

## HEMATOLOGY WAM WORKFLOWS

RC.HM.WF.042.r02

### Purpose

To ensure the proper processing of Hematology samples that are validated in the Sysmex WAM system.

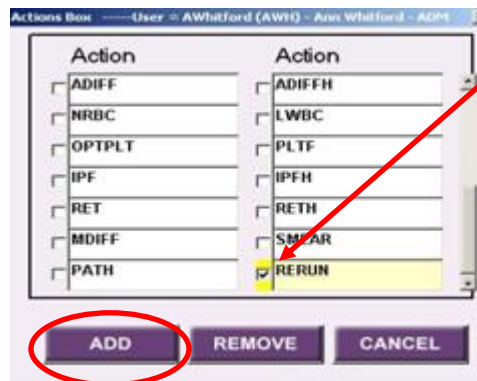
### Procedure

#### HIGH MCHC

If there is a high MCHC (>38) result on first run of sample:

**If warming sample to 37 degrees:**

1. Do not validate sample. In **ACTIONS** box, click on Rerun then ADD.



## HEMATOLOGY WAM WORKFLOWS

- After warming, run sample in open mode on analyzer (to prevent specimen cool-down). If MCHC is acceptable, choose Run 2 in WAM from the Rerun tab.

**Result Validation** | **Rerun** | Manual Differential | Morphology | Previous F

### SELECTION RESULTS

Group	Test	Result
AM	WBCOR	5.9
	RBC	4.82
	HGB	15.1
	HCT	45.4
	MCV	94
	MCH	30
	MCHC	35
	PLT	224
	RDWSD	45
	RDWCV	13
	NEUTAB	3.3
	LYMPAB	2.0
	MONOAB	0.3
	EOSIAB	0.2
	BASOAB	0.0
	NEUTRE	56.7
	LYMPRE	34.5
	MONORE	5.4
	EOSIRE	2.7
	BASORE	0.5
	IGRE	0.2
	IGAB	0.01

Instrument: TXE511  
Dilution Factor:

**1**  
5.9  
4.82  
15.1  
45.4  
94  
30  
35  
224  
45  
13  
3.3  
2.0  
0.3  
0.2  
0.0  
56.7  
34.5  
5.4  
2.7  
0.5  
0.2  
0.01  
Graphics  
TXE511

**2**  
5.9  
4.82  
15.1  
45.4  
94  
30  
35  
224  
45  
13  
3.3  
2.0  
0.3  
0.2  
0.0  
56.7  
34.5  
5.4  
2.7  
0.5  
0.2  
0.01  
Graphics  
TXE511

In Rerun tab, click on Purple run box to choose run.

- Add "possible cold agglutinin" comment by double clicking on COM field next to MCHC result field and selecting HE03 and SAVE.

- or  according to SOP.

- If smear does not need review, "Cancel Smear" in pop-up box.

[WAM4] Discipline: Hematology Site ID:T Site Name:TR0

SMEAR test(s) SMEAR1 not reviewed. Select an action on SMEAR.

### If 1:5 dilution is made:

- Do not validate sample. In Action box, add Rerun.
- Prepare dilution then run dilution in capillary mode using barcode scanner.
- From Rerun tab, select the CBC from the diluted run and the automated differential from the initial run. To do so, select Run 2, go to Run 1 and click on the gray boxes next to the diff parameters that you want to report. These values will then populate the result field. (You will not see a checkmark or X in the boxes you click on.) Then click on STORE.

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## HEMATOLOGY WAM WORKFLOWS

- Go to the Result Validation tab and add appropriate correction comment (lipemic, icteric) as internal comment and validate as appropriate. If cold agglutinin, enter as comment next to MCHC so that this gets reported on patient chart.
- An Action on Smear pop-up box will appear. If slide is to be reviewed by morph bench, QUIT. If a slide does not need review, Cancel Smear.

The screenshot displays the WAM4 Result Validation Screen. The top section shows patient demographics: Sample ID 40140006217, MRN 4003362, Patient Name TRYSMEX, WAMA, Date of Birth 04/01/1984, and Sample Loc. 00. The collection date is 03/14/2013 at 10:00. The requestor is MA. HONGWEI. The OP Alerts section on the right lists several warnings: WBC Delta failure, HGB Delta failure, MCV Delta failure, and Turbidity/HGB Interference. The main area shows the Selection Results for the test, with columns for Run 1 and Run 2. The results are as follows:

Group	Test	Result	Run 1	Run 2
ALL	WBCOR	6.3	6.0	6.3
	RBC	2.62	2.51	2.62
	HGB	24.8	24.7	24.8
	MCV	95	95	95
	MCH	37	37	37
	MCHC	37	37	37
	PLT	132	132	132
	RDWSD	39	39	39
	RDWCV	17	17	17
	NEUTAB	3.9	3.9	3.9
	LYMPAB	1.3	1.3	1.3
	MONOAB	0.6	0.6	0.6
	EOSAB	0.3	0.3	0.3
	RASOAB	0.0	0.0	0.0
	NEUTRE	63.9	63.9	63.9
	LYMPRE	21.4	21.4	21.4
	MONORE	9.8	9.8	9.8
	EOSIRE	4.5	4.5	4.5
	RASORE	0.2	0.2	0.2
	IGRE	0.2	0.2	0.2
	IGAB	0.01	0.01	0.01

The bottom of the screen shows the instrument TXE511 and the dilution factor. The bottom right corner has buttons for DETAILS, ACTIONS, COMMENTS, REFRESH, SWITCH TO QUERY SCREEN, ACCEPT, and QUIT.

### If you perform a HCT manually:

- Replace the analyzer HCT value with the manual result by editing the analyzer results. Click on the result to be edited and hit 'delete'. Answer YES to pop-up box asking if you want to modify result, then enter manual result.
- Replace the MCV and MCHC indices with the recalculated values.
- Add internal comments: "Manual HCT. RBC indices recalculated."
- STORE and validate as appropriate.
- Action on smear box will pop-up. If smear needs review at morph bench, QUIT.
- If smear does not need review, Cancel Smear.

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### CBCND THAT REQUIRES WBC or PLT SLIDE REVIEW

A. If all parameters except WBC or PLT autoverify:

1. **HST tech** – QUIT.
2. **Morph Tech** –
  - a. Review slide.
  - b. In Morphology tab, perform “Morphology Checks” by clicking on and selecting appropriate responses for WBC estimate, instrument flags, RBC morphology and platelet estimate. If significant RBC morphology is present, you may enter appropriate grading in Diff Comment field (since morphology doesn’t go to LIS on a CBCND).
  - c. In Result Validation tab: double click on Result field next to Smear 1 in the Manual Column.
  - d. Select ‘Verified’ and SAVE.
  - e. STORE and Validate All.

B. If none of CBC parameters autoverify:

1. **HST tech** –
  - a. In Result Validation tab, click on ALL column to check all parameters.
  - b. Deselect parameter to be reviewed (PLT or WBC and WBCOR) so smear can be reviewed by morph tech.
  - c. Validate Selection and ACCEPT or QUIT.
2. **Morph tech** –
  - a. Review slide.
  - b. In Morphology tab, perform “Morphology Checks” by clicking on and selecting appropriate responses for WBC estimate, instrument flags, RBC morphology and platelet estimate. If significant RBC morphology is present, you may enter appropriate grading in Diff Comment field (since morphology doesn’t go to LIS on a CBCND).
  - c. In Result Validation tab: double click on Result field next to Smear 1 in the Manual Column.
  - d. Select “Verified” and SAVE.
  - e. STORE and Validate All.

