Bassett Healthcare Network

Reflex Testing v2.1
Type: Policy
Effective Date: 7/25/2023
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148355.1012 Reflex Testing

Copy of version 2.1 (approved and current)

Last Approval or Periodic Review Completed	7/11/2023
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Organization	Bassett Medical Center Lab

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Description

Added Author

Comments for version 2.0 (last major revision)
All codes and descriptions reviewed and updated to match B-Net Online Laboratory Manual. Removed Microbiology testing no longer performed.

Comments for version 2.1 (this revision)
Edited by E.T.: Minor addition to beginning text. Updated the reflexive testing table for each department. Added a table of calculations performed by the LIS for both Hematology and Chemistry.

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Approval and Periodic Review Signatures

Type	Description	Date	Version	Performed By	Notes
Approval	Lab Director	7/11/2023	2.0	Valerie Bush PhD Clinical Laboratory Director (M05512)	
Approval	Lab Director	7/3/2023	2.0	Ghazala Nathu MD Clinical Laboratory Director (S00134)	
Approval	Lab Director	6/30/2023	2.0	Samantha Davenport MD Service Line Chief (M03764)	
Approval	Lab Director	6/30/2023	2.0	John Fisk MD Clinical Laboratory Director (M08480)	
Approval	Lab Director	6/29/2023	2.0	Timothy Chapman MD Clinical Laboratory Director (M11669)	

Version History

Version	Status	Type	Date Added	Date Effective	Date Retired
2.1	Approved and Current	Minor revision	7/25/2023	7/25/2023	Indefinite
2.0	Retired	Initial version	6/29/2023	7/11/2023	7/25/2023

REFLEX TESTING

It is the policy of the Bassett Healthcare Clinical Laboratories to perform reflex testing automatically when the two following conditions are met:

a. Standard industry practice (example: susceptibility testing and confirmations).
b. Institutional practice based on standard staff practice.

These criteria have been predetermined based on specific medical criteria and are consistent with best medical practices.

a. There is currently no CMS reimbursement policy for (or against) reflex testing. Tests that are reflexed should be reasonable and medically necessary.
b. The CMS requires that the physician has the option of selecting a reflex protocol or a single test. The patient will be billed appropriately. Reflexive calculations are not billed.
c. When ordering an Initial Test that is subject to an optional Reflex Test, the ordering physician must consider whether the reflex test is medically necessary for the patient. If the ordering physician considers the reflex test unnecessary then he/she should consider ordering the initial test without the reflex test. The Office of Inspector General of the Department of Health and Human Services takes the position that a physician who orders medically unnecessary tests for which Medicare reimbursement is claimed may be subject to civil penalties.
d. Identification of reflex tests will be noted and updated as needed on the Bassett Healthcare Laboratory website and on the Laboratory Requisitions. If reflexive testing occurs for a single test, the word "Reflex" will be included in the test order name.
e. Notices of updates to the policy will be sent to Medical Staff via mass email**.**

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Point of Care (Health Centers)

Test Ordered	Test Performed	Epic Code	Criteria for Reflex	Test Ordered by Reflex	Epic Code
Rapid Beta Strep	RBS	POC14	Negative	RBSSC (Culture)*	LAB2110
Glucose by Meter	PGLUC	POC10	< 10 or > 600 mg/dL	Venous Glucose**	LAB82
Fingerstick INR	FSPT	POC115 POC162	INR > 6.0	Venous PT/INR**	LAB320
Hemoglobin	PGHB	POC3	Hgb < 6.0 g/dL	Venous Hgb**	LAB291

*Culture will be performed due to low sensitivity of rapid test.
**Test performed by the lab to confirm results.

