARITY: Linearity > 5000000	If order for lab !G only if RBCBF is < -1 or > 5000.001		SOURBF, COLRBF, TCBF, WBCBF, RBCBF, PMNREF, PMNABF, MNREF, MNABF		RBCBF Linearity: Dilute 1:5 with CELLPACK and Rerun. Perform Calc.
BLFD03.1	51	A	XN RBCBF Linearity	If order for lab G only if RBCBF is < -1 or > 5000.001		SOURBF, COLRBF, TCBF, WBCBF, RBCBF, PMNREF, PMNABF, MNREF, MNABF		RBCBF Linearity: Dilute 1:5 with CELLPACK and Rerun. Perform Calc.
BFLD04	51	A	WBCBF LINEARITY: Linearity < 0.001	If WBCBF is >=0 and <=0.001		SOURBF, COLRBF, TCBF, WBCBF, RBCBF, PMNREF, PMNABF, MNREF, MNABF		WBCBF Linearity: Perform slide review or cytospin

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## Document History

Signature	Date	Revision #		Related Documents Reviewed/ Updated
Prepared by: Noelle Procopio, MT(ASCP)SH	07/01/1999			
Approved by: Joan C, Mattson, MD	07/01/1999			
Frederick L. Kiechle, MD	07/01/1999			
Reviewed by: (Signature)	Date	Revision #	Modification	Related Documents Reviewed/ Updated
Joan C. Mattson, MD	07/01/1999		New policy	
Frederick L. Kiechle, MD	07/01/1999			
Joan C. Mattson, MD	2000		No change	
Joan C. Mattson, MD	2001		No change	
Joan C. Mattson, MD	2002		No change	
Joan C. Mattson, MD	01/02/2003		No change	
Frederick L. Kiechle, MD	01/03/2003			
Joan C. Mattson, MD	01/12/2004		No change	
Frederick L. Keichle, MD	01/12/2004			
Joan C. Mattson, MD	12/21/2005		Added retics and IG; changed LIS name from Ulticare to Misys.	
Elizabeth Sykes, MD	12/21/2005			
Joan C. Mattson, MD	11/10/2006	01	Added WSR	
Mark D. Kolins, MD	11/17/2006			
Ann Marie Blenc, MD	05/21/2007		New director	
Mark D. Kolins, MD	05/21/2007			
Ann Marie Blenc, MD	01/09/2008	02	New procedure format; changed Misys to LIS; elaborated on quality control; added Attachment A re validation samples.	
Ann Marie Blenc, MD	01/09/2009		No change	
Ann Marie Blenc, MD	02/08/2010	03	Added delta checks; removed Cancer Center document control copy.	

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Ann Marie Blenc, MD	02/21/2011	04	Removed reference to SF3000	NA
Ann Marie Blenc, MD	10/28/2011	05	Updated for changes associated with the SOFT LIS.	NA
Ann Marie Blenc, MD Mark D. Kolins, MD	04/03/2013 04/04/2013	06	Added ESR autoverification and changed verbage for documentation; updated autoverification rules for new WAM (monos, eos, retics, IG, MCHC, RDW-CV, RDW-SD, ESR {iSED}).	NA
Ann Marie Blenc, MD	04/15/2013	07	Added Attachment B.	NA
Ann Marie Blenc, MD	01/15/2014	08	Turned Attachment A into a validation worksheet; updated Attachment B; added prior years department chair signoffs.	NA
Ann Marie Blenc, MD	02/20/2016	09	Updated ESR autoverification limits and rules; added RET ABN SCATT to verification rules; updated WAM rules attachment.	NA
Ann Marie Blenc, MD	05/01/2017	10	Added MRN rules to Att. A worksheet; updated Att. B. to current WAM rules.	NA
Elizabeth Sykes, MD	02/02/2018			
Peter Millward, MD	01/30/2019		New Medical Director	
Ann Marie Blenc, MD	05/01/2019	11	Updated MCV rule from 66 to 60.	NA

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