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## HEMATOLOGY WAM WORKFLOWS

### PLT < 75

1. Platelets less than 75 bill/L will automatically reflex for an optical PLT. In the example below, the initial results appear in the Run 1 column:

11090010110  
1002310  
WAM, DONOTUSEME  
10/30/1977 1035 M  
300001.01

Collection D/T 04/09/2013 11:00  
Receipt D/T 04/09/2013 12:09  
Request Loc  
Req. Name CHEN, L. LILEI  
Req. Phone  
Sel. Criteria ALL TYPES

Requestor Code  
Care Unit CORE3  
Room Number  
Diagn. Code 1  
Diagn. Code 2

Thrombocytopenia: Check for a clot, review smear

Result Validation Rerun Manual Differential Morphology Previous Result Critical Results

**INSTRUMENT**

Instr	Test	Result	Com	Run 1	P-Date 03/20/13	P Res	P Com
WBC				5.9		5.9	
WBCOR				5.9		5.9	
RBC				4.82		4.82	
HGB				15.1		15.1	
HCT				45.4		45.4	
MCV				94		94	
MCH				30		30	
MCHC				33		33	
PLT			Platelet vs 74			224	
OPTPLT							
RDWSD				45		45	
RDWCV				13		26	
NEUTRE				56.7		56.7	
LYMPRE				34.5		34.5	
MONORE				5.4		5.4	
EOSIRE				2.7		2.7	
BASORE				0.5		0.5	
IGRE				0.2		0.2	

**MANUAL**

**FLAGS**

No Flags to report for any RUN

Diff WBC/BASO  
Ret PLT-O  
RBC

**RESULT STATUS**

Pending Sysmex h High  
To be Validated Sysmex H Crit High  
Validated/to Sysmex D

STORE VALIDATE ALL VALIDATE SELECTION VALIDATE CBC

2. The optical PLT will be Run 2. Click on the Rerun tab to see both sets of results. Select the optical PLT results by clicking on Run 2. Results will then appear in Selection Results column.

Result Validation Rerun Manual Differential Morphology Previous

**SELECTION RESULTS**

Group	Test	Result
WBC		5.9
WBCOR		5.9
RBC		4.82
HGB		15.1
HCT		45.4
MCV		94
MCH		30
MCHC		33
PLT		73
RDWSD		45
RDWCV		13
NEUTAB		3.3
LYMPAB		2.0
MONOAB		0.3
EOSIAB		0.2
BASOAB		0.0
NEUTRE		56.7
LYMPRE		34.5
MONORE		5.4
EOSIRE		2.7
BASORE		0.5
IGRE		0.2
IGAB		0.01

Instrument RXE511  
Dilution Factor

**RUN 1**

1
5.9
4.82
15.1
45.4
94
30
33
74
45
13
3.3
2.0
0.3
0.2
0.0
56.7
34.5
5.4
2.7
0.5
0.2
0.01

Graphics

**RUN 2**

2
5.9
4.82
15.1
45.4
94
30
33
73
45
13
3.3
2.0
0.3
0.2
0.0
56.7
34.5
5.4
2.7
0.5
0.2
0.01

Graphics

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## HEMATOLOGY WAM WORKFLOWS

- Return to the Result Validation tab. Run 2 results will now appear in the Result column and "Platelet verified by alternate method" will appear in the Comment column next to the PLT result.

Result Validation		Rerun		Manual Differential		Morphology		Previous	
INSTRUMENT							MANUAL		
Instr: RXE511		Instr: RXE511		P. Date: 03/20/13					
All	EC	Test	Result	Com	Run 1	P Res	P Com	All	Test
<input type="checkbox"/>		WBC	5.9		5.9	5.9		<input type="checkbox"/>	
<input type="checkbox"/>		WBCOR	5.9		5.9	5.9			
<input type="checkbox"/>		RBC	4.82		4.82	4.82			
<input type="checkbox"/>		HGB	15.1		15.1	15.1			
<input type="checkbox"/>		HCT	45.4		45.4	45.4			
<input type="checkbox"/>		MCV	94		94	94			
<input type="checkbox"/>		MCH	30		30	30			
<input type="checkbox"/>		MCHC	33		33	33			
<input type="checkbox"/>		PLT	73	Platelet ve	74	224			
<input type="checkbox"/>		OPTPLT	#v						
<input type="checkbox"/>		RDWSD	45		45	45			
<input type="checkbox"/>		RDWCV	13		13	26			
<input type="checkbox"/>		NEUTRE	56.7		56.7	56.7			
<input type="checkbox"/>		LYMPRE	34.5		34.5	34.5			
<input type="checkbox"/>		MONORE	5.4		5.4	5.4			
<input type="checkbox"/>		EOSIRE	2.7		2.7	2.7			
<input type="checkbox"/>		BASORE	0.5		0.5	0.5			
<input type="checkbox"/>		IGRE	0.2		0.2	0.2			
<input type="checkbox"/>		NEUTAR	0.2		0.2	0.2			

STORE
VALIDATE ALL
VALIDATE SELECTION
VALIDATE CBC

**NOTE:** If a Run is not selected, the following window will appear when attempting to Validate results:

[WAM4] Discipline: Hematology Site ID:R Site Name:ROYAL OAK

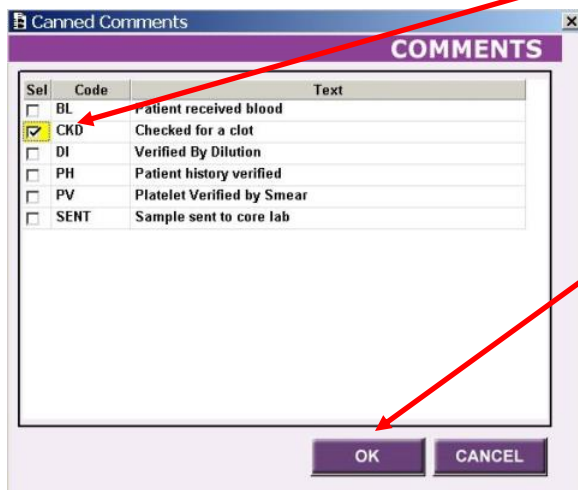
Please select a run first.

OK

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## HEMATOLOGY WAM WORKFLOWS

4. Note that the Op Alert states to check for a clot and review a smear.
  - a. Retrieve specimen and check for a clot. If no clot is found, click on the Comments button. A Comments window opens. Double click on the yellow window. A Canned Comments window appears. Click on CKD (Checked for a clot), then click OK.




- b. "Checked for a clot" will then appear as an internal comment in the yellow area of the Order Comments box. Click SAVE, then QUIT.

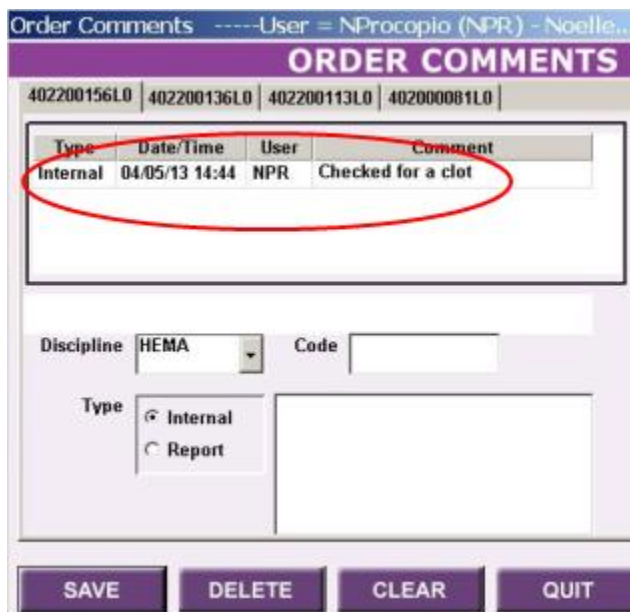


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## HEMATOLOGY WAM WORKFLOWS

- c. A message icon  will then appear in the upper right hand corner of the screen near the Op Alerts.
- d. This icon alerts another tech to the fact that there is a comment regarding the specimen. By clicking on it, the comment as well as the tech, date and time the comment was entered can be viewed.



Type	Date/Time	User	Comment
Internal	04/05/13 14:44	NPR	Checked for a clot

Discipline: HEMA Code:

Type: ☒ Internal ☐ Report

SAVE DELETE CLEAR QUIT

- e. If a clot is found, cancel specimen both in WAM and SoftLAB. Document contact information in LIS.

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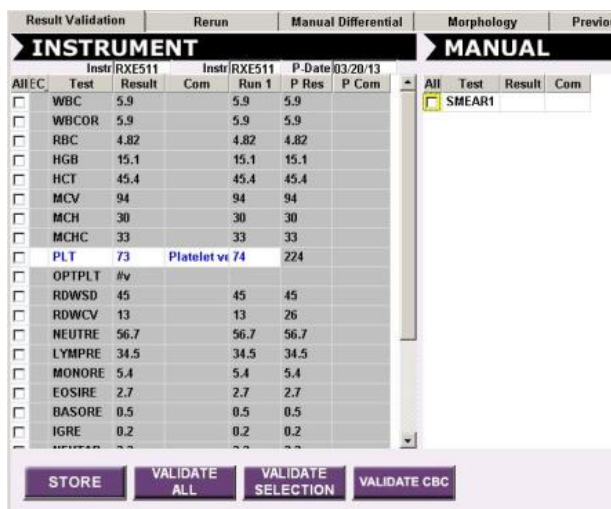


## HEMATOLOGY WAM WORKFLOWS

5. **The HST will not automatically make a smear on PLTs < 75.** Check previous results (Previous Result tab) to determine if the patient had a previous PLT less than 75 that was verified by a smear. Be sure to scroll down to see if previous results had a smear looked at (e.g. RBC morphology, PLTE field resulted).
  - a. If unable to determine that a smear was previously reviewed for a PLT less than 75, click on the Action button and add desired smear (check desired Smear, then OK button).