Chemistry

Test Ordered	Test Performed	Epic Code	Criteria for Reflex	Test Ordered by Reflex	Epic Code
CVPC (Lipid Profile)	Cholesterol, Trig, HDL, calculated LDL	LAB3802	Trig ≥ 400 mg/dL	Measured LDL	LAB102
Thyroid Reflexive Profile	TSHR	LAB3889	TSH > 4.50 µIU/mL	T4, Free	LAB127
Thyroid Reflexive Profile	TSHR	LAB3889	TSH < 0.41 µIU/mL	T4, Free & T3, Total*	LAB127 LAB136 LAB38891*
HIV	HIV Antibody/Antigen Screen	LAB473	Preliminary Positive	HIV Antibody Confirmation and Differentiation	LAB3688
Hepatitis B Surface Antigen	HBS	LAB471	Preliminary Positive	Hepatitis B Surface Antigen Confirmation	LAB471A
Hepatitis B Core, Total Antibody	HBCABTR	LAB1242	Equivocal or Positive	Hepatitis B Core, IgM Antibody	LAB549
Hepatitis C Antibody	AHCV	LAB21130	Equivocal or Positive	Hepatitis C RNA Detection and Quantification by RTPCR	LAB887
Syphilis, T. Pallidum Total Antibody w/ Reflex	Treponema Pallidum Total Antibody	LAB4400	Reactive	RPR (Rapid Plasma Reagin)	LAB494
PSA, Screen w/ Reflex	TPSAR	LAB3842	TPSA > 4.0 ng/mL	PSA, Free Screen	N/A
PSA, Monitoring w/ Reflex	TPSAMR	LAB3843	TPSA > 4.0 ng/mL	PSA, Free Monitoring	N/A

*LAB38891 (FT4 & TT3 panel) is only reflexed at non-MIB BHN Laboratories.

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Blood Transfusion Services

Test Ordered	Test Performed	Epic Code	Criteria for Reflex	Test Ordered by Reflex
Type and Screen	TSC	LAB276	Positive Screen or ABO Type Discrepancy	Antibody Identification Studies
Cardiac Type and Screen	Cardiac TSC (Antibody screen and cold agglutinin screen)	LAB21084	1. Positive Screen 2. When positive screen identifies a nonspecific cold agglutinin	1. Antibody Identification Studies 2. Cold agglutinin titer and thermal amplitude studies
Direct Antiglobulin Test	DAT	LAB274	Positive due to IgG	Eluate if patient is pregnant or transfused in the last 3 months
Post-Partum Rhogam Studies	PPRHO (Fetal Bleed Screening Test, FTSC)	LAB21076	1. FTSC is positive 2. FTSC is invalid 3. Baby is weak D positive and Mom is Rh negative	Fetal Hemoglobin Stain (Kleihauer-Betken stain)
Cord Blood Hold	CBHOLD	LAB21083	1. Mom is Rh-negative 2. Mom is Type O	Infant Group & Rh and DAT

Hematology

Test Ordered	Test(s) Performed	Epic Code	Criteria for Reflex	Test Ordered by Reflex	Epic Code
Heme Profile w/ Automated Differential or WBC Differential	CBCA or Diff Only	LAB1748 LAB334	All neonates < 30 days old	Manual or Cellavision Differential	N/A
			Any WBC Instrument Flag	Manual or Cellavision Differential	N/A
			Outpatient and: 1. Baso > 5% 2. IG > 5% 3. WBC > 30 4. Eos > 20% 5. Mono > 20% 6. Add diff = Yes (Q flag, asterisk, NRBC, WBC < 1)	Manual or Cellavision Differential	N/A
			Inpatient w/ no previous manual or Cellavision diff, WBC > 1 and: 1. Baso > 5% 2. IG > 5% 3. WBC > 30 4. Eos > 20% 5. Mono > 20% 6. Add diff = Yes (Q flag, asterisk, NRBC, WBC < 1)	Manual or Cellavision Differential	N/A
Heme Profile or Heme Profile w/ Automated Differential	CBC CBCA	LAB294 LAB1748	Any RBC Instrument Flag	Manual or Cellavision Slide Review	N/A
			Patient > 1 month, does not meet manual differential criteria and:	Manual or Cellavision Slide Review	N/A

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			1. MCV < 65 or > 110 2. RDW > 65 3. MCHC < 30		
Heme Profile or Heme Profile w/ Automated Differential, Platelet Count, Automated	CBC CBCA Platelet Count	LAB294 LAB1748 LAB301	Platelet Clumps	Review for platelet clumping or clotting	N/A
			PLT < 100 x 10^3 /µL (Thrombocytopenia)	Platelet review if previous PLT > 100 or PLT < 100 and no PLT review in previous 1 year	N/A
			PLT > 1000 x 10^3 /µL (Thrombocytosis)	Platelet review if previous PLT< 1000 or PLT > 1000 and no PLT review in previous 1 year	N/A
			Any Other Platelet Instrument Flag	Platelet review on smear if no previous slide review	N/A
Body Fluid Cell Count w/ Reflex Differential	Body Fluid Cell Count	LAB210	WBC ≥ 6	Manual BF WBC Differential	N/A
CSF Cell Count w/ Reflex Differential	CSF Cell Count	LAB212	WBC ≥ 6	Manual CSF WBC Differential	N/A
Mono w/ Reflex to EBVC	Mono Reflex	LAB2295	Negative	Epstein-Barr Virus (EBV) Antibody Profile	LAB2457

