

# Legacy Laboratory Services

## Legacy Lab Alert

March 2019

An Important Update from Legacy Laboratory Services

### Update: Zinc Protoporphyrin To Be Referred to ARUP

Effective March 20, 2019, Legacy Laboratory Services (LLS) will be sending Zinc Protoporphyrin (ZPP) testing to ARUP Laboratories. This change is due to the instrument manufacturer, Aviv, permanently closing business. For convenience, we will keep the LLS orderables the same, but will convert the orders to the appropriate ARUP test, internally (Table 1). On April 9, 2019, the order ZPP LEAD will be discontinued, but LEAD WB and ZPP may be ordered individually. Significant differences are listed below. For more information on new specimen requirements and reference ranges, refer to Table 2.

- The upper limit of the ZPP reference range is slightly different (LLS: 37 µg/dL; ARUP: 40 µg/dL).
- Lavender top tubes will no longer be accepted for the panel: *Lead, Industrial Exposure Panel, Adults* (LEAD WB IND).
- Both the LEAD WB IND and Zinc Protoporphyrin/Lead (ZPP LEAD) panels will require higher specimen volumes.
- The room temperature and refrigerated stabilities for ZPP and LEAD WB IND are different.

Table 1: ARUP Test Equivalents

Legacy Laboratory Services			ARUP Laboratories	
Description	Mnemonic		Description	ARUP ID
Zinc Protoporphyrin	ZPP	converted to	Zinc Protoporphyrin, Whole Blood Industrial	0020614
Lead, Industrial Exposure Panel, Adult	LEAD WB IND		Lead, Industrial Exposure Panel, Adults	0025016
Zinc Protoporphyrin and Lead	ZPP LEAD		<ul style="list-style-type: none"> <li>• <b>Before 4/9/19:</b> Order ZPP LEAD as before. LLS will automatically split into two orderables: 1.) LEAD WB performed by LLS and 2.) ZPP performed by ARUP.</li> <li>• <b>Effective 4/9/19:</b> Order LEAD WB and ZPP individually.</li> </ul>	
Lead, Whole Blood	LEAD WB		No change. Still performed by LLS.	

Table 2: NEW Specimen Requirements – Significant differences from previous Legacy Laboratory Services testing are in **red** font.

Parameters	Zinc Protoporphyrin	Lead, Industrial Exposure Panel, Adult	Zinc Protoporphyrin and Lead
Performing Lab	ARUP	ZPP: ARUP Lead: ARUP	ZPP: ARUP Lead: LLS
Mnemonic	ZPP	LEAD WB IND	ZPP LEAD
Includes	<ul style="list-style-type: none"> <li>• Zinc Protoporphyrin</li> <li>• Zinc Protoporphyrin-to-Heme Ratio</li> </ul>	<ul style="list-style-type: none"> <li>• Zinc Protoporphyrin</li> <li>• Zinc Protoporphyrin-to-Heme Ratio</li> <li>• Lead</li> </ul>	<ul style="list-style-type: none"> <li>• Zinc Protoporphyrin</li> <li>• Zinc Protoporphyrin-to-Heme Ratio</li> <li>• Lead</li> </ul>