- b. The selected smear will now appear in the Manual column. Retrieve specimen and place back onto HST so that a smear is made.
6. From the Result Validation screen, select all but the PLT and OPT PLT parameters, then click on Validate Selection. Results are released to SoftLAB except for the PLT which states "in-lab".



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## HEMATOLOGY WAM WORKFLOWS

7. After the smear is made and stained, the morphology tech will access the case in WAM.
  - a. If a CBCWD is ordered, the tech must perform the “Morphology Checks” by clicking on the WBCEST (WBC estimate), INSTFL (instrument flags), RBCM (RBC morphology) and PLTE (PLT estimate) fields and entering applicable findings.
  - b. Regardless of whether a CBCWD or CBCND is ordered, the morphology tech will click on the Result field next to the designated smear (i.e. “Smear 1”) in the Manual column.
  - c. The following window will open:

Sel	Code	Text
<input checked="" type="checkbox"/>	C	Cancel
<input type="checkbox"/>	CLOT	Clotted
<input type="checkbox"/>	HE01	Rechecked and Verified
<input type="checkbox"/>	HE02	Corrected for Lipemia
<input type="checkbox"/>	HE03	Possible Cold Agglutinin
<input type="checkbox"/>	HE06	Results in question; suggest repeat if not compatible with clinical picture
<input type="checkbox"/>	HE10	Repeat differential not performed when WBC <1.0
<input type="checkbox"/>	HE30	Result change from previously reported value; suggest repeat if not comp
<input type="checkbox"/>	PLT0	PLT verified by alternate method
<input type="checkbox"/>	c	Cancelled
<input type="checkbox"/>	ncalc	not calculated
<input type="checkbox"/>	nm	#nm
<input type="checkbox"/>	r	Reviewed
<input checked="" type="checkbox"/>	v	verified

Current Content  
verified

SAVE QUIT

- d. The morphology tech will click on Verified, then click SAVE.

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## HEMATOLOGY WAM WORKFLOWS

- e. After saving the verified comment, “#v” appears in smear result column, indicating that the smear was verified:

Result Validation			Rerun		Manual Differential		Morphology		Pre	
INSTRUMENT							MANUAL			
Instr:RXE511			Instr:RXE511		P-Date:03/20/13					
AI/EC	Test	Result	Com	Run 1	P Res	P Com	All	Test	Result	Com
<input type="checkbox"/>	WBC	5.9		5.9	5.9		<input type="checkbox"/>	WBCEST	Irmed	
<input type="checkbox"/>	WBCOR	5.9		5.9	5.9		<input type="checkbox"/>	INSTFL	Review	
<input type="checkbox"/>	RBC	4.82		4.82	4.82		<input type="checkbox"/>	RBCM	#DI	
<input type="checkbox"/>	HGB	15.1		15.1	15.1		<input type="checkbox"/>	PLTE	#D	
<input type="checkbox"/>	HCT	45.4		45.4	45.4		<input type="checkbox"/>	HYPO	#++	
<input type="checkbox"/>	MCV	94		94	94		<input type="checkbox"/>	HJBO	#P	
<input type="checkbox"/>	MCH	30		30	30		<input type="checkbox"/>	SMEAR1	#v	
<input type="checkbox"/>	MCHC	33		33	33					
<input type="checkbox"/>	PLT	73	Platelet vt 74		224					
<input type="checkbox"/>	OPTPLT	#v								
<input type="checkbox"/>	RDWSD	45		45	45					
<input type="checkbox"/>	RDWCV	13		13	26					
<input type="checkbox"/>	NEUTRE	56.7		56.7	56.7					
<input type="checkbox"/>	LYMPRE	34.5		34.5	34.5					
<input type="checkbox"/>	MONORE	5.4		5.4	5.4					
<input type="checkbox"/>	EOSIRE	2.7		2.7	2.7					
<input type="checkbox"/>	BASORE	0.5		0.5	0.5					
<input type="checkbox"/>	IGRE	0.2		0.2	0.2					

8. The morphology tech then clicks on Validate All. This will finalize all results in WAM (all fields, including morphology responses will be black on gray) and SoftLAB.

Result Validation			Rerun		Manual Differential		Morphology		Previous		
INSTRUMENT							MANUAL				
Instr:RXE511			Instr:RXE511		P-Date:03/20/13						
AI/EC	Test	Result	Com	Run 1	P Res	P Com	All	Test	Result	Com	
<input type="checkbox"/>	WBC	5.9		5.9	5.9		<input type="checkbox"/>	WBCEST	Confin		
<input type="checkbox"/>	WBCOR	5.9		5.9	5.9		<input type="checkbox"/>	INSTFL	Review		
<input type="checkbox"/>	RBC	4.82		4.82	4.82		<input type="checkbox"/>	RBCM	#DI#S		
<input type="checkbox"/>	HGB	15.1		15.1	15.1		<input type="checkbox"/>	PLTE	#D		
<input type="checkbox"/>	HCT	45.4		45.4	45.4		<input type="checkbox"/>	HYPO	#++		
<input type="checkbox"/>	MCV	94		94	94		<input type="checkbox"/>	HJBO	#P		
<input type="checkbox"/>	MCH	30		30	30		<input type="checkbox"/>	SMEAR1	#v		
<input type="checkbox"/>	MCHC	33		33	33						
<input type="checkbox"/>	PLT	73	Platelet vt	74	224						
<input type="checkbox"/>	OPTPLT	#v									
<input type="checkbox"/>	RDWSD	45		45	45						
<input type="checkbox"/>	RDWCV	13		13	26						
<input type="checkbox"/>	NEUTRE	56.7		56.7	56.7						
<input type="checkbox"/>	LYMPRE	34.5		34.5	34.5						
<input type="checkbox"/>	MONORE	5.4		5.4	5.4						
<input type="checkbox"/>	EOSIRE	2.7		2.7	2.7						
<input type="checkbox"/>	BASORE	0.5		0.5	0.5						
<input type="checkbox"/>	IGRE	0.2		0.2	0.2						

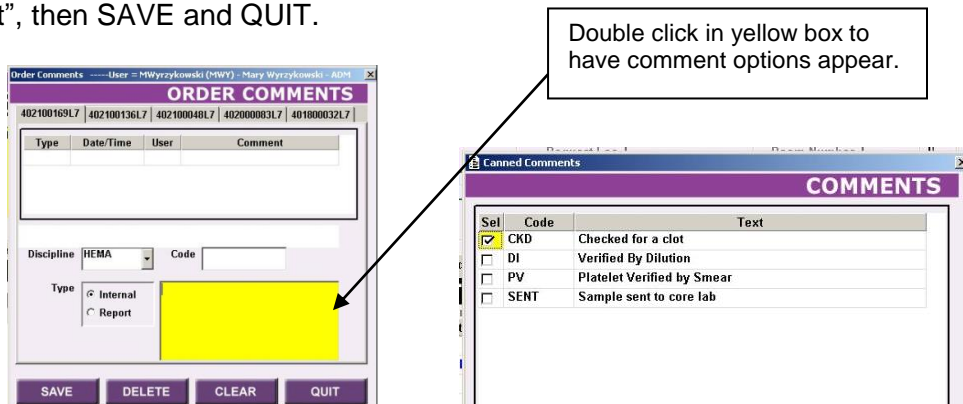
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## HEMATOLOGY WAM WORKFLOWS

### CLUMPED PLATELETS OR PLATELET SATELLITOSIS

#### HST tech –

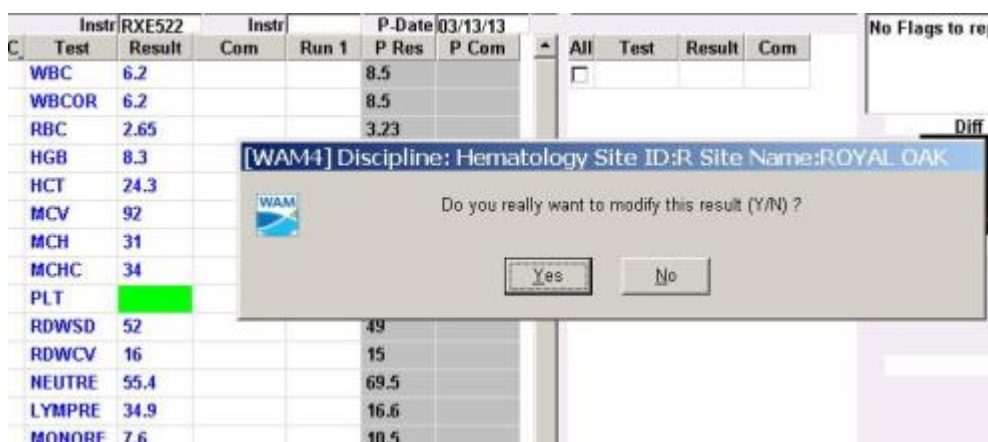
If the XE5000 gives any clumped platelet flags or OP Alert for Platelet Satellitosis, check sample for clots. Enter internal comment by choosing COMMENT tab, select “Checked for clot”, then SAVE and QUIT.



