Warde Medical Laboratory

TEST DIRECTORY UPDATE

IMMEDIATE UPDATE – NOVEMBER 2024

Update Notes

ATTENTION: Due to a manufacturer reagent shortage, the test replacement of CTX with BCTX will **NOT** take place on November 19th. A new effective date will be announced in a future update.

Update Summary

Update Existing Test	11/5/2024	GRH - "Gonadotropin-Releasing Hormone"
Inactivate Test With Replacement	11/12/2024	ZPPI - "Lead-ZPP Industrial" replaced by PBINP - "Lead, Industrial Exposure Panel, Adults"

Update Existing Test

Effective Date	11/5/2024
Name	Gonadotropin-Releasing Hormone
Code	GRH
Interface Order Code	3805300
Legacy Code	GRHM
Notes	Update to turnaround time and performing laboratory.
Required Testing Changes	
Turnaround Time	9 - 11 days
Performing Laboratory	Inter Science Institute

Warde Medical Laboratory

TEST DIRECTORY UPDATE

IMMEDIATE UPDATE – NOVEMBER 2024

Inactivate Test With Replacement	
Effective Date	11/12/2024
Inactivated Test	
Name	Lead-ZPP Industrial
Code	ZPPI
Legacy Code	LAZPPIE
Interface Order Code	1001560
Replacement Test	
Name	Lead, Industrial Exposure Panel, Adults
Code	PBINP
CPT Code(s)	83655; 84202
Notes	New York DOH Approval Status: Yes
Specimen Requirements	
Specimen Required	*Patient Preparation*: Collect from patient aged 16 years or older. *Collect*: Dark blue (K2EDTA) *Specimen Preparation*: Send 3.0 mL whole blood. A completed lead requisition must accompany sample. *Minimum Volume*: 0.5 mL *Transport Temperature*: Refrigerated
Alternate Specimen	Whole blood: Dark blue (NaHep), tan (K2EDTA)
Rejection Criteria	Serum. Specimens collected in tubes other than Dark blue(K2EDTA), Dark blue (NaHep), or tan (K2EDTA). Hemolyzed, clotted specimens.
Stability	Room temperature: 30 hours Refrigerated: 5 weeks Frozen: Unacceptable
Performing Information	
Methodology	Quantitative Inductively Coupled Plasma-Mass Spectrometry (ICP-MS)/Hematofluorometry
Reference Range	Components — Reference Interval Lead, Industrial, Whole Blood — Less than or equal to 4.9 µg/dL Zinc Protoporphyrin, Blood — 0-40 µg/dL Zinc Protoporphyrin (ZPP) Whole Blood Ratio — 0-69 µmol ZPP/mol heme
Performed Days	Sunday - Saturday
Turnaround Time	3 - 7 days
Performing Laboratory	ARUP Reference Laboratory
Interface Information	
Legacy Code	PBINP
Interface Order Code	3600489

Result Code	Name	LOINC Code	AOE/Prompt
3600491	Lead, Industrial, Whole Blood	77307-7	No
3600492	Zinc Protoporphyrin (ZPP), WholeBld Ratio	29763-0	No
3600493	Zinc Protoporphyrin, Blood	2895-1	No

Warde Medical Laboratory

LABORATORY REPORT

Example Client, XYZ123
1234 Warde Road
Ann Arbor MI 48108

EXAMPLE, REPORT W
WX0000003826 F 12/05/1988 35 Y

Referral Testing

Collected: 11/01/2024 13:39 Received: 11/01/2024 13:39

Test Name	Result	Flag	Ref-Ranges	Units	Site
Lead, Industrial Exposure Panel, Adults					
Lead, Industrial, Whole Blood	**7.0**	**H**	<=4.9	ug/dL	ARRL

INTERPRETIVE INFORMATION: Lead, Industrial Exposure Panel, Adults
Analysis performed by Inductively Coupled Plasma-Mass Spectrometry (ICP-MS).

Elevated results may be due to skin or collection-related contamination, including the use of a noncertified lead-free collection/transport tube. If contamination concerns exist due to elevated levels of blood lead, confirmation with a second specimen collected in a certified lead-free tube is recommended.

Reference interval and interpretive comments are based on the CDC's "Childhood Lead Poisoning Prevention: Recommended Actions Based on Blood Lead Level" and the "Adult Blood Lead Epidemiology and Surveillance: Reference Blood Lead Levels (BLLs) for Adults in the U.S." Thresholds and time intervals for retesting, medical evaluation, and response vary by state and regulatory body. Actions described by OSHA in 1978 and finalized in 1983 are shown below. Contact your State Department of Health and/or applicable regulatory agency for specific guidance on medical management recommendations.