Parameters		Zinc Protoporphyrin	Lead, Industrial Exposure Panel, Adult	Zinc Protoporphyrin and Lead
<b>Patient Preparation</b>		na	Collect from patient aged 16 years or older.	na
<b>Collect</b>		EDTA Whole Blood, one 4.0 mL lavender (EDTA), 6.0 mL royal blue (K <sub>2</sub> EDTA or Na <sub>2</sub> EDTA), or <b>3.0 mL tan (K<sub>2</sub>EDTA)</b> top tube  <i>Use royal blue top tube when also testing for lead.</i>	EDTA Whole Blood, one certified lead-free tube such as one 6.0 mL royal blue (K <sub>2</sub> EDTA or Na <sub>2</sub> EDTA) or <b>3.0 mL tan (K<sub>2</sub>EDTA)</b> top tube  <b>NO LAVENDER TOP TUBES</b>	Preferred: EDTA Whole Blood, one 6.0 mL royal blue (K <sub>2</sub> EDTA or Na <sub>2</sub> EDTA) Also, acceptable: EDTA Whole Blood, one 4.0 mL lavender (EDTA), or 3.0 mL tan (K <sub>2</sub> EDTA) top tube.
<b>Handling</b>		Guard the specimen against environmental contamination. Keep the specimen sealed in the original container. Do not separate the plasma from the red blood cells.	Guard the specimen against environmental contamination. Keep the specimen sealed in the original container. Do not separate the plasma from the red blood cells.	Guard the specimen against environmental contamination. Keep the specimen sealed in the original container. Do not separate the plasma from the red blood cells.
<b>Preferred Volume</b>		1.0 mL EDTA Whole Blood	<b>7.0 mL</b> EDTA Whole Blood	<b>4.0 mL</b> EDTA Whole Blood
<b>Minimum Volume</b>		<b>0.2 mL</b> EDTA Whole Blood	<b>2.0 mL</b> EDTA Whole Blood	<b>2.0 mL</b> EDTA Whole Blood
<b>Transport</b>		Refrigerated (2-8 °C)	Refrigerated (2-8 °C)	Refrigerated (2-8 °C)
<b>Rejection Criteria</b>		<ul style="list-style-type: none"> <li>Specimens other than EDTA whole blood</li> <li>Hemolyzed specimens</li> <li>Clotted specimens</li> <li>Frozen specimens</li> </ul>	<ul style="list-style-type: none"> <li><b>Whole blood collected in tube other than royal blue (K<sub>2</sub>EDTA or Na<sub>2</sub>EDTA) or tan (K<sub>2</sub>EDTA) top</b></li> <li>Serum and plasma specimens</li> <li>Hemolyzed specimens</li> <li>Clotted specimens</li> <li>Frozen specimens</li> </ul>	<ul style="list-style-type: none"> <li>Specimens other than EDTA whole blood</li> <li>Hemolyzed specimens</li> <li>Clotted specimens</li> <li>Frozen specimens</li> </ul>
<b>Stability</b>	Room Temp. (18-26 °C)	<b>30 hours</b>	<b>30 hours</b>	<ul style="list-style-type: none"> <li><b>ARUP ZPP: 30 hours</b></li> <li><b>LLS Lead: 24 hours</b></li> </ul>
	Refrigerated (2-8 °C)	<b>5 weeks</b>	<b>5 weeks</b>	<ul style="list-style-type: none"> <li><b>ARUP ZPP: 5 weeks</b></li> <li><b>LLS Lead: 20 days</b></li> </ul>
	Frozen (≤ -20 °C)	Unacceptable	Unacceptable	<ul style="list-style-type: none"> <li><b>ARUP ZPP: unacceptable</b></li> <li><b>LLS Lead: unacceptable</b></li> </ul>
<b>Note</b>		na	na	<b>LLS Lead:</b> All elevated Lead blood levels collected in a non-certified lead-free tube (i.e., EDTA lavender top tube) will be run with the following disclaimer: "Specimen was collected in a non-certified lead-free tube. Recommend confirming elevated level of blood lead with a second specimen collected in a lead-free tube."
<b>Reference Ranges</b>		<ul style="list-style-type: none"> <li><b>ARUP ZPP:</b> 0-40 µg/dL</li> <li><b>ARUP ZPPH:</b> 0-69 µmol ZPP/mol Heme</li> </ul>	<ul style="list-style-type: none"> <li><b>ARUP ZPP:</b> 0-40 µg/dL</li> <li><b>ARUP ZPPH:</b> 0-69 µmol ZPP/mol Heme</li> <li><b>ARUP Lead:</b> 0-4.9 µg/dL</li> </ul>	<ul style="list-style-type: none"> <li><b>ARUP ZPP:</b> 0-40 µg/dL</li> <li><b>ARUP ZPPH:</b> 0-69 µmol ZPP/mol Heme</li> <li><b>LLS Lead:</b> 0-4.9 µg/dL</li> </ul>
<b>Performed</b>		<b>Mon - Fri</b>	<b>7 days per week</b>	<ul style="list-style-type: none"> <li><b>ARUP ZPP: Mon – Fri</b></li> <li><b>LLS Lead:</b> Mon, Wed, Fri</li> </ul>
<b>Reported</b>		<b>2 – 5 days</b>	<b>2 - 6 days</b>	<ul style="list-style-type: none"> <li><b>ARUP ZPP: 2 – 5 days</b></li> <li><b>LLS Lead: 1 – 3 days</b></li> </ul>
<b>Method</b>		<b>ARUP ZPP: Helena</b> Hematofluorometry	<ul style="list-style-type: none"> <li><b>ARUP ZPP: Helena</b> Hematofluorometry</li> <li><b>ARUP Lead: ICP-Mass Spectrometry</b></li> </ul>	<ul style="list-style-type: none"> <li><b>ARUP ZPP: Helena</b> Hematofluorometry</li> <li><b>LLS Lead:</b> Atomic Absorption Spectroscopy – Graphite Furnace</li> </ul>

For additional information, please contact your account representative, client services or consult our website: Legacy Laboratory Client Services: 503-413-1234, 877-270-5566, [www.legacyhealth.org/labservices](http://www.legacyhealth.org/labservices)