Microbiology

Test Ordered	Initial Test Performed	Criteria for Reflex	Test Ordered by Reflex
Wound Culture	Culture Plating and Gram Stain	Automatic if received in proper collection container	Gram Stain
Fluid Culture	Culture Plating and Gram Stain	Automatic if received in proper collection container	Gram Stain
Sputum Culture	Culture Plating and Gram Stain	If sample is "induced" in any way (Leuken's trap, Bronchial Wash, etc…)	Culture
Sputum Culture	Culture Plating and Gram Stain	Sample is "non-induced" and < 10 Epithelial cells and > 10 PMN see on Gram stain	Culture
Fungal Stain	Fungal Stain	Source is CSF	Fungal Culture and Cryptococcal antigen
Rapid Beta Strep	Rapid Beta Strep	Negative	Culture
Clostridium difficile NAAT w/ Reflex to Toxin	C. difficile by NAAT	Positive	C. difficile Toxin
Blood Culture	Culture Plating and Gram Stain (if positive)	Positive bottle showing GPC or GNR on the Gram stain	Blood Culture Molecular Identification (BCID panel). Only performed once if consecutive positive bottles show the same organism.

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Anaerobic Culture Only	Anaerobic Culture	Automatic	Aerobic Culture (Wound or Fluid) w/ Gram stain
Anaerobic Culture	Anaerobic Culture	Automatic	Presence of significant anaerobic organism reflexes to organism identification
Aerobic Culture	Any aerobic culture	Automatic	Presence of significant aerobic organism reflexes to organism identification and susceptibility (if appropriate)

Serology

Test Ordered	Test(s) Performed	Epic Code	Criteria for Reflex	Test Ordered by Reflex	Epic Code
Cryptococcal Antigen	CRL	LAB779	Positive	Cryptococcal Titer	N/A
RPR w/ Reflex	RPRR	LAB4941	Reactive	RPR Titer	N/A
RPR w/ Reflex	RPRR	LAB4941	Non-reactive	Treponema pallidum Particle Agglutination (TP-PA)	LAB3599

Urinalysis

Test Ordered	Test(s) Performed	Epic Code	Criteria for Reflex	Test Ordered by Reflex	Epic Code
Urinalysis	RTUA RTUAC	LAB21012 LAB21014	Cloudy appearance, abnormal color, or abnormal glucose, protein, blood, nitrite, or leukocyte esterase	Urine Microscopic	LAB21017
Urinalysis w/ Reflex to Culture	RTUAC	LAB21014	Two out of three are present: Positive nitrites, positive leukocyte esterase and/or greater than ten WBC/hpf seen on microscopic AND there are less than 6 squamous epithelial cells/hpf	Urine Culture	LAB239
Urinalysis w/ Positive Bilirubin	RTUA RTUAC UMAC	LAB21012 LAB21014 LAB21015	Positive Bilirubin	Diazo Check	N/A

Cytology

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Test Ordered	Test Performed	Epic Code	Criteria for Reflex	Test Ordered by Reflex
Non Gyn, Cytology - Source of Thyroid	Thyroid Non Gyn Cytology	LAB13	Cytology Results of Bethesda Category 3,4, or 5	LAB7701 ThyGenext w/ Reflex to ThyraMir
Non Gyn, Cytology - Source of Anal Pap	Anal Non Gyn Cytology	LAB13	Abnormal Result (Not Negative)	LAB92807 HPV Genotype 16, 18/45 Anal-Rectal
ThinPrep Pap w/ HPV	ThinPrep Pap	LAB5	Any Satisfactory Pap Result on a Patient ≥ 30 Years Old	LAB31135 HPV w/ Reflex to Genotyping if Positive*
ThinPrep Pap with HPV Regardless	ThinPrep Pap	LAB5	Any Satisfactory Pap Result	LAB31135 HPV w/ Reflex to Genotyping if Positive*
ThinPrep Pap w/ HPV	ThinPrep Pap	LAB5	Abnormal Pap Result on a Patient 25 - 29 Years Old	LAB31135 HPV w/ Reflex to Genotyping if Positive*
ThinPrep Pap w/ HPV	ThinPrep Pap	LAB5	Unsatisfactory	LAB21135 Mayo HPV w/ Reflex to Genotyping if Positive
ThinPrep Pap with HPV Regardless	ThinPrep Pap	LAB5	Unsatisfactory	LAB21135 Mayo HPV w/ Reflex to Genotyping if Positive