Select appropriate CBC parameters to be validated, excluding the PLT, and Validate Selection. QUIT.

#### Morph tech –

1. Review slide. If platelet clumps or platelet satellitosis is present and your platelet estimate differs from the instrument count, go into Morphology tab, double click in PLT estimate result field and choose appropriate platelet estimate (increased, decreased, adequate). Result all of required morphology fields appropriately.
2. In Result Validation tab, remove platelet result by clicking on platelet result field, then clicking Delete. A window will appear, asking if you really want to modify this result. Click on Yes.



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## HEMATOLOGY WAM WORKFLOWS

3. Double click on the Platelet Result field. A window will open. Select the appropriate clumped platelet/ platelet satellitosis comment that correlates with the platelet estimate.

COMMENTS

Sel	Code	Text
<input checked="" type="checkbox"/>	PLT3	Platelets clumped in EDTA, appear adequate on smear
<input type="checkbox"/>	PLT4	Platelets clumped in EDTA, appear decreased on smear
<input type="checkbox"/>	PLT5	Platelets clumped in EDTA, appear increased on smear
<input type="checkbox"/>	PLT6	Platelet satellitosis present, appear adequate on smear
<input type="checkbox"/>	PLT7	Platelet satellitosis present, appear decreased on smear
<input type="checkbox"/>	PLT8	Platelet satellitosis present, appear increased on smear

**Current Content**

#PLT3

SAVE

QUIT

4. STORE and Validate All.

---

### WBC <1.0

1. **WBC < 1.0 with #nm for differential parameters and no previous differential:**
  - a. A manual differential will have to be performed in the manual differential tab using the 2 slides made on the SP1000i.
  - b. After performing the manual differential, complete the "Morphology Checks" in the Morphology tab. If differential was performed on less than 100 cells add the comment (HD13) in the DIFFC result field in the morphology tab.

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## HEMATOLOGY WAM WORKFLOWS

Test	Name	Result
OVAL	OVALOCYTES	
SPHE	SPHEROCYTES	
TARG	TARGET CELLS	
STOM	STOMATOCYTES	
BURC	ECHINOCYTES	
TEARD	TEAR DROP CELLS	
ACAN	ACANTHOCYTES	
SCHI	SCHISTOCYTES	
HJBO	HOWELL JOLLY	
PASI	PAPPENHEIMER	
SICK	SICKLE CELLS	
BACT	INTRACELLULAR	
CRYHB	HGB CRYSTALS	
AGGL	AGGLUTINATED	
ROUL	ROULEAUX	
PLTS	PLT SATELLITES	
DIFFC	DIFF COMMENT	

Sel	Code	Text
<input checked="" type="checkbox"/>	HD10	Positive Mono test
<input type="checkbox"/>	HD13	Diff performed on less than 100 cells
<input type="checkbox"/>	HD7	None seen
<input type="checkbox"/>	HE01	Results checked and verified
<input type="checkbox"/>	HE05	WBC/PLT interference. Result to follow
<input type="checkbox"/>	HE06	Unknown interference. Result to follow
<input type="checkbox"/>	HE07	Verified
<input type="checkbox"/>	HE08	Results in question. Suggest repeat
<input type="checkbox"/>	HE10	Repeat diff not performed, WBC <1.0
<input type="checkbox"/>	HE14	Occasional metamyelocytes seen on scan
<input type="checkbox"/>	HE15	Occasional myelocytes seen on scan
<input type="checkbox"/>	HE16	Occasional metamyelocyte/myelocytes seen on scan
<input type="checkbox"/>	HE18	Occasional nRBC seen on scan
<input type="checkbox"/>	HE20	Echinocytes may be seen as artifact
<input type="checkbox"/>	HE24	Peripheral blood smear review identified reactive

c. Return to Result Validation tab, click on STORE, then Validate All.

### 2. WBC<1.0 with #nm for diff and previous differential was performed:

- When differential parameters from the analyzer vote out, #nm is what crosses over into the WAM. #nm converts to "Unable to perform" in SoftLAB. Replace all numerical percentage and absolute values with "#nm". Do this by clicking on the numerical value, deleting, and double-clicking on the empty result field. Choose the #nm option and SAVE. Repeat until all numerical values are replaced with #nm.

Test	Result	Com
MCV	94	
MCH	30	
MCHC	33	
PLT	224	
RDWSD	45	
RDWCV	13	
NEUTRE	#nm	
LYMPRE	#nm	
MONORE	#nm	
EOSIRE	#nm	
BASORE	#nm	
IGRE	#nm	
NEUTAB	#nm	
LYMPAB	#nm	
MONOAB	#nm	
EOSIAB	#nm	
BASOAB	#nm	
IGAB	#nm	

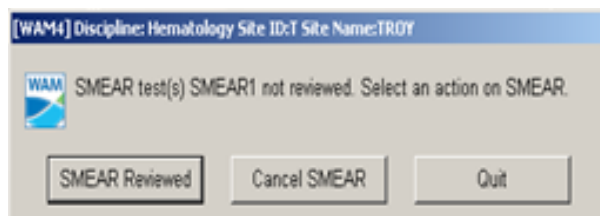
b. STORE, then Validate All.

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## HEMATOLOGY WAM WORKFLOWS

- c. Click 'Cancel Smear' in the Smear pop-up box. This will remove the Smear 1 order in WAM.



Result Validation			Rerun		Manual Differential		Morphology		
INSTRUMENT							MANUAL		
Instr:TXE511			Instr:TXE511		P-Date:03/25/13				
All EC	Test	Result	Com	Run 1	P Res	P Com	All	Test	Result
<input type="checkbox"/>	MCV	94			94		<input type="checkbox"/>	SMEAR1	#c
<input type="checkbox"/>	MCH	30			30		<input type="checkbox"/>	SMEAR2	#c
<input type="checkbox"/>	MCHC	33			33				
<input type="checkbox"/>	PLT	224			224				
<input type="checkbox"/>	RDWSD	45			45				
<input type="checkbox"/>	RDWCV	13			13				
<input type="checkbox"/>	NEUTRE	#nm		#nm	Cancel				
<input type="checkbox"/>	LYMPRE	#nm		#nm	Cancel				
<input type="checkbox"/>	MONORE	#nm		#nm	Cancel				
<input type="checkbox"/>	EOSIRE	#nm		#nm	Cancel				
<input type="checkbox"/>	BASORE	#nm		#nm	Cancel				
<input type="checkbox"/>	IGRE	#nm		#nm	Cancel				
<input type="checkbox"/>	NEUTAB	#nm		#nm	#nm				
<input type="checkbox"/>	LYMPAB	#nm		#nm	#nm				
<input type="checkbox"/>	MONOAB	#nm		#nm	Cancel				
<input type="checkbox"/>	EOSIAB	#nm		#nm	Cancel				
<input type="checkbox"/>	BASOAB	#nm		#nm	Cancel				
<input type="checkbox"/>	IGAB	#nm		#nm	Cancel				

STORE

VALIDATE ALL

VALIDATE SELECTION

VALIDATE CBC

- d. The instant report in Soft will look like this:

Test Name	Result
<b>Complete Blood Count w Diff</b>	
WBC	0.4
Repeat Diff not performed when WBC <1.0	
RBC	4.82
Hemoglobin	15.1
Hematocrit	45.4
MCV	94
MCH	30
MCHC	33
RDW SD	45
RDW CV	13
Platelet	224
Neutrophils	see below
Unable to perform.	
Lymphocytes	see below
Unable to perform.	

