

Update Notes

Due to nationwide shortage of some Dark blue EDTA phlebotomy tubes specified for trace element testing, Warde Laboratory is currently accepting Lavender EDTA tubes.

Update Summary

| | | |
|--|-----------|---|
| Announcement | 6/1/2022 | Temporary Performing Location |
| Update Existing Test | 6/28/2022 | 11DCR - "11-Deoxycortisol" |
| Update Existing Test | 6/28/2022 | 17OPC - "17-Hydroxyprogesterone, Child" |
| Update Existing Test | 6/28/2022 | 21HYD - "21-Hydroxylase Ab, Serum" |
| Update Existing Test | 6/27/2022 | A1AGQ - "Alpha-1-Antitrypsin Genotype" |
| Update Existing Test | 6/28/2022 | ADACT - "Adalimumab Activity and Neutralizing Antibody" |
| Update Existing Test | 6/28/2022 | ADDPF - "Adenosine Deaminase, Pericardial Fluid" |
| Update Existing Test | 6/27/2022 | AGDEL - "Alpha-globin Gene Del or Dup" |
| Update Existing Test | 6/28/2022 | CARFT - "Carnitine Free and Total" |
| Update Existing Test | 6/28/2022 | COXBA - "Coxsackie B Virus Abs" |
| Update Existing Test | 6/28/2022 | HTL12 - "HTLV-1 and 2 (EIA) with Reflex" |
| Update Existing Test | 6/28/2022 | INSAB - "Insulin Antibody" |
| Update Existing Test | 6/1/2022 | LEAD - "Lead" |
| Update Existing Test | 6/1/2022 | MVHIS - "Histoplasma Quantitative Antigen EIA" |
| Update Existing Test | 6/28/2022 | PETHB - "Phosphatidylethanol (Peth), Whole Blood" |
| Update Existing Test | 6/28/2022 | PSE - "Pseudocholinesterase" |
| Update Existing Test | 6/28/2022 | THY - "Thyroglobulin and Anti-Thyroglobulin Antibody Panel" |
| Update Existing Test | 6/28/2022 | UCRET - "Creatine, Urine, 24 Hour" |
| Update Existing Test | 6/28/2022 | VITD - "25-hydroxy Vitamin D" |
| Update Existing Test | 6/1/2022 | ZPPI - "Lead-ZPP Industrial" |
| Inactivate Test Without Replacement | 6/1/2022 | GLAMB - "Giardia lamblia IgG Ab" |

Announcement

Due to reagent shortage, Quest SJC will temporarily direct all [HPVRA \[3400161\] - HPV RNA, Low and High Risk, ISH](#) to Mayo Clinics. Currently there will be no change to the test code build. The expected delivery of reagent is September 2022.

| Update Existing Test | |
|--------------------------|---|
| Effective Date | 6/28/2022 |
| Name | 11-Deoxycortisol |
| Code | 11DCR |
| Interface Order Code | 3687960 |
| Legacy Code | 11DCOR |
| Notes | Updates to alternate specimen. |
| Required Testing Changes | |
| Alternate Specimen | Plasma: Lavender EDTA or green sodium heparin, lithium heparin Serum: Red top |

| Update Existing Test | |
|--------------------------|---|
| Effective Date | 6/28/2022 |
| Name | 17-HYDROXYPROGESTERONE QUANTITATIVE, CHILD |
| Code | 17OPC |
| Interface Order Code | 3670200 |
| Legacy Code | 17OPROGARP |
| Notes | Updates to alternate specimen. |
| Required Testing Changes | |
| Alternate Specimen | Plasma: Lavender EDTA, Green sodium heparin or lithium heparin Serum: Red top |

| Update Existing Test | | | |
|--------------------------|---|------------|-------------------------|
| Effective Date | 6/28/2022 | | |
| Name | 21-Hydroxylase Ab, Serum | | |
| Code | 21HYD | | |
| Interface Order Code | 3687160 | | |
| Legacy Code | 21HYDAB | | |
| Notes | Update to rejection criteria and LOINC. | | |
| Required Testing Changes | | | |
| Rejection Criteria | Grossly hemolyzed or lipemic | | |
| Result Code | Name | LOINC Code | AOE/Prompt ² |
| 3687160 | 21-Hydroxylase Ab, Serum | 85363-0 | No |