*Patients with a ThinPrep Pap source of vaginal reflex to LAB21135 (Mayo HPV w/ Reflex to Genotyping if Positive)

Chemistry Calculations Performed in Epic

Test Ordered	Component(s) Required for Calculation	Epic Code	Calculation(s)	Associated Tests/Panels	Epic Code
% FPSA Monitor	FPSA, TPSA	N/A	(FPSA/TPSA)*100	FPSA, Monitor	N/A
% FPSA Screen	FPSA, TPSA	N/A	(FPSA/TPSA)*100	FPSA, Screen	N/A
Total Iron Binding Capacity (TIBC)	Transferrin	LAB829	Transferrin*1.4	% Iron Sat. UIBC	LAB3799 LAB3798
Iron Saturation Profile	Iron, Transferrin	LAB3799	(Iron*100)/TIBC	N/A	N/A
Unbound Iron Binding Capacity (UIBC)	Iron, Transferrin	LAB3798	Iron - TIBC	N/A	N/A
Albumin/Globulin Ratio	Albumin, Total Protein	N/A	Albumin / (Total Protein - Albumin)	Albumin CMP	LAB45 LAB17

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Globulin	Albumin, Total Protein	N/A	Total Protein - Albumin	Albumin	LAB45
BUN/Creatinine Ratio*	BUN, Creatinine	N/A	BUN/Creatinine	BUN BMP CMP Renal Panel	LAB140 LAB15 LAB17 LAB19
Calcium, Corrected	Calcium, Albumin	LAB3131	0.8*(4-({Alb.}+0.3))+{Calc.}	N/A	N/A
Anion Gap**	Sodium, Chloride, Carbon Dioxide	N/A	{Na}-({Cl}+{CO2})	BMP CMP Renal Panel Lytes Panel	LAB15 LAB17 LAB19 LAB16
Calcium/Phos. Product	Calcium, Phosphorus	LAB21110	{Calcium}*{Phosphorus}	N/A	N/A
Urea Reduction Ratio	PreBUN PostBUN	LAB21113	((Pre - Post)/Pre)*100	PreBUN	LAB21107
Indirect Bilirubin	Total Bilirubin Direct Bilirubin	N/A	T. Bilirubin - D. Bilirubin	Bilirubin, Fractionation	LAB21115
LDL Cholesterol	Total Cholesterol HDL Cholesterol Triglycerides	N/A	Cholesterol - HDL - (Trig/5)	Lipid Panel (CVPC)	LAB3802
Calculated Osmolality	Sodium, BUN, Glucose	N/A	(Na*2)+(BUN/2.8)+(Glucose/18)	BMP CMP Renal Panel Osmo, Calc.	LAB15 LAB17 LAB19 LAB21777
Creatinine Clearance, Corrected	Creatinine, Urine Urine Volume Creatinine, Serum Collection Hours Body Surface Area	LAB383	$\frac{(\text{Ur. Creat.} * \text{Ur. Vol})}{(\text{S. Creat.}(\text{Hours} * 60))(1.73/\text{BSA})}$	N/A	N/A
Body Surface Area	Weight (W), Height (H)	N/A	(W^.425)*(H^.725)*(.007184)	Creatinine Clearance, Corrected	LAB383
Creatinine Clearance, Uncorrected	Creatinine, Urine Urine Volume Creatinine, Serum Collection Hours	LAB383	$\frac{(\text{Ur. Creat.} * \text{Ur. Vol})}{(\text{S. Creat.}(\text{Hours} * 60))(1.73/\text{BSA})}$	N/A	N/A
eGFR - AU, i-STAT, & Nova Prime Plus Methods					
Creatinine ≤ 0.7 (F)	Creatinine	N/A	143((Crtn/0.7)^-.241)(.994^Age)	BMP CMP Renal Panel Creatinine	LAB15 LAB17 LAB19 LAB66