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## HEMATOLOGY WAM WORKFLOWS

### SECOND LEVEL REVIEW FOR BLAST FLAG

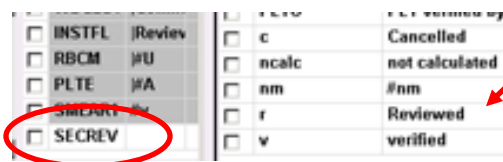
#### HST tech –

Validate CBC only after addressing flags, Op alerts, etc.

#### Morph tech –

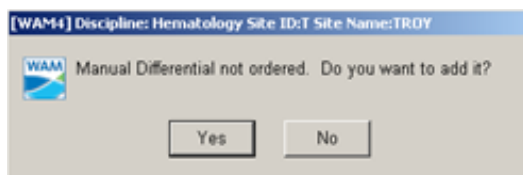
If only a scan is required:

- Morph tech:** Perform scan and under Morphology tab, result required morphology fields (WBC estimate, Instrument flag check, RBC morphology and PLT estimate). If differential can be released without further review by pathologist and only secondary blast review is needed, STORE and Validate All. This will send out the differential and leave only the SECREV result field pending.
- Secondary Review Tech:** Under Result Validation tab, enter order number and Search. After reviewing smear, result SECREV. To do so, double click on result field for SECREV to call up keypad. Choose “Reviewed” option, SAVE and QUIT. STORE, and Validate All.

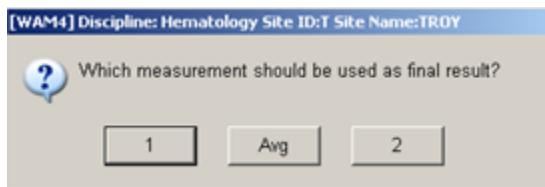


If a differential is required:

- Morph tech:** Perform manual differential under Differential tab. When you click on Morphology tab, the following box will pop-up. Answer ‘Yes’.



- Result required morphology under Morphology tab (WBC estimate, Instrument flag check, RBC morphology and PLT estimate).
- If a second differential is to be performed, second tech will perform differential, go to Result Validation tab and pop-up will appear.
- Choose which diff you would like to accept. Do NOT choose to average the two differentials.



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## HEMATOLOGY WAM WORKFLOWS

- e. STORE. Validate All if diff is to be reported. Otherwise, click ACCEPT or QUIT.

Result Validation				Rerun		Manual Differential		Morphology			
INSTRUMENT						MANUAL					
Instr		TXE511		Instr		P.Date		03/22/13			
ALL	EC	Test	Result	Com	Run 1	P Res	P Com	ALL	Test	Result	Co
<input type="checkbox"/>		WBC	5.9			11.0		<input type="checkbox"/>	NEUT	33.00	
<input type="checkbox"/>		WBCOR	5.9			11.0		<input type="checkbox"/>	LYMP	30.00	
<input type="checkbox"/>		RBC	4.82			4.82		<input type="checkbox"/>	MONO	0	
<input type="checkbox"/>		HGB	15.1			15.1		<input type="checkbox"/>	EOSI	0	
<input type="checkbox"/>		HCT	45.4			45.4		<input type="checkbox"/>	BASO	14.00	
<input type="checkbox"/>		MCV	94			94		<input type="checkbox"/>	META	13.00	
<input type="checkbox"/>		MCH	30			30		<input type="checkbox"/>	MYELO	10.00	
<input type="checkbox"/>		MCHC	33			33		<input type="checkbox"/>	PROMY	0	
<input type="checkbox"/>		PLT	224			224		<input type="checkbox"/>	BLAST	0	
<input type="checkbox"/>		RDWSD	45			45		<input type="checkbox"/>	OTHER	0	
<input type="checkbox"/>		RDWCV	13			13		<input type="checkbox"/>	PLAS	0	
<input type="checkbox"/>		NEUTRE	56.7			56.7		<input type="checkbox"/>	HAIRY	0	
<input type="checkbox"/>		LYMPRE	34.5			34.5		<input type="checkbox"/>	RLYMP	0	
<input type="checkbox"/>		MONORE	5.4			5.4		<input type="checkbox"/>	NEUTA	1.95	
<input type="checkbox"/>		EOSIRE	2.7			2.7		<input type="checkbox"/>	LYMPA	1.77	
<input type="checkbox"/>		BASORE	0.5			0.5		<input type="checkbox"/>	BASOA	0.83	
<input type="checkbox"/>		IGRE	0.2			0.2		<input type="checkbox"/>	METAA	0.77	
<input type="checkbox"/>		NEUTAB	3.3			1.0		<input type="checkbox"/>	MYELOA	0.59	

Manual diff parameter and morphology fields are shown in blue prior to validation.

- f. **Second Level Review Tech:** Review smear and result SECREV under the Result Validation tab. To do so, double click on result field for SECREV to call up canned comments. Choose "Reviewed" option, SAVE and QUIT. STORE, and Validate All.

WAM Coded Texts- Screen -----User = RSalter (RSA) - Rebecca Bacarella - ADM

### COMMENTS

Sel	Code	Text
<input type="checkbox"/>	C	Cancel
<input type="checkbox"/>	CLOT	Clotted
<input type="checkbox"/>	HE01	Rechecked and Verified
<input type="checkbox"/>	HE02	Corrected for Lipemia
<input type="checkbox"/>	HE03	Possible Cold Agglutinin
<input type="checkbox"/>	HE08	Results in question; suggest repeat if not compatible with clinical pi
<input type="checkbox"/>	HE10	Repeat differential not performed when WBC <1.0
<input type="checkbox"/>	HE38	Result change from previously reported value; suggest repeat if not
<input type="checkbox"/>	PLTO	PLT verified by alternate method
<input type="checkbox"/>	TS500	Sorted by TS500
<input type="checkbox"/>	c	Cancelled
<input type="checkbox"/>	ncalc	not calculated
<input type="checkbox"/>	nm	#nm
<input checked="" type="checkbox"/>	r	Reviewed
<input type="checkbox"/>	ts500	Sorted by TS500
<input type="checkbox"/>	v	verified

Current Content

Reviewed

SAVE QUIT

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## HEMATOLOGY WAM WORKFLOWS

- g. After Second Level Review comment is added, case goes to completion (all black numerals on gray background):

Result Validation		Rerun		Manual Differential		Morphology		Previous Re	
<b>INSTRUMENT</b>						<b>MANUAL</b>			
Instr RXE522		Instr		P-Date 03/05/13					
AltEC	Test	Result	Com	Run 1	P Res	P Com	Alt	Test	Result
<input type="checkbox"/>	WBC	8.5			6.4		<input type="checkbox"/>	WBCEST	Confin
<input type="checkbox"/>	WBCOR	8.5			6.4		<input type="checkbox"/>	INSTFL	Review
<input type="checkbox"/>	RBC	3.23			3.36		<input type="checkbox"/>	RBCM	#SB
<input type="checkbox"/>	HGB	9.5			11.0		<input type="checkbox"/>	PLTE	#A
<input type="checkbox"/>	HCT	29.0			32.7		<input type="checkbox"/>	HYPO	#++
<input type="checkbox"/>	MCV	90			97		<input type="checkbox"/>	HJBO	#P
<input type="checkbox"/>	MCH	29			33		<input type="checkbox"/>	PLTC	#PLT3
<input type="checkbox"/>	MCHC	33			34		<input type="checkbox"/>	DIFFC	#HE25
<input type="checkbox"/>	PLT	314			144		<input type="checkbox"/>	SMEAR1	#v
<input type="checkbox"/>	RDWSD	49			50		<input type="checkbox"/>	SECREV	Review
<input type="checkbox"/>	RDWCV	15			14				
<input type="checkbox"/>	* NEUTRE	69.5			70.6				
<input type="checkbox"/>	* LYMPRE	16.6			14.4				
<input type="checkbox"/>	* MONORE	10.5			11.6				
<input type="checkbox"/>	EOSIRE	1.9			2.7				
<input type="checkbox"/>	* BASORE	0.2			0.2				
<input type="checkbox"/>	IGRE	1.3			0.5				
<input type="checkbox"/>	* NEUTAB	5.9			4.5				

STORE
VALIDATE ALL
VALIDATE SELECTION
VALIDATE CBC

- h. Since the secondary review is internal, it will not appear in Soft:

Test Name	Result
<b>Complete Blood Count w Diff</b>	
WBC	5.9
RBC	4.82
Hemoglobin	15.1
Hematocrit	45.4
MCV	94
MCH	30
MCHC	33
RDW SD	45
RDW CV	13
Platelet	224
Neutrophils	1.9
Lymphocytes	1.8
Basophils	0.8
Metamyelocyte	0.77
Myelocyte	0.59
Platelet Estimate	Adequate
RBC Morphology	Unremarkable

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## HEMATOLOGY WAM WORKFLOWS

- i. **Note** that if the Second Level Review is not answered, it will remain pending in WAM and will create WAM issues. The following shows a Second Level Review that is pending:

The screenshot displays the WAM interface with tabs for Result Validation, Rerun, Manual Differential, Morphology, and Previous Result. The 'Manual Differential' tab is active, showing a list of tests and their results. A red arrow points to the 'P Com' column for the 'NRBCAB' test, which is empty, indicating it is pending review.