Concentration	Comment
5-19.9 ug/dL	Medical removal is recommended for pregnant women or those who are trying or may become pregnant. Adverse health effects are possible. Reduced lead exposure and increased blood lead monitoring are recommended.
20-69.9 ug/dL	Adverse health effects are indicated. Medical removal from lead exposure is required by OSHA if blood lead level exceeds 50 ug/dL. Prompt medical evaluation is recommended.
Greater than 69.9 ug/dL	Critical. Immediate medical evaluation is recommended. Consider chelation therapy when symptoms of lead toxicity are present.

LAB: L - LOW, H - HIGH, AB - ABNORMAL, C - CRITICAL, . - NOT TESTED

G701000002
WX0000003826
Printed D&T: 11/01/24 13:41

Ordered By: KAJAL SITWALA, MD, PHD
WX00000000002353

Kajal V. Sitwala, MD, PhD - Medical Director
Form: MM RL1

Example Client, XYZ123
1234 Warde Road
Ann Arbor MI 48108

EXAMPLE, REPORT W
WX0000003826 F 12/05/1988 35 Y

Referral Testing

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Test Name	Result	Flag	Ref-Ranges	Units	Site

"Occupational Safety and Health Standards: Lead (1983). 29 CFR Part 1910.1025 App C"

Action required for workers with Elevated Lead Values OSHA, Occupational Exposure to Lead, 1978

No. of Tests	Lead	Action Required
1	Greater than or equal to 40.0 ug/dL	Notification of worker in writing; medical examination of worker and consultation.
3 (average)	Greater than or equal to 50.0 ug/dL	Removal of worker from job with potential lead exposure.
1	Greater than or equal to 60.0 ug/dL	Removal of worker from job with potential lead exposure.
2	Less than 40.0 ug/dL	Reinstatement of worker in job with potential lead exposure is based upon symptoms and medical evaluation.

OSHA requirements in effect since 1978 call for the measurement of whole blood lead and zinc protoporphyrins (ZPP) (NCCLS document C42-A, Nov. 1996) to evaluate the occupational exposure to lead. OSHA requires ZPP whole blood testing to be reported in units of ug/dL. For adults, conversion of ZPP units of ug/dL whole blood assumes a hematocrit of 45 percent. Conversion factor: umol/mol heme x 0.584= ug/dL.

This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the U.S. Food and Drug Administration. This test was performed in a CLIA-certified laboratory and is intended for clinical purposes.

Zinc Protoporphyrin (ZPP), WholeBld Ratio	**71**	**H**	0-69	umolZPP/molHem	ARRL

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Ann Arbor MI 48108

EXAMPLE, REPORT W
WX0000003826 F 12/05/1988 35 Y

Referral Testing

Collected: 11/01/2024 13:39 Received: 11/01/2024 13:39

Test Name	Result	Flag	Ref-Ranges	Units	Site
INTERPRETIVE INFORMATION: Zinc Protoporphyrin (ZPP) WholeBld Ratio This test was performed on the ProtoFluor Z system manufactured by Helena Laboratories. The result is not comparable to results obtained from extraction-based methods or from the AVIV ZPP system. The test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the U.S. Food and Drug Administration. This test was performed in a CLIA-certified laboratory and is intended for clinical purposes.					
Zinc Protoporphyrin, Blood	**41**	**H**	0-40	ug/dL	ARRL
INTERPRETIVE INFORMATION: Zinc Protoporphyrin, Blood For occupational exposure to lead, OSHA requires ZPP whole blood concentration to be reported in units of ug/dL. For adults, conversion of ZPP to units of ug/dL assumes a hematocrit of 45%. This test was performed on the ProtoFluor Z system manufactured by Helena Laboratories. The result is not comparable to results obtained from extraction-based methods or from the AVIV ZPP system. This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the U.S. Food and Drug Administration. This test was performed in a CLIA-certified laboratory and is intended for clinical purposes. Performed By: ARUP Laboratories 500 Chipeta Way Salt Lake City, UT 84108 Laboratory Director: Jonathan R. Genzen, MD, PhD CLIA Number: 46D0523979					

Reported Date: 11/01/2024 13:41 PBINP

Performing Site:
ARRL: ARUP REFERENCE LAB 500 Chipeta Way Salt Lake City UT 841081221

LAB: L - LOW, H - HIGH, AB - ABNORMAL, C - CRITICAL, . - NOT TESTED

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WX0000003826
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WX00000000002353

Kajal V. Sitwala, MD, PhD - Medical Director
Form: MM RL1