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Creatinine > 0.7 (F)	Creatinine	N/A	143((Crtn/0.7)^-1.2)(.994^Age)	BMP CMP Renal Panel Creatinine	LAB15 LAB17 LAB19 LAB66
Creatinine ≤ 0.9 (M)	Creatinine	N/A	142((Crtn/0.9)^-.302)(.994^Age)	BMP CMP Renal Panel Creatinine	LAB15 LAB17 LAB19 LAB66
Creatinine > 0.9 (M)	Creatinine	N/A	142((Crtn/0.9)^-1.2)(.994^Age)	BMP CMP Renal Panel Creatinine	LAB15 LAB17 LAB19 LAB66
24 Hour Urine Output					
Calcium Output	Urine Calcium Total Volume	LAB814	({Ur. Ca}*Vol.)/100	24 Hour Urine Panel	LAB3344
Magnesium Output	Urine Magnesium Total Volume	LAB406	({Ur. Mg}*Vol.)/100	24 Hour Urine Panel	LAB3344
Chloride Output	Urine Chloride Total Volume Collection Hours	LAB21024	{Ur. Cl}*((Vol*Hours)/24)/1000	24 Hour Urine Panel	LAB3344
Urea Nitrogen Output	Urine Urea Nitrogen Total Volume	LAB21025	{Ur. UN}*(Vol./100)/1000	24 Hour Urine Panel	LAB3344
Creatinine Output	Urine Creatinine Total Volume	LAB712	({Ur. Crtn}*(Vol./100))/1000	24 Hour Urine Panel	LAB3344
Glucose Output	Urine Glucose Total Volume	LAB396	({Ur. Gluc}*(Vol./100))/1000	24 Hour Urine Panel	LAB3344
Potassium Output	Urine Potassium Total Volume	LAB436	({Ur. K}*Vol.)/1000	24 Hour Urine Panel	LAB3344
Sodium Output	Urine Sodium Total Volume	LAB446	({Ur. Na}*Vol.)/1000	24 Hour Urine Panel	LAB3344
Phosphorus Output	Urine Phosphorus Total Volume	LAB21026	({Ur. Phos}*(Vol./100))/1000	24 Hour Urine Panel	LAB3344
Protein Output	Urine Protein Total Volume	LAB441	({Ur. Prot.}*Vol.)/100	24 Hour Urine Panel	LAB3344
Uric Acid Output	Urine Uric Acid Total Volume	LAB841	({Ur. UA}*(Vol./100))/1000	24 Hour Urine Panel	LAB3344
Microalbumin Output	Microalbumin Total Volume	LAB410	({MALB}*Volume)/1000	24 Hour Urine Panel	LAB3344

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Microalbumin Excretion Ratio	Microalbumin Total Volume Collection Hours	N/A	{MALB}*(Vol./(Hours *60))	Microalbumin 24 Hour Urine 24 Hour Urine Panel	LAB410 LAB3344
Urine Protein/Urine Creatinine Ratio	Urine Protein Urine Creatinine	N/A	Ur. Protein / Ur. Creatinine	Protein, Random Urine	LAB439
Microalbumin/Urine Creatinine Ratio	Microalbumin Urine Creatinine	N/A	({MALB}/{Ur. Creatinine})*100	Microalbumin, Random Urine	LAB21036
12 Hour Urine Output					
Protein Output	Urine Protein Total Volume	LAB441A	({Ur. Prot.}*Vol.)/100	N/A	N/A
Creatinine Output	Urine Creatinine Total Volume	LAB712A	({Ur. Crtn}*(Vol./100))/1000	N/A	N/A
44 Hour Urine Output					
Urea Nitrogen Output	Urine Urea Nitrogen Total Volume	N/A	{Ur. UN}*(Vol./100)/1000	Dialysis, 44 Hour Urine Profile	LAB21037
Creatinine Output	Urine Creatinine Total Volume	N/A	({Ur. Crtn}*(Vol./100))/1000	Dialysis, 44 Hour Urine Profile	LAB21037

*Reported on inpatients only; same calculation used for the Nova Prime Plus method.
**Same calculation used for Nova & i-STAT methods.