| Update Existing Test | |
|--------------------------|---|
| Effective Date | 6/27/2022 |
| Name | Alpha-1-Antitrypsin Genotype |
| Code | A1AGQ |
| Interface Order Code | 3426040 |
| Legacy Code | A1AGENQ |
| Notes | Updates to patient prep, specimen preparation, alternate specimens, and stability. |
| Required Testing Changes | |
| Specimen Required | <p><i>Patient Preparation:</i> This test requires a physician attestation form that patient consent has been received if the ordering medical facility is located in AK, DE, FL, GA, IA, MA, MN, NV, NJ, OR, SD or VT or test is performed in MA.</p> <p><i>Collect:</i> Lavender EDTA</p> <p><i>Specimen Preparation:</i> Send 5.0 mL whole blood. Do not transfer to other containers. Specimen stability is crucial. Store and ship at room temperature.</p> <p><i>Minimum Volume:</i> 2.0 mL</p> <p><i>Transport Temperature:</i> Room temperature only</p> |
| Alternate Specimen | Whole blood: ACD A, ACD B, sodium heparin |
| Stability | Room temperature: 8 days Refrigerated: Unacceptable Frozen: Unacceptable |

| Update Existing Test | | | |
|--------------------------|--|------------|-------------------------|
| Effective Date | 6/28/2022 | | |
| Name | Adalimumab Activity and Neutralizing Antibody | | |
| Code | ADACT | | |
| Interface Order Code | 3618440 | | |
| Legacy Code | ADACT | | |
| Notes | Updates to specimen preparation, performed days and LOINC. | | |
| Required Testing Changes | | | |
| Specimen Required | Specimen Preparation: Centrifuge, separate serum cells as soon as possible or within 2 hours and send 1.0 mL serum in a screw capped plastic vial. | | |
| Performed Days | Monday - Sunday | | |
| Result Code | Name | LOINC Code | AOE/Prompt ² |
| 3618450 | Adalimumab Activity | 74117-3 | No |
| 3618460 | Adalimumab Neutralizing Antibody | 92765-7 | No |
| 3618470 | EER Adalimumab | 11526-1 | No |

| Update Existing Test | |
|--------------------------|--|
| Effective Date | 6/28/2022 |
| Name | Adenosine Deaminase, Pericardial Fluid |
| Code | ADDPF |
| Interface Order Code | 3600193 |
| Legacy Code | ADDPF |
| Notes | Update to rejection criteria. |
| Required Testing Changes | |
| Rejection Criteria | Whole blood, bronchoalveolar lavage, turbid specimens |

| Update Existing Test | |
|--------------------------|--|
| Effective Date | 6/27/2022 |
| Name | Alpha-globin Gene Del or Dup |
| Code | AGDEL |
| Interface Order Code | 3426420 |
| Legacy Code | AGDELDUP |
| Notes | Updates to patient prep, specimen preparation, alternate specimens, and performed days. |
| Required Testing Changes | |
| Specimen Required | <p><i>Patient Preparation:</i> This test requires a physician attestation form that patient consent has been received if the ordering medical facility is located in AK, DE, FL, GA, IA, MA, MN, NV, NJ, OR, SD or VT or test is performed in MA.</p> <p><i>Collect:</i> Lavender EDTA</p> <p><i>Specimen Preparation:</i> Send 5.0 mL whole blood.</p> <p><i>Minimum Volume:</i> 3.0 mL</p> <p><i>Transport Temperature:</i> Room temperature</p> |
| Alternate Specimen | <p>Whole blood: yellow ACD B, green sodium heparin Amniotic fluid (20.0 mL; 5.0 mL minimum)</p> <p>Cultured Cells</p> <p>Chorionic villus sampling (20 mg; 10 mg minimum)</p> |
| Stability | <p><i>Whole Blood:</i> Room temperature: 30 days Refrigerated: 30 days Frozen: 30 days</p> <p><i>Other specimens:</i> Room temperature: 48 hours Refrigerated: Unacceptable Frozen: Unacceptable</p> |
| Performed Days | Tuesday |