Test	Result	Com	Run 1	P Res	P Com
MCHC	31		32	33	
PLT	217		217	262	
RDWSD	#nm		#nm	51	
RDWCV	#nm		#nm	15	
NEUTRE	#nm		#nm		
LYMPRE	#nm		#nm		
MONORE	#nm		#nm		
EOSIRE	#nm		#nm		
BASORE	1.9		0.8		
IGRE	#nm		#nm		
NRBCRE	187.5				
NEUTAB	#nm		#nm		
LYMPAB	#nm		#nm		
MONOAB	#nm		#nm		
EOSIAB	#nm		#nm		
BASOAB	0.2		0.2		
IGAB	#nm		#nm		
NRBCAB	15.80				

Buttons at the bottom: STORE, VALIDATE ALL, VALIDATE SELECTION, VALIDATE CBC, DETAILS, ACTIONS, COMMENTS, REFRESH.

WAM pending logs should be called up twice per shift to address any missing parameters (i.e. SECREV).

### NRBC ABNORMAL SCATTERGRAM

#### HST tech –

If after a NRBC? Flag sample is reflexed and the NRBC Abn Scattergram is present: Place checkmarks next to all CBC parameters except the WBC/WBCOR/WBCUN. Do not check the diff parameters. Validate Selection. These will release the CBC parameters that were checked, holding back the diff and WBC result fields.

#### Morph tech –

1. Review the slide and determine if a manual differential should be performed. If the number of NRBC's does not match the automated NRBC count, perform a manual differential under the Manual Differential tab.
2. Perform the WBC estimate, Instrument flag check, RBC morphology and PLT estimate.

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## HEMATOLOGY WAM WORKFLOWS

- Return to the Result Validation tab and **STORE**. Notice that the corrected WBC count recalculates if a manual diff was performed. Validate All.

**NOTE: If the HST had released the WBC result fields in WAM, the morph tech would have to recalculate the WBC manually and make the correction in SoftLAB.**

---

### RET ABN SCATTERGRAM – Dilution of 1:2, 1:3

Check to see if the RET value has exceeded linearity. If so, a 1:2 or 1:3 dilution is necessary per SOP (refer to the procedure manual for proper handling of sample with this error).

In WAM:

- In the Result Validation tab, click on the ACTION box and add a rerun.
- After you have prepared your dilution, run the diluted sample in the manual mode (NOT capillary mode!). This run will cross over into WAM and can be seen in the RERUN tab.
- There is an open blank box under the diluted samples Rerun results. This row of boxes is where your dilution will be entered. If you have a 1:2 dilution, enter “2” in this box, if you have a 1:3 dilution, enter a “3” in this box, etc.
- Return to Result Validation tab and STORE.

---

### MICROORGANISMS FOUND ON PERIPHERAL SMEAR

**Morph tech –**

- In Morphology tab, after reviewing the slide and resulting all of the required morphology fields (WBC estimate, flag check, RBC morphology and platelet estimate) double click on Intracellular Bacteria result field and result “Present” (send directly to micro for confirmation).

SPHE	SPHEROCYTES	
TARG	TARGET CELLS	
STOM	STOMATOCYTES	
BURC	ECHINOCYTES	
TEARD	TEAR DROP CELI	
ACAN	ACANTHOCYTES	
SCHI	SCHISTOCYTES	
HJBO	HOWELL-JOLLY I	
PASI	PAPPENHEIMER	
SICK	SICKLE CELLS	
BACT	INTRACELLULAR	
CRYHB	HGB CRYSTALS	

Sel	Code	Tex
<input type="checkbox"/>	BACT	Present (send directly to micro for coi

- Validate All and take slides to microbiology.
- In SoftLAB, the Take2 test field will be generated that prompts you to take the slides to microbiology for an appropriate stain.

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## HEMATOLOGY WAM WORKFLOWS

Ordered (8)				
Insert Cancel Cancel order Formulary Keypad				
Type	ID	Priority	Cycled	Name
G	CBCWD			Complete Blood Count w/ Diff
I	ATAB2			Absolute Diff Calculation
I	WBCD2			WBC DIFF CHECK
I	REFLX			WAM reflex
I	PLTE			Platelet Estimate Dummy
I	RBCM			RBC Morph Dummy
I	TAKE2			Take Specimen to
I	HGRM			Stain, Gram from Hematology Specimen

- Go into SoftLAB, Order Entry and result the Take2 result field with option "Yes". Verify. The prompt that the order is not collected/received will pop-up. Collect/Receive this under specimen tab and SAVE.

- From the Source field, click on the dropdown box next to HAEM. A pop-up box appears; click OK then SAVE.
- This is the Hematology generated gram stain that micro will result and that will show up on Micro's pending list.
- A barcode label prompt appears. Print (HGRM) label; track specimen to Micro; deliver label and specimen to Micro.

BEAUMONTLABTEST, HEMORO W  
 R M 521308104-XS RMICR  
 O ROCG:: 9121978 04/13/15 14:20  
 U  
 T

HGRM

Sec:HAEM

Sterile Container

Band# \_\_\_\_\_ Col: \_\_\_\_\_

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## HEMATOLOGY WAM WORKFLOWS

### ADDING A PATH REVIEW IN WAM

In this sample we would first investigate the failed delta, and document the delta with “HE 38.”

[WAM4] Discipline: Hematology Site ID:G Site Name:GROSSE POINTE - [Result Validation Screen] -----User = CKopinski (CKO) - ...

**PATIENT DEMOGRAPHICS**

Sample ID: 402800089L8  
MRN: 4003571  
Patient Name: GPSYSMEX.WAM  
Date of Birth: 03/17/1932 081 M  
Sample Loc: 000001.01  
Collection D/T: 03/28/2013 12:00  
Receipt D/T: 03/28/2013 12:12  
Request Loc: CHEN, LEILEI  
Req. Name: CHEN, LEILEI  
Req. Phone: ALL TYPES  
Requestor Code: G2SE2  
Care Unit: G2SE2  
Room Number: G2SE2  
Diagn. Code 1: G2SE2  
Diagn. Code 2: G2SE2

**OP ALERTS**

WBC Delta failure: Decreased check for clot, chemo/immunosupp;  
Increased check surg, proc/infec.

**RESULT VALIDATION**

**SID** 402800089L8

**INSTRUMENT**

AI/EC	Test	Result	Com	Run 1	P-Date 03/27/13	P-Res	P-Com
<input type="checkbox"/>	WBC	5.9			5.9		
<input type="checkbox"/>	WBCOR	4.82			4.82		
<input type="checkbox"/>	RBC	15.1			15.0		
<input type="checkbox"/>	HGB	45.4			45.4		
<input type="checkbox"/>	HCT	125			125		
<input type="checkbox"/>	MCV	30			30		
<input type="checkbox"/>	MCH	33			33		
<input type="checkbox"/>	MCHC	224			224		Platelet v
<input type="checkbox"/>	PLT	45			45		
<input type="checkbox"/>	RDWSD	13			13		
<input type="checkbox"/>	RDWCV	56.7			56.7		
<input type="checkbox"/>	NEUTRE	34.5			34.5		
<input type="checkbox"/>	LYMPRE	5.4			5.4		
<input type="checkbox"/>	MONORE	2.7			2.7		
<input type="checkbox"/>	EOSIRE	0.5			0.5		
<input type="checkbox"/>	BASORE	0.2			0.2		
<input type="checkbox"/>	IGRE	0.1			0.1		
<input type="checkbox"/>	NRBCRE	0.1			0.1		

**MANUAL**

**FLAGS**

Single run:  
Lymphocytosis;

Diff Ret PLT.F

NRBC

RBC PLT

**RESULT STATUS**

Pending Sysmex H High L Low  
To be Validated Sysmex H Crit High L Crit Low  
Validated/to Sysmex D Crit High L Crit Low

**STORE VALIDATE ALL VALIDATE SELECTION VALIDATE CBC**

Acc No. 1 of 1

**DETAILS ACTIONS COMMENTS REFRESH SWITCH TO QUERY SCREEN ACCEPT QUIT**

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## HEMATOLOGY WAM WORKFLOWS

### HST Tech –

Select the parameters to release: HGB, WBC, RBC, PLT and “Validate the Selection”.