Hematology Calculations Performed in Epic

Calculation Performed	Component(s) Required for Calculation	Formula	Associated Tests/Panels	Epic Code
Relative NRBC	NRBC Total Cells	(NRBC/Total Cells)*100	Heme Profile w/ Automated Differential or WBC Differential Nucleated Red Blood Cell	LAB1748 LAB334 LAB21230
Absolute NRBC	WBC NRBC	(WBC*NRBC)/100	Heme Profile w/ Automated Differential or WBC Differential Nucleated Red Blood Cell	LAB1748 LAB334 LAB21230

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Relative Segmented Neutrophils	Segs Total Cells	(Segs/Total Cells)*100	Heme Profile w/ Automated Differential or WBC Differential	LAB1748 LAB334
Absolute Segmented Neutrophils	WBC Segs Total Cells Bands	**Refer to Formula Below Table**	Heme Profile w/ Automated Differential or WBC Differential	LAB1748 LAB334
Relative Band Neutrophils	Bands Total Cells	(Bands*100)/Total Cells	Heme Profile w/ Automated Differential or WBC Differential	LAB1748 LAB334
Absolute Band Neutrophils	WBC Bands Total Cells	$\frac{(\frac{(WBC * 1000)(Bands * 100)}{Total\ Cells})}{100}$	Heme Profile w/ Automated Differential or WBC Differential	LAB1748 LAB334
Relative Lymphs	Lymphs Total Cells	(Lymphs*100)/Total Cells	Heme Profile w/ Automated Differential or WBC Differential	LAB1748 LAB334
Absolute Lymphs	WBC Lymphs Total Cells	$\frac{(\frac{(WBC * 1000)(Lymphs * 100)}{Total\ Cells})}{100}$	Heme Profile w/ Automated Differential or WBC Differential	LAB1748 LAB334
Relative Monos	Monos Total Cells	(Monos*100)/Total Cells	Heme Profile w/ Automated Differential or WBC Differential	LAB1748 LAB334
Absolute Monos	WBC Monos	(WBC*1000*Monos)/100	Heme Profile w/ Automated Differential or WBC Differential	LAB1748 LAB334
Relative Eos	Eos Total Cells	(Eos*100)/Total Cells	Heme Profile w/ Automated Differential or WBC Differential	LAB1748 LAB334
Absolute Eos	WBC Eos	(WBC*1000*Eos)/100	Heme Profile w/ Automated Differential or WBC Differential	LAB1748 LAB334

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Relative Basos	Basos Total Cells	(Basos*100)/Total Cells	Heme Profile w/ Automated Differential or WBC Differential	LAB1748 LAB334
Absolute Basos	WBC Basos	(WBC*1000*Basos)/100	Heme Profile w/ Automated Differential or WBC Differential	LAB1748 LAB334
Relative Reactive Lymphs	Reactive Lymphs Total Cells	(R. Lymph*100)/Total Cells	Heme Profile w/ Automated Differential or WBC Differential	LAB1748 LAB334
Absolute Reactive Lymphs	WBC Reactive Lymphs	$\frac{(WBC * 1000)(\frac{R.\,Lymph * 100}{Total\ Cells})}{100}$	Heme Profile w/ Automated Differential or WBC Differential	LAB1748 LAB334
Relative Blasts	Blasts Total Cells	(Blasts/Total Cells)*100	Heme Profile w/ Automated Differential or WBC Differential	LAB1748 LAB334
Absolute Blasts	WBC Blasts	(WBC*1000*Blasts)/100	Heme Profile w/ Automated Differential or WBC Differential	LAB1748 LAB334
Relative Promyelos	Promyelos Total Cells	(Promyelos*100)/Total Cells	Heme Profile w/ Automated Differential or WBC Differential	LAB1748 LAB334
Absolute Promyelos	WBC Promyelos	(WBC*1000*Promyelos)/100	Heme Profile w/ Automated Differential or WBC Differential	LAB1748 LAB334
Relative Myelos	Myelos Total Cells	(Myelos*100)/Total Cells	Heme Profile w/ Automated Differential or WBC Differential	LAB1748 LAB334
Absolute Myelos	WBC Myelos	(WBC*1000*Myelos)/100	Heme Profile w/ Automated Differential or WBC Differential	LAB1748 LAB334