| Update Existing Test | | | |
|--------------------------|---|----------------|-------------------------|
| Effective Date | 6/28/2022 | | |
| Name | Carnitine Free and Total | | |
| Code | CARFT | | |
| Interface Order Code | 3607300 | | |
| Legacy Code | CARNARP | | |
| Notes | Updates to specimen collected and LOINC. | | |
| Required Testing Changes | | | |
| Specimen Required | <p><i>Collect:</i> Green sodium heparin or lithium.</p> <p><i>Specimen Preparation:</i> Centrifuge, separate plasma within 2 hours and send 0.5 mL plasma frozen within 2 hours in a screw capped plastic vial. CRITICAL FROZEN.</p> <p><i>Minimum Volume:</i> 0.2 mL</p> <p><i>Transport Temperature:</i> Critical frozen</p> | | |
| Result Code | Name | LOINC Code | AOE/Prompt ² |
| 3607310 | Carnitine, Free, Serum/Plasma | 14286-9 | No |
| 3607320 | Carnitine, Total, Serum/Plasma | 14288-5 | No |
| 3607330 | Carnitine, Esterified, Serum/Plasma | 19074-4 | No |
| 3607335 | Carnitine E/F Ratio, Serum/Plasma | 40869-0 | No |

| Update Existing Test | |
|--------------------------|---|
| Effective Date | 6/28/2022 |
| Name | Coxsackie B Virus Abs |
| Code | COXBA |
| Interface Order Code | 3671705 |
| Legacy Code | COXBARP |
| Notes | Updates to rejection criteria. |
| Required Testing Changes | |
| Rejection Criteria | Plasma specimens, CSF, hemolyzed/lipemic specimens |

| Update Existing Test | |
|--------------------------|--|
| Effective Date | 6/28/2022 |
| Name | HTLV-1 and 2 (EIA) with Reflex |
| Code | HTL12 |
| Interface Order Code | 3503620 |
| Legacy Code | HTLV12 |
| Notes | Updates to alternate specimen. |
| Required Testing Changes | |
| Alternate Specimen | Plasma: Lavender EDTA, green sodium or lithium heparin, Light blue (sodium citrate) Serum: Red top |

| Update Existing Test | | | |
|--------------------------|--|------------|-------------------------|
| Effective Date | 6/28/2022 | | |
| Name | Insulin Antibody | | |
| Code | INSAB | | |
| Interface Order Code | 3620680 | | |
| Legacy Code | INSABARP | | |
| Notes | Updates to rejection criteria and LOINC. | | |
| Required Testing Changes | | | |
| Rejection Criteria | Plasma, hemolyzed or lipemic | | |
| Result Code | Name | LOINC Code | AOE/Prompt ² |
| 3620680 | Insulin Antibody | 56546-5 | No |