[WAM4] Discipline: Hematology Site ID:G Site Name:GROSSE POINTE - [Result Validation Screen] -----User = CKopinski (CKO) - ...

**PATIENT DEMOGRAPHICS**

Sample ID: 402800089L8  
 MRN: 4003571  
 Patient Name: GPSYSMEX,WAM  
 Date of Birth: 03/17/1932 081 M  
 Sample Loc: 000001-01

Collection D/T: 03/28/2013 12:00  
 Receipt D/T: 03/28/2013 12:12  
 Request Loc: CHEN, LEILEI  
 Reg. Name: CHEN, LEILEI  
 Reg. Phone:   
 Sel. Criteria: ALL TYPES

**OP ALERTS**

WBC Delta failure: Decreased check for clot, chemo/immunosupp;  
 Increased check surg, proc/infect.

**SID** 402800089L8

**INSTRUMENT**

All	Test	Result	Com	Run 1	P Res	P Com
<input checked="" type="checkbox"/>	WBC	5.9			5.9	
<input checked="" type="checkbox"/>	WBCOR	5.9			5.9	
<input checked="" type="checkbox"/>	RBC	4.82			4.82	
<input checked="" type="checkbox"/>	GB	15.1			15.0	
<input checked="" type="checkbox"/>	CT	45.4			45.4	
<input checked="" type="checkbox"/>	CV	125			125	
<input checked="" type="checkbox"/>	CH	30			30	
<input checked="" type="checkbox"/>	CHC	33			33	
<input checked="" type="checkbox"/>	PLT	224			224	Platelet v
<input checked="" type="checkbox"/>	RDWSD	45			45	
<input checked="" type="checkbox"/>	RDWCV	13			13	
<input checked="" type="checkbox"/>	NEUTRE	56.7			56.7	
<input checked="" type="checkbox"/>	LYMPRE	34.5			34.5	
<input checked="" type="checkbox"/>	MONORE	5.4			5.4	
<input checked="" type="checkbox"/>	EOSIRE	2.7			2.7	
<input checked="" type="checkbox"/>	BASORE	0.5			0.5	
<input checked="" type="checkbox"/>	IGRE	0.2			0.2	
<input checked="" type="checkbox"/>	NRBCRE	0.1			0.1	

**MANUAL**

**FLAGS**

Single run:  
 Lymphocytosis:  
 Diff Ret PLT-F  
 NRBC  
 RBC PLT

**RESULT STATUS**

Pending Sysmex H High L Low  
 To be Validated Sysmex H Crit High Crit Low  
 Validated/to Sysmex D

STORE VALIDATE ALL VALIDATE SELECTION VALIDATE CBC

Acc No. 1 of 1

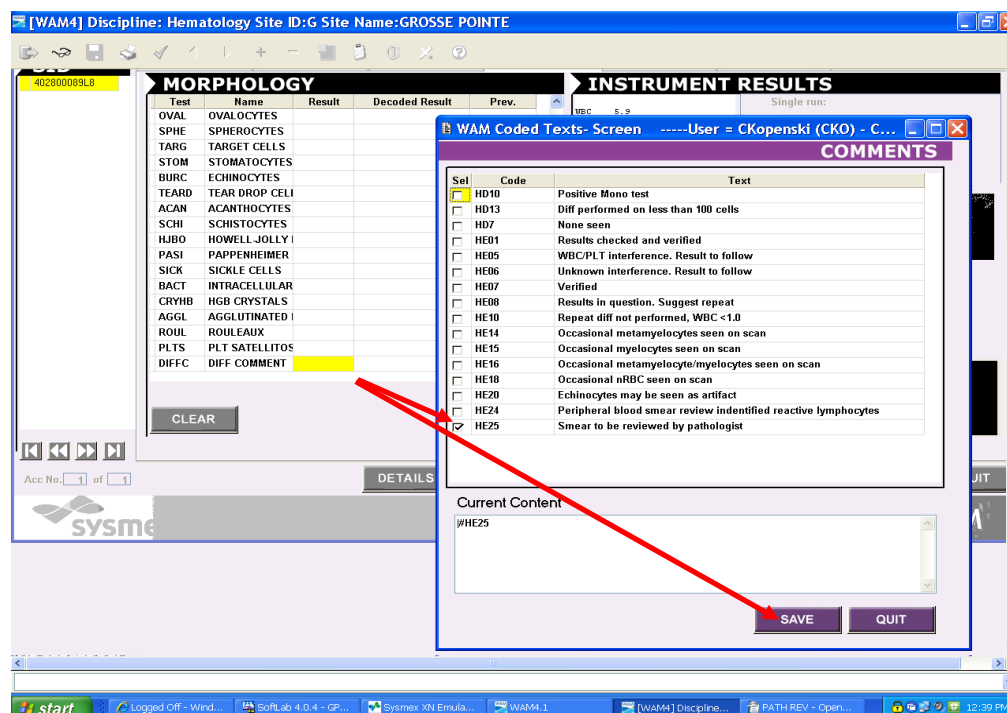
DETAILS ACTIONS COMMENTS REFRESH SWITCH TO QUERY SCREEN ACCEPT QUIT

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## HEMATOLOGY WAM WORKFLOWS

### Morph Tech –

1. Review the automated differential and decided whether to perform manual differential.
2. Determine if the case needs to be sent for a Path Review.
3. Double click on Diff Comment and select “HE 25” (Smear to be reviewed by pathologist) then click SAVE.



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## HEMATOLOGY WAM WORKFLOWS

- Go to SoftLAB and send for Path Review. "HE25" can be seen in SoftLAB Order Entry:

Results - [Enter, Worksheet for GHALL, Status: All, 1 orders - Edit Mode]

File Edit View Orders Specimens Results Diffpad Worksheet Tools Window Help

Patient Info  
Name (last, first, middle) GPSYSMEX, WAM H  
MRN: 4003571 Sex: M Age: 81 Ward: G2SE2 Room: More...

Order Info  
Order: 402800089 Prior: R Aux#: Collected: 03/28/2013 12:00

T ID	T Ind	Result	FI	Flags	M	Prev Res	Prev Date	C	Status	Tech	DateV	TimeV	
82	CBWD	VACUO							LC	VR	03/28/2013	12:12	
83	CBWD	PLTES	Adequate			Adequate	03/25/2013	e	LC	V	03/28/2013	12:44	
84	CBWD	PLTS							LC	VR	03/28/2013	12:12	
85	CBWD	RMORP	See Below			Unremarkabl	03/25/2013	c	LC	V	03/28/2013	12:44	
86	CBWD	ACANT							LC	VR	03/28/2013	12:12	
87	CBWD	BACT							e	LC	VR	03/28/2013	12:12
88	CBWD	BSTIP							LC	VR	03/28/2013	12:12	
89	CBWD	ECHIN							LC	VR	03/28/2013	12:12	
90	CBWD	CRYHB							LC	VR	03/28/2013	12:12	
91	CBWD	HOWJB							LC	VR	03/28/2013	12:12	
92	CBWD	HYPD							LC	VR	03/28/2013	12:12	
93	CBWD	PAPEN							LC	VR	03/28/2013	12:12	
94	CBWD	POLY							LC	VR	03/28/2013	12:12	
95	CBWD	OVAL							LC	VR	03/28/2013	12:12	
96									VR		03/28/2013	12:12	
97									VR		03/28/2013	12:12	
98									VR		03/28/2013	12:12	
99									VR		03/28/2013	12:12	
00									VR		03/28/2013	12:12	
01									VR		03/28/2013	12:12	
02									VR		03/28/2013	12:12	
03									VR		03/28/2013	12:12	
04									VR		03/28/2013	12:12	
05									VR		03/28/2013	12:12	
06									V		03/28/2013	12:12	
07									VR		03/28/2013	12:12	
08	CBWD	MYLO				0.0	03/25/2013	LC	VR		03/28/2013	12:12	
09	CBWD	PRMY				0.0	03/25/2013	LC	VR		03/28/2013	12:12	
10	CBWD	BLST				0.0	03/25/2013	LC	VR		03/28/2013	12:12	
11	CBWD	TORRE							LC	VR	03/28/2013	12:12	
12	CBWD	PTHRV							LC	VR	03/28/2013	12:12	
13	CBWD	MD2							LC	VR	03/28/2013	12:12	
14	CBWD	RRVCB							LC	VR	03/28/2013	12:12	
15	CBWD	ATABS							c	LC	VR	03/28/2013	12:12
16	CBWD	WBCKD							c	LC	VR	03/28/2013	12:12
17	ATAB2	ATAB2				5.8	03/25/2013	c	LC	VR	03/28/2013	12:44	
18	REFLX	REFLX	MR_PL			MR_PL	03/25/2013	LC	PVX	6000	03/28/2013	12:44	
19	PLTE	PLTE	Adequate			Adequate	03/25/2013	LC	D PV	OKO	03/28/2013	12:44	
20	RBCM	RBCM	See Below			Unremarkabl	03/25/2013	LC	D PV	OKO	03/28/2013	12:44	

