



Current Status: Active

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Owner: Sally Kramer: Manager - Lab
 Science Tech - SJ

Policy Area: Lab / Chemistry

References:

Applicability: St. Francis Hospital
 Highline Medical Center
 St. Anthony Hospital
 St. Clare Hospital
 St. Joseph Medical Center

Chemistry Indices, R-F-CH-1941-02

	LIS Mnemonic	INDEX or Flag	INCREASED (Tests)	DECREASED (Tests)
HEMOLYSIS				
No hemolysis	None	0 – 1	None	None
50-100 mg/dL	Slight	2	ALT, AMM, AST, CK, FOLW, FE, LD, K, VITB12	None
101-200 mg/dL	Moderate	3 to 4	ALT, AMM, AST, CK, FOLW, FE, LD, K, PHOS, TBIL, VITB12	DBIL
201-300 mg/dL	Marked	5 to 6	ALT, AMM, AMY, AST, BOHB, CK, FOLW, FE, LD, LIP, LI, MG, PHOS, K, TBIL, VITB12	DBIL
301-500 mg/dL	Gross	7 to 10	ALT, AMM, AMY, AST, BOHB, CK, FER, FOLW, FE(IRON), LD, LACT, LIP, LI, MG, PHOS, K, SALY, TBIL, TG	ALP DBIL GGT
		DH flag	URIC, VITB12, VITD 25(OH) <ul style="list-style-type: none"> Reject values, redraw/cancel/credit test(s). Use HEMOLYZED cancel reason. Notify provider/unit, request recollection. For "DH" flag - Reject values. Redraw/cancel/credit test(s) using Hemolyzed cancel reason. Same tests affected as gross hemolysis.	
LIPEMIA				
No lipemia	None	0-1	none	none
0-80 mg/dL	Slight	2 to	AMM, CRP*	none

	LIS Mnemonic	INDEX or Flag	INCREASED (Tests)	DECREASED (Tests)
		3		
81-200 mg/dl	Moderate	4 to 6	AMM, CRP*, FE, PAB, SALY, URIC, VPA	TBIL, TP (see Lipemia Notes*)
201-320mg/dl	Marked	7 to 8	ALB, ALT, AMM, AST,BUN,CA,CAR,CL, CK, CO2, CRE, CRP*, FE, GLU, LIP, MG, NA, PAB, SALY, THEO, URIC, VPA	TBIL, TP (see Lipemia Notes*)
321-400 mg/dl	Gross	9 to 10	ALB, ALT, AMM, AST,BUN,CALC,CAR,CL, CK, CO2, CRE, CRP*, FE, GENT, GGT, GLU, LIP, LI, MG, NA, PAB, SALY, THEO, URIC, VPA <ul style="list-style-type: none"> • Airfuge sample • Report Lipemia from original sample • See additional information below 	DBIL, TBIL, TP (see Lipemia Notes*)
		DH flag	For "DH" flag – report as 10 in Remisol or GROSS in the LIS. Airfuge sample.	

SLIGHT HEMOLYSIS –Mnemonic- Slightly Hemolyzed (FHS)

Specimen is SLIGHTLY HEMOLYZED.

The following tests may be increased due to hemolysis: ALT, Ammonia, AST, CK, Folate, Iron, LDH, Potassium and Vitamin B12.

MODERATE HEMOLYSIS –Mnemonic- Moderately Hemolyzed (FHS)

Specimen is MODERATELY HEMOLYZED. Consider redraw of sample if clinically appropriate.

The following tests may be increased due to hemolysis: ALT, Ammonia, AST, CK, Folate, Iron, Phosphorus, Potassium, LDH, Total Bilirubin and Vitamin B12. Direct Bilirubin may be decreased.

MARKED HEMOLYSIS –Mnemonic- Markedly Hemolyzed (FHS)

Specimen is MARKEDLY HEMOLYZED. Recollection of sample is recommended.

The following tests may be increased due to hemolysis: ALT, Ammonia, Amylase, AST, Beta-Hydroxybutyrate, CK, Folate, Iron, LDH, Lipase, Lithium, Magnesium, Phosphorus, Potassium, Total Bilirubin and Vitamin B12. Direct Bili may be decreased.

GROSS HEMOLYSIS –Mnemonic- Grossly Hemolyzed (FHS)

The following tests should be rejected and deleted and a new sample requested. The Gross Hemolyzed mnemonic can be used to further clarify.

Specimen is GROSSLY HEMOLYZED and the following tests cannot be completed. Recollection of sample is indicated. The following tests may be increased due to hemolysis: ALT, Ammonia, Amylase, AST, Beta-Hydroxybutyrate, CK, Ferritin, Folate, Iron, LDH, Lactate, Lipase, Lithium, Magnesium, Phosphorus, Potassium, Salicylate, Total Bilirubin, Triglyceride, Vitamin B12, Vitamin D25(OH) and Uric Acid. Alkaline Phosphatase, Direct Bilirubin and GGT may be decreased.

LIPEMIA:

***Note: Lipemia –TP (Total Protein) DXC 600 (cartridge- TP) and DXC 800 (modular- TPm) are different methods with different lipemia sensitivity:**

Total Protein Method	Lipemia Level Affected
DXC 600 – TP cartridge test	Index of 10 – Gross Lipemia
DXC 800 – TPm module test	Index of 4 – Moderate Lipemia

Note: Ammonia and CRP- cannot be ultracentrifuged or airfuged, enter a chartable comment “Unable to result Ammonia due to lipemic interference.” Cancel or credit test.

SLIGHT LIPEMIA –Mnemonic- Slightly Lipemic (FHS)

Specimen is SLIGHTLY LIPEMIC and test results may be affected

MODERATE LIPEMIA –Mnemonic- Moderately Lipemic (FHS)

Specimen is MODERATELY LIPEMIC. Results may be affected.

MARKED LIPEMIA –Mnemonic- Markedly Lipemic (FHS)

Specimen is MARKEDLY LIPEMIC. Results may be affected.

GROSS LIPEMIA –Mnemonic- Grossly Lipemic (FHS)

Specimen is GROSSLY LIPEMIC. Results may be affected.

RELATED DOCUMENTS

M-F-CH-1940

[DXC 600 \(AMR\) Analytical Measurement Range](#)

J-F-CH-1940	DXC 800 (AMR) Analytical Measurement Range
	Handling Lipemic Chemistry Samples

ADDITIONAL INFORMATION

- For more detailed information on DXC 600/800 and DXI systems, refer to appropriate work instruction.
- *CRP- lipemia index ≥ 2 —send out to reference lab
- For lipemic samples with indices ≥ 4 , use Stat-Spin, Air-fuge or Ultracentrifuge, see analyte specific procedure and/or Handling Lipemic Chemistry Samples procedure. Add chartable comment .AIRF "Specimen lipemic. Analysis was performed on clarified specimen, except for lipids."

Attachments: No Attachments

Approval Signatures

Approver	Date
Arlene Brennan: Administrative Coordinator	04/2018
Adam Saenz: MD, Medical Director	04/2018
Shane Anderson: MD, Medical Director	04/2018
Linda Burkhardt: MD, Medical Director	04/2018
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Brian Folz: Medical Director	04/2018
Arlene Brennan: Administrative Coordinator	04/2018
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