| Update Existing Test | | | | | |
|--|--|-----------------------|--------------------|-------------------------|-----------------------|
| Effective Date | 6/1/2022 | | | | |
| Name | Lead | | | | |
| Code | LEAD | | | | |
| Interface Order Code | 1000370 | | | | |
| Legacy Code | LEAD | | | | |
| Notes | Updates to reference range and message. Please see example reports. | | | | |
| Required Testing Changes | | | | | |
| Reference Range | <table><tr><td>COMPONENT</td><td>REFERENCE INTERVAL</td></tr><tr><td>Lead, Whole Blood</td><td>< 6 years: <3.5 µg/dL</td></tr></table> | COMPONENT | REFERENCE INTERVAL | Lead, Whole Blood | < 6 years: <3.5 µg/dL |
| | COMPONENT | REFERENCE INTERVAL | | | |
| | Lead, Whole Blood | < 6 years: <3.5 µg/dL | | | |
| | <p>In 2021, CDC revised the blood lead reference level for children ages 1-5 years to less than 3.5 ug/dL. Children with levels at or above this value represent those at the top 2.5% of blood levels.</p> | | | | |
| | <p>CDC recommendations for clinical follow up and lead level monitoring may vary depending on initial measured lead level and the child's age. Local and state health departments also may have different recommendations for monitoring and clinical follow up. Please consult your local or state health department, or the CDC's website regarding monitoring of lead levels in children:</p> | | | | |
| <p>https://www.cdc.gov/nceh/lead/acclpp/actions_blls.html</p> | | | | | |
| <table><tr><td>COMPONENT</td><td>REFERENCE INTERVAL</td></tr><tr><td>Lead, Whole Blood</td><td>>= 6 years: < 5.0 µg/dL</td></tr></table> | COMPONENT | REFERENCE INTERVAL | Lead, Whole Blood | >= 6 years: < 5.0 µg/dL | |
| COMPONENT | REFERENCE INTERVAL | | | | |
| Lead, Whole Blood | >= 6 years: < 5.0 µg/dL | | | | |
| | <p>CDC recommendations for clinical follow up and lead level monitoring may vary depending on initial measured lead level and the patient's age. Local and state health departments also may have different recommendations for monitoring and clinical follow up. Please consult your local or state health department, or the CDC's website regarding monitoring of lead levels in adults:</p> | | | | |
| | <p>https://www.cdc.gov/niosh/topics/ables/pdfs/</p> | | | | |



LABORATORY REPORT

Example Client, XYZ123
1234 Warde Road
Ann Arbor MI 48108

EXAMPLE, REPORT
WX0000003735 M 04/12/2022

Collected: 05/26/2022 17:24

Received: 05/26/2022 17:24

| <u>Test Name</u> | <u>Result</u> | <u>Flag</u> | <u>Ref-Ranges</u> | <u>Units</u> | <u>Site</u> |
|------------------|---------------|-------------|-------------------|--------------|-------------|
| Lead | 3.6 | H | <3.5 | ug/dL | WMRL |

In 2021, CDC revised the blood lead reference level for children ages 1-5 years to less than 3.5 ug/dL. Children with levels at or above this value represent those at the top 2.5% of blood levels.

CDC recommendations for clinical follow up and lead level monitoring may vary depending on initial measured lead level and the child's age. Local and state health departments also may have different recommendations for monitoring and clinical follow up. Please consult your local or state health department, or the CDC's website regarding monitoring of lead levels in children:

https://www.cdc.gov/nceh/lead/acclpp/actions_blls.html

Methodology used in analysis is atomic absorption.

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

The Blood Lead test was developed and the performance characteristics determined by Warde Medical Laboratory. It has not been cleared or approved by the FDA. The laboratory is regulated under CLIA as qualified to perform high-complexity testing. This test is used for patient testing purposes. It should not be regarded as investigational or for research.

Performing Site:

WMRL: Warde Medical Laboratory 300 West Textile Road Ann Arbor MI 48108 (800)876-6522

LAB: L - LOW, H - HIGH, AB - ABNORMAL, C - CRITICAL,

D726000019
WX0000003735

Ordered By: CLIENT CLIENT,
WX0000000002250

WMB-22-465
PAGE 1 OF 1

Printed D&T: 5/26/2022 5:26 PM

William G. Finn, M.D. - Medical Director



LABORATORY REPORT

Example Client, XYZ123
1234 Warde Road
Ann Arbor MI 48108

EXAMPLE, REPORT

WX0000003039 M 12/05/1988

Collected: 05/26/2022 17:24

Received: 05/26/2022 17:24

| <u>Test Name</u> | <u>Result</u> | <u>Flag</u> | <u>Ref-Ranges</u> | <u>Units</u> | <u>Site</u> |
|------------------|---------------|-------------|-------------------|--------------|-------------|
| Lead | 5.1 | H | <5.0 | ug/dL | WMRL |

CDC recommendations for clinical follow up and lead level monitoring may vary depending on initial measured lead level and the patient's age. Local and state health departments also may have different recommendations for monitoring and clinical follow up. Please consult your local or state health department, or the CDC's website regarding monitoring of lead levels in adults:

<https://www.cdc.gov/niosh/topics/ables/pdfs/>

Methodology used in analysis is atomic absorption.