Search by: Order =

Ready

User: CKOPE Env: GPTEST Term: A0349 NUM EDIT: 03/28/2013 13:43

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## HEMATOLOGY WAM WORKFLOWS

### Checking for a Previous Path Review in WAM:

If you would like to know if a patient was previously sent for a PATH REV:

1. Select the "Previous Result" tab and scroll down to the lower part of the Morphology tab. The "HE 25" code will display in the Diff Comment field, denoting the smear was previously sent for pathologist review:

Using HE25 will allow you to see when a case was previously sent for a path review.

**WAM4 Discipline: Hematology Site ID:G Site Name:GROSSE POINTE - [Result Validation Screen] -----User = CKopinski (CKO) - ...**

**PATIENT DEMOGRAPHICS**

Sample ID: 402800089L8  
MRN: 4003571  
Patient Name: GPSYSMEX,WAM  
Date of Birth: 03/17/1932 081 M  
Sample Loc.: 000001.01  
Collection D/T: 03/28/2013 12:00  
Request Loc: 03/28/2013 12:44  
Requester Code: G2SE2  
Room Number: CHEN, LEILEI  
Diagn. Code 1: CHEN, LEILEI  
Diagn. Code 2: CHEN, LEILEI  
Sel. Criteria: ALL TYPES

**OP ALERTS**

WBC Delta failure: Decreased check for clot, chemo/immunosupp;  
Increased check surg, proc/infec.

**RESULT VALIDATION**

**SID** 402800089L8

**Result Validation** Rerun Manual Differential Morphology **Previous Result** Critical Results

CURRENT SAMPLE	PREV 1	PREV 2	PREV 3	PREV 4	PREV 5
SampleID: 402800089L8	402500037L8	402500035L8	402200060L8	402200033L8	402000133L8
Coll. Date: 03/28/13	03/25/13	03/25/13	03/22/13	03/22/13	03/20/13
Coll. Time: 12:00	13:37	12:00	14:00	11:00	14:00
.SICK .BACT .CRYMB .SPIE .STOM .TARG .TEARD .AGGL .AURO .AUTO .BILO .BIZA .BLIS .CADOT .CDON .DOHL .DIFFC .GINE .HEINZ .HYPE .HYPG	.SICK .BACT .CRYMB .SPIE .STOM .TARG .TEARD .AGGL .AURO .AUTO .BILO .BIZA .BLIS .CADOT .CDON .DOHL .DIFFC .GINE .HEINZ .HYPE .HYPG	.SICK .BACT .CRYMB .SPIE .STOM .TARG .TEARD .AGGL .AURO .AUTO .BILO .BIZA .BLIS .CADOT .CDON .DOHL .DIFFC .GINE .HEINZ .HYPE .HYPG	.SICK .BACT .CRYMB .SPIE .STOM .TARG .TEARD .AGGL .AURO .AUTO .BILO .BIZA .BLIS .CADOT .CDON .DOHL .DIFFC .GINE .HEINZ .HYPE .HYPG	.SICK .BACT .CRYMB .SPIE .STOM .TARG .TEARD .AGGL .AURO .AUTO .BILO .BIZA .BLIS .CADOT .CDON .DOHL .DIFFC .GINE .HEINZ .HYPE .HYPG	.SICK .BACT .CRYMB .SPIE .STOM .TARG .TEARD .AGGL .AURO .AUTO .BILO .BIZA .BLIS .CADOT .CDON .DOHL .DIFFC .GINE .HEINZ .HYPE .HYPG
View Critical Res.	View Critical Res.	View Critical Res.	View Critical Res.	View Critical Res.	View Critical Res.
Expand Ord.	Expand Ord.	Expand Ord.	Expand Ord.	Expand Ord.	Expand Ord.

Acc No. 1 of 1

**DETAILS ACTIONS COMMENTS REFRESH SWITCH TO QUERY SCREEN ACCEPT QUIT**

Note that SoftLAB will state "Smear to be reviewed by pathologist".

**Order Entry - [402800089L8] [GROSSE POINTE]**

**\*\* Summary does not include Microbiology, Blood Bank, or Anatomic Pathology Laboratories**

Laboratory Key for Results: L - LOW, H - HIGH, AB - ABNORMAL, LL - CRITICAL LOW, HH - CRITICAL HIGH, C - CRITICAL

Microbiology Key for Results: \* - NEW RESULTS \*\* - RESULT WAS MODIFIED AFTER FINAL STATUS SET

Blood Bank Key for Results: NEG - NEGATIVE, POS - POSITIVE

Order #: 402800089 Collected: 03/28/2013 12:00

Test Name	Result	ABN	Ref-Range	Units	Site
<b>Complete Blood Count w Diff</b>					
WBC	5.9		3.5-10.1	bil/L	G *
RBC	4.82		4.31-5.48	tri/L	G *
Hemoglobin	15.1		13.5-16.0	g/dL	G *
Hematocrit	45.4		40.0-50.1	%	G *
MCV	125	H	80-100	fL	G *
MCH	30		28-33	pg	G *
MCHC	33		32-35	g/dL	G *
RDW SD	45			fL	G *
RDW CV	13		12-15	%	G *
Platelet	224		150-400	bil/L	G *
Neutrophils	3.3		1.6-7.2	bil/L	G *
Lymphocytes	2.0		1.1-4.0	bil/L	G *
Monocytes	0.3		0.0-0.9	bil/L	G *
Eosinophils	0.2		0.0-0.4	bil/L	G *
Immature Granulocytes	0.0		0.00-0.04	bil/L	G *
Diff Comment	see below				G *
Smear to be reviewed by pathologist.					G *
Hypersegmented Neutrophils	Present	AB			G *
Platelet Estimate	Adequate				G *
RBC Morphology	See Below				G *

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## HEMATOLOGY WAM WORKFLOWS

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### Authorized Reviewers

Supervisor, Hematology

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## HEMATOLOGY WAM WORKFLOWS

### Document Control

**Location of Master:** Hematology Workflow Manual

**Master electronic file stored on the Beaumont Laboratory server under:**

S:/Hemacoag/Document Control/Hematology/Workflows/Hematology WAM Workflows.doc

**Number of Controlled Copies posted for educational purposes: 0**

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### Document History

Signature	Date	Revision #		Related Documents Reviewed/ Updated
Prepared by: Mary Wyrzykowski, MT(ASCP) Ann Whitford, MT(ASCP) Cindy Kopenski, MT(ASCP) Noelle Procopio, MT(ASCP)SH	04/09/2013			
Approved by: Noelle Procopio MT(ASCP)SH	04/12/2013			
Reviewed by: (Signature)	Date	Revision #	Modification	Related Documents Reviewed/ Updated
Noelle Procopio, MT(ASCP)SH	04/12/2013	00	New workflow.	OK
Noelle Procopio, MT(ASCP)SH	04/14/2015	01	Removed directive to document cancellations on Specimen Problem Log; clarified directive to check Previous Result tab and scroll when viewing previous results; added directive/purpose for calling up WAM pending logs twice per shift; updated steps for taking label/specimen to Microbiology.	OK
Noelle Procopio, MT(ASCP)SH	03/27/2017	02	Added Morphology Checks to CBCND smear review; Added Platelet Satellitosis to PLT Clumped section and updated pic; added CBC Corrections to related documents; updated logo.	OK
Peter Millward, MD	02/13/2019		New Medical Director	

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