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Relative Metas	Metas Total Cells	(Metas*100)/Total Cells	Heme Profile w/ Automated Differential or WBC Differential	LAB1748 LAB334
Absolute Metas	WBC Metas	(WBC*1000*Metas)/100	Heme Profile w/ Automated Differential or WBC Differential	LAB1748 LAB334
Relative Plasmacytoids	Plasma Total Cells	(Plasma*100)/Total Cells	Heme Profile w/ Automated Differential or WBC Differential	LAB1748 LAB334
Absolute Plasmacytoids	WBC Plasma	(WBC*1000*Plasma)/100	Heme Profile w/ Automated Differential or WBC Differential	LAB1748 LAB334
Relative Cell 1	Cell 1 Total Cells	(Cell 1*100)/Total Cells	Heme Profile w/ Automated Differential or WBC Differential	LAB1748 LAB334
Absolute Cell 1	WBC Cell 1	(WBC*1000*Cell 1)/100	Heme Profile w/ Automated Differential or WBC Differential	LAB1748 LAB334
Relative Segmented Neutrophils CSF	Segs Total Cells	(Segs*100)/Total Cells	CSF Cell Count	LAB212
Relative Segmented Neutrophils BF	Segs Total Cells	(Segs*100)/Total Cells	Body Fluid Cell Count	LAB210
Relative Lymphs CSF	Lymphs Total Cells	(Lymphs*100)/Total Cells	CSF Cell Count	LAB212
Relative Lymphs BF	Lymphs Total Cells	(Lymphs*100)/Total Cells	Body Fluid Cell Count	LAB210
Relative Monos CSF	Monos Total Cells	(Monos*100)/Total Cells	CSF Cell Count	LAB212
Relative Monos BF	Monos Total Cells	(Monos*100)/Total Cells	Body Fluid Cell Count	LAB210
Relative Unid. Monos CSF	Unid. Monos Total Cells	(Unid. Monos*100)/Total Cells	CSF Cell Count	LAB212
Relative Unid. Monos BF	Unid. Monos Total Cells	(Unid. Monos*100)/Total Cells	Body Fluid Cell Count	LAB210
Relative Eos CSF	Eos Total Cells	(Eos*100)/Total Cells	CSF Cell Count	LAB212

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Relative Eos BF	Eos Total Cells	(Eos*100)/Total Cells	Body Fluid Cell Count	LAB210
Relative Basos CSF	Basos Total Cells	(Basos*100)/Total Cells	CSF Cell Count	LAB212
Relative Basos BF	Basos Total Cells	(Basos*100)/Total Cells	Body Fluid Cell Count	LAB210
Relative Cell 1 CSF	Cell 1 Total Cells	(Cell 1*100)/Total Cells	CSF Cell Count	LAB212
Relative Cell 1 BF	Cell 1 Total Cells	(Cell 1*100)/Total Cells	Body Fluid Cell Count	LAB210
Relative Cell 2 CSF	Cell 2 Total Cells	(Cell 2*100)/Total Cells	CSF Cell Count	LAB212
Relative Cell 2 BF	Cell 2 Total Cells	(Cell 2*100)/Total Cells	Body Fluid Cell Count	LAB210
Fluid Hematocrit	Fluid Hct 1 Fluid Hct 2	(Fluid Hct 1 + Fluid Hct 2)/2	Hematocrit, Body Fluid	LAB202
Manual Hematocrit	Man. Hct 1 Man. Hct 2	(Man. Hct 1 + Man. Hct)/2	Hematocrit, Manual	LAB22113
Retic RPI (Hct > 40%)	Hematocrit % Retic	(Hct/45)(% Retic)/1	Reticulocyte Panel	LAB296
Retic RPI (Hct 30 - 39.9%)	Hematocrit % Retic	(Hct/45)(% Retic)/1.5	Reticulocyte Panel	LAB296
Retic RPI (Hct 20 - 29.9%)	Hematocrit % Retic	(Hct/45)(% Retic)/2	Reticulocyte Panel	LAB296
Retic RPI (Hct < 20%)	Hematocrit % Retic	(Hct/45)(% Retic)/2.5	Reticulocyte Panel	LAB296
Corrected WBC	WBC %NRBC	$\frac{((WBC * 1000) * 100)}{(\%NRBC + 100)/1000}$	Heme Profile w/ Automated Differential or WBC Differential	LAB1748 LAB334

Absolute Segment Neutrophil Formula: $\frac{(\left((WBC * 1000)\left(Segs * \frac{100}{Total\ Cells}\right)\right) + \left((WBC * 1000)\left(Bands * \frac{100}{Total\ Cells}\right)\right))}{100}$

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