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

The Blood Lead test was developed and the performance characteristics determined by Warde Medical Laboratory. It has not been cleared or approved by the FDA. The laboratory is regulated under CLIA as qualified to perform high-complexity testing. This test is used for patient testing purposes. It should not be regarded as investigational or for research.

Performing Site:

WMRL: Warde Medical Laboratory 300 West Textile Road Ann Arbor MI 48108 (800)876-6522

LAB: L - LOW, H - HIGH, AB - ABNORMAL, C - CRITICAL,

D726000020

Ordered By: CLIENT CLIENT,

WMB-22-466

WX0000003039

WX0000000001595

PAGE 1 OF 1

Printed D&T: 5/26/2022 5:27 PM

William G. Finn, M.D. - Medical Director

| Update Existing Test | |
|--------------------------|---|
| Effective Date | 6/1/2022 |
| Name | Histoplasma Quantitative Antigen EIA |
| Code | MVHIS |
| Interface Order Code | 3432600 |
| Legacy Code | MVHIS |
| Notes | Updates to specimen preparation, alternate specimens, and rejection criteria. |
| Required Testing Changes | |
| Specimen Required | <p><i>Patient Preparation:</i> List all antifungal agents patient is receiving.</p> <p><i>Collect:</i> Random urine</p> <p><i>Specimen Preparation:</i> Send 0.5 mL urine in a sterile screw capped plastic container.</p> <p><i>Minimum Volume:</i> 0.5 mL</p> <p><i>Transport Temperature:</i> Refrigerated</p> |
| Alternate Specimen | <p>Serum: Collect serum in red top or serum separator tube (SST), allow 30 min to clot, centrifuge and send 1.2 mL in a plastic screw capped vial.</p> <p>Plasma: Collect plasma in Lavender EDTA, green sodium heparin or 3.2% sodium citrate light blue top tube. Centrifuge for 15 minutes and transfer 0.8 mL plasma to a plastic screw capped vial.</p> <p>CSF/BAL/Other Body fluid: send 0.5 mL in a sterile screw capped container.</p> |
| Rejection Criteria | Tissue, sputum, bronchial brushings, stool, fine needle aspiration (FNA) , biopsy, tracheal or bone marrow aspirate. Specimens too viscous to pipette, samples in transport media; fixative or isolator tube |

| Update Existing Test | | | |
|--------------------------|--|------------|-------------------------|
| Effective Date | 6/28/2022 | | |
| Name | Phosphatidylethanol (Peth), Whole Blood | | |
| Code | PETHB | | |
| Interface Order Code | 3600171 | | |
| Legacy Code | | | |
| Notes | Updates to alternate specimen and LOINC. | | |
| Required Testing Changes | | | |
| Alternate Specimen | Gray top, green (lithium heparin) | | |
| Result Code | Name | LOINC Code | AOE/Prompt ² |
| 3600172 | PEth 16:0/18.1 (POPEth) | 97607-6 | No |
| 3600173 | PEth 16:0/18.2 (PLPEth) | 97606-8 | No |

| Update Existing Test | |
|--------------------------|--|
| Effective Date | 6/28/2022 |
| Name | Pseudocholinesterase |
| Code | PSE |
| Interface Order Code | 3685280 |
| Legacy Code | PSEAR |
| Notes | Updates to accepted alternate specimens. |
| Required Testing Changes | |
| Alternate Specimen | Plasma: Lavender EDTA |

| Update Existing Test | |
|--------------------------|--|
| Effective Date | 6/28/2022 |
| Name | Thyroglobulin and Anti-Thyroglobulin Antibody Panel |
| Code | THY |
| Interface Order Code | 3007960 |
| Legacy Code | THY |
| Notes | Updates to reference range and canned message. Please see attached example report. |
| Required Testing Changes | |
| Reference Range | Thyroglobulin Antibodies: <4.0 IU/mL Thyroglobulin: Intact thyroid: 1.6-50.0 ng/mL Athyrotic, post-thyroidectomy (tumor marker): <0.1 ng/mL |



LABORATORY REPORT

Example Client, XYZ123
1234 Warde Road
Ann Arbor MI 48108

EXAMPLE, REPORT

WX0000003039 M 12/05/1988 33 Y

Immunochemistry

Collected: 04/29/2022 07:22

Received: 04/29/2022 07:22

| Test Name | Result | Flag | Ref-Ranges | Units | Site |
|--|--------|------|------------|-------|------|
| Thyroglobulin and Anti-Thyroglobulin Antibody Panel | | | | | |
| Anti-thyroglobulin Antibody | 23 | H | <4 | IU/mL | WMRL |

According to the reagent manufacturer, consumption of biotin supplements, or multivitamins containing biotin, may interfere with the results of this assay. For individuals taking biotin-containing supplements, testing at least three days after cessation of supplement consumption is recommended.

| | | | | | |
|---------------|------|--|----------|-------|------|
| Thyroglobulin | 44.0 | | SeeBelow | ng/mL | WMRL |
|---------------|------|--|----------|-------|------|

Thyroglobulin Reference Range:
Intact thyroid: 1.6-50.0 ng/mL
Athyrotic, post-thyroidectomy (tumor marker): <0.1 ng/mL

Thyroglobulin antibodies can interfere with the determination of thyroglobulin. If the specimen contains thyroglobulin antibodies, please interpret the thyroglobulin result with caution.

The Beckman Access DXI chemiluminescent immunoassay is used. Results obtained with different assay methods or kits cannot be used interchangeably. Results cannot be interpreted as absolute evidence of the presence or absence of malignant disease.

According to the reagent manufacturer, consumption of biotin supplements, or multivitamins containing biotin, may interfere with the results of this assay. For individuals taking biotin-containing supplements, testing at least three days after cessation of supplement consumption is recommended.

Performing Site:

WMRL: WARDE MEDICAL LABORATORY 300 West Textile Road Ann Arbor MI 48108

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

D629000000
WX0000003039
Printed D&T: 04/29/22 07:23

Ordered By: CLIENT CLIENT
WX00000000001595

William G. Finn, M.D. - Medical Director
Form: MM RL1
PAGE 1 OF 1

| Update Existing Test | | | |
|--------------------------|---|------------|-------------------------|
| Effective Date | 6/28/2022 | | |
| Name | Creatine, Urine, 24 Hour | | |
| Code | UCRET | | |
| Interface Order Code | 3424880 | | |
| Legacy Code | UCRETINQ | | |
| Notes | Updates to stability and LOINC. | | |
| Required Testing Changes | | | |
| Stability | Room temperature: 6 hours Refrigerated: 24 hours Frozen: 6 months | | |
| Result Code | Name | LOINC Code | AOE/Prompt ² |
| 3424900 | Total Volume | 19153-6 | Yes |
| 3424905 | Hours Collected | 30211-7 | Yes |
| 3424930 | Creatinine, Urine | 14683-7 | No |
| 3424915 | Creatine, Urine | 34275-8 | No |
| 3424920 | Creatine, 24-Hour Urine | 2150-1 | No |

| Update Existing Test | | | |
|--------------------------|---|---------------|-------------------------|
| Effective Date | 6/28/2022 | | |
| Name | 25-hydroxy Vitamin D | | |
| Code | VITD | | |
| Interface Order Code | 1007180 | | |
| Legacy Code | VITD25H | | |
| Notes | Updates to specimen preparation, stability, methodology, reference range, performing days, TAT and performing location. | | |
| Required Testing Changes | | | |
| Specimen Required | <p><i>Patient Preparation:</i> Fasting preferred, but not required.</p> <p><i>Collect:</i> Serum separator tube (SST)</p> <p><i>Specimen Preparation:</i> Centrifuge, separate serum from cells and send 0.8 mL serum in screw capped plastic vial.</p> <p><i>Minimum Volume:</i> 0.5 mL</p> <p><i>Transport Temperature:</i> Refrigerated</p> | | |
| Stability | Room temperature: 7 days Refrigerated: 7 days Frozen: 28 days | | |
| Performed Days | Sunday - Saturday | | |
| Performing Location | Quest SJC | | |
| Turnaround Time | 3 - 5 days | | |
| Result Code | Name | LOINC Code | AOE/Prompt ² |
| 1007180 | 25-hydroxy Vitamin D | 1989-3 | No |



LABORATORY REPORT

Example Client, XYZ123
1234 Warde Road
Ann Arbor MI 48108

EXAMPLE, REPORT

WX0000003039 M 12/05/1988 33 Y

Immunochemistry

Collected: 05/26/2022 17:17

Received: 05/26/2022 17:17

| Test Name | Result | Flag | Ref-Ranges | Units | Site |
|----------------------|--------|------|------------|-------|------|
| 25-hydroxy Vitamin D | 45 | | 30-100 | ng/mL | QDRL |

Vitamin D Status 25-OH Vitamin D:

Deficiency: <20 ng/mL

Insufficiency: 20 - 29 ng/mL

Optimal: > or = 30 ng/mL

For 25-OH Vitamin D testing on patients on D2-supplementation and patients for whom quantitation of D2 and D3 fractions is required, the QuestAssureD(TM) 25-OH VIT D, (D2,D3), LC/MS/MS is recommended: order code 92888 (patients >2yrs).
See Note 1

Note 1

For additional information, please refer to <http://education.QuestDiagnostics.com/faq/FAQ199>
(This link is being provided for informational/educational purposes only.)

TEST PERFORMED AT:
QUEST DIAGNOSTICS NICHOLS VALENCIA
27027 TOURNEY ROAD VALENCIA, CA 91355-5386
THOMAS MCDONALD,MD

Performing Site:

QDRL: QUEST DIAGNOSTICS REFERENCE LAB VALENCIA 27027 Tourney Road Valencia CA 91355

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

D726000014
WX0000003039

Printed D&T: 05/26/22 17:18

Ordered By: CLIENT CLIENT
WX00000000001595

William G. Finn, M.D. - Medical Director
Form: MM RL1
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| Update Existing Test | |
|--------------------------|--|
| Effective Date | 6/1/2022 |
| Name | Lead-ZPP Industrial |
| Code | ZPPI |
| Interface Order Code | 1001560 |
| Legacy Code | LAZPPIE |
| Notes | Update to reference range and canned message . |
| Required Testing Changes | |
| Reference Range | <p>COMPONENTS REFERENCE INTERVAL</p> <p>Lead, Whole Blood < 6 years: <3.5 µg/dL</p> <p>Lead, Whole Blood >= 6 years: <5.0 µg/dL</p> <p>Zinc Protoporphyrin (ZPP)</p> <p>Whole Blood: 0 - 69 µmol/mol heme</p> <p>Zinc Protoporphyrin (ZPP)</p> <p>Whole Blood: 0 - 40 µg/dL</p> <p>These results should be interpreted in the context of OSHA, CDC, and local and state occupational health requirements. Additional information is available through the following link:</p> <p>https://www.cdc.gov/niosh/topics/ables/description.html</p> <p>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 hemoglobin level of 15 g/dL.</p> <p>Methodology used in lead analysis is atomic absorption.</p> <p>Methodology used for ZPP is Protofluor Z system manufactured by Helena Laboratories. This test has been modified from the manufacturer's instructions.</p> <p>Elevated results may be due to skin or collection-related contamination, including the use of a noncertified lead-free tube, or transfer of sample into a noncertified lead-free tube. If contamination concerns exist due to elevated levels of blood lead, confirmation with a venous specimen collected in a certified lead-free tube is recommended.</p> <p>The Blood Lead test was developed and the performance characteristics determined by Warde Medical Laboratory. It has not been cleared or approved by the FDA. The laboratory is regulated under CLIA as qualified to perform high-complexity testing. This test is used for patient testing purposes. It should not be regarded as investigational or for research.</p> |
| | |



LABORATORY REPORT

Example Client, XYZ123
1234 Warde Road
Ann Arbor MI 48108

EXAMPLE, REPORT

WX0000003735 M 04/12/2022

Collected: 05/26/2022 17:21

Received: 05/26/2022 17:21

Lead-ZPP Industrial

| <u>Test Name</u> | <u>Result</u> | <u>Flag</u> | <u>Ref-Ranges</u> | <u>Units</u> | <u>Site</u> |
|-------------------|---------------|-------------|-------------------|---------------|-------------|
| Lead | <0.5 | | <3.5 | ug/dL | WMRL |
| ZPP umol/MOL HEME | 65 | | 0-69 | umol/mol heme | WMRL |
| ZPP ug/dL | 38 | | 0-40 | ug/dL | WMRL |

These results should be interpreted in the context of OSHA, CDC, and local and state occupational health requirements. Additional information is available through the following link:

<https://www.cdc.gov/niosh/topics/ables/description.html>

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 hemoglobin level of 15 g/dL.

Methodology used in lead analysis is atomic absorption.

Methodology used for ZPP is Protofluor Z system manufactured by Helena Laboratories. This test has been modified from the manufacturer's instructions.

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

The Blood Lead test was developed and the performance characteristics determined by Warde Medical Laboratory. It has not been cleared or approved by the FDA. The laboratory is regulated under CLIA as qualified to perform high-complexity testing. This test is used for patient testing purposes. It should not be regarded as investigational or for research.

Performing Site:

WMRL: Warde Medical Laboratory 300 West Textile Road Ann Arbor MI 48108 (800)876-6522

LAB: L - LOW, H - HIGH, AB - ABNORMAL, C - CRITICAL,

D726000018

Ordered By: CLIENT CLIENT,

WMB-22-464

WX0000003735
Printed D&T: 5/26/2022 5:30 PM

WX0000000002250

PAGE 1 OF 1

William G. Finn, M.D. - Medical Director



LABORATORY REPORT

QC ACCOUNT (WARDE)
300 W. TEXTILE
ANN ARBOR MI 48108

EXAMPLE, REPORT

WX0000003481 F 12/08/1988

Collected: 05/26/2022 17:21

Received: 05/26/2022 17:21

Lead-ZPP Industrial

| Test Name | Result | Flag | Ref-Ranges | Units | Site |
|-------------------|--------|------|------------|---------------|------|
| Lead | 5.2 | H | <5.0 | ug/dL | WMRL |
| ZPP umol/MOL HEME | 54 | | 0-69 | umol/mol heme | WMRL |
| ZPP ug/dL | 32 | | 0-40 | ug/dL | WMRL |

These results should be interpreted in the context of OSHA, CDC, and local and state occupational health requirements. Additional information is available through the following link:

<https://www.cdc.gov/niosh/topics/ables/description.html>

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Performing Site:

WMRL: Warde Medical Laboratory 300 West Textile Road Ann Arbor MI 48108 (800)876-6522

LAB: L - LOW, H - HIGH, AB - ABNORMAL, C - CRITICAL,

D726000017

Ordered By: CLIENT CLIENT,

WMB-22-463

WX0000003481

WX00000000002063

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William G. Finn, M.D. - Medical Director

| Inactivate Test Without Replacement | |
|-------------------------------------|---|
| Effective Date | 6/1/2022 |
| Name | Giardia lamblia IgG Ab |
| Code | GLAMB |
| Legacy Code | GLAMAB |
| Interface Code | 3503010 |
| Notes | Suggested replacement is GLAG [3715150] - Giardia AG, EIA, STOOL. |