

## Guidelines for Specimen Collection and Labeling

**Instrument: Alpha Wassermann ACE Alera**

**TEST (TEST CODE):**

**Complete Metabolic Panel (CMP)**

**(ALB, ALT, ALP, AST, BUN, Ca, Cl, CO<sub>2</sub>, CREAT, GLU, K, Na, TBILI, TP)**

**COLLECTION INSTRUCTIONS:**

Fasting is recommended but not required.

**SPECIMEN TYPE:**

Whole Blood

**COLLECTION CONTAINER:**

Gold top tube (SST), Red top tube (clot activator), Green top tube with gel barrier (lithium heparin), Green top tube (lithium heparin) or Red top microtainer/bullet (no additive)



**COLLECTION AMOUNTS:**

Preferred: 4.0 mL

Minimum: 2.0 mL

**REJECTION CRITERIA:**

EDTA, citrate, fluoride/oxalate plasma and hemolyzed specimens are unacceptable.

**COLLECTION TIMING:**

Separate serum from cells ASAP or within 2 hours of collection.

**PROCESSING SPECIMENS:**

**Serum/Plasma**

**PROCESSED AMOUNTS:**

Preferred: 2.0 mL

Minimum: 1.0 mL

**PROCESSING INSTRUCTIONS:**

Allow red top or SST to clot for 20-30 minutes.

**CRITICAL:** Centrifuge specimen to separate serum/plasma from cells within 2 hours of collection. If using non-gel barrier tubes, aliquot 2.0 ml (min 1.0 ml) serum/plasma into transport tube. Refrigerate.

SPECIMEN STORAGE/STABILITY:	<b>Temperature</b>	<b>Stability</b>
	Ambient	1 day(s)
	Refrigerated	3 day(s)
	Frozen	1 week(s)
SHIPPING INSTRUCTIONS:	Refrigerate specimen during transportation.	
REFERENCE INTERVAL:	<b>ALB:</b>	
	Female (0 - 1 years):	2.7-4.5 gm/dL
	(>1 years):	3.4-4.7 gm/dL
	Male (0 - 1 years):	2.7-4.5 gm/dL
	(>1 years):	3.4-4.7 gm/dL
	<b>ALP:</b>	
	Female (0 - 30 days):	76-452 U/L
	(30 days-1 years):	75-467 U/L
	(1 years-4 years):	40-356 U/L
	(4 years-7 years):	74-359 U/L
	(7 years-10 years):	94-410 U/L
	(10 years-12 years):	76-449 U/L
	(12 years- 14 years):	61-353 U/L
	(14 years-16 years):	53-198 U/L
	(16 years-20 years):	40-137 U/L
	(>20 years):	38-150 U/L
	Male (0 - 30 days):	76-452 U/L
	(30 days-1 years):	75-467 U/L
	(1 years-4 years):	40-356 U/L
	(4 years-7 years):	74-359 U/L
	(7 years-10 years):	94-410 U/L
	(10 years-12 years):	68-436 U/L
	(12 years- 14 years):	98-448 U/L
	(14 years-16 years):	69-391 U/L
	(16 years-20 years):	50-203 U/L
	(>20 years):	38-150 U/L
	<b>ALT:</b>	
	Female (0 - 1 years):	15-59 U/L
	(1 years – 4 years):	14-69 U/L
	(4 years - 12 years):	12-61 U/L
	(12 years-20 years):	12-49 U/L
	(>20 years):	14-67 U/L
	Male (0 - 1 years):	16-71 U/L
	(1 years – 4 years):	14-69 U/L
	(4 years - 12 years):	12-61 U/L
	(12 years-20 years):	13-63 U/L
	(>20 years):	14-67 U/L

REFERENCE INTERVAL:

**AST:**

Female (0 - 1 years):	13-72 U/L
(1 years – 5 years):	16-60 U/L
(5 years - 20 years):	6-38 U/L
(>20 years):	6-58 U/L
Male (0 - 1 years):	13-72 U/L
(1 years – 5 years):	16-60 U/L
(5 years - 20 years):	6-38 U/L
(>20 years):	6-58 U/L

**BUN:**

Female:	7 – 31 mg/dL
Male:	7 – 31 mg/dL

**CA:**

Female (0-8 days):	7.6-11.3 mg/dL
(>8 days):	8.4-10.4 mg/dL
Male (0-8 days):	7.6-11.3 mg/dL
(>8 days):	8.4-10.4 mg/dL

**CL:**

Female:	98-111 mmol/L
Male:	98-111 mmol/L

**CO<sub>2</sub>:**

Female (0-19 years):	18-28 mmol/L
(>19 years):	20-30 mmol/L
Male (0-19 years):	18-28 mmol/L
(>19 years):	20-30 mmol/L

**CREAT:**

Female (0-30 days):	0.70-1.20 mg/dL
(30 days-10 years):	0.20-0.80 mg/dL
(10-13 years):	0.50-1.10 mg/dL
(>13 years):	0.60-1.00 mg/dL
Male (0-30 days):	0.70-1.20 mg/dL
(30 days-10 years):	0.20-0.80 mg/dL
(10-13 years):	0.50-1.10 mg/dL
(>13 years):	0.80-1.30 mg/dL

**GLU:**

Female (0-30 days):	55-90 mg/dL
(30 days-16 years):	60-115 mg/dL
(>16 years):	60-100 mg/dL
Male (0-30 days):	0.70-1.2 mg/dL
(30 days-10 years):	55-90 mg/dL
(10-16 years):	60-115 mg/dL
(>16 years):	60-100 mg/dL

**REFERENCE INTERVAL:**

**K:**

Female (0-7 days):	3.2-5.7 mmol/L
(7-30 days):	3.4-6.5 mmol/L
(30 days-3 months):	3.5-5.8 mmol/L
(3 months-1 years):	3.5-5.8 mmol/L
(1-19 years):	3.6-5.0 mmol/L
(>19 years):	3.5-5.1 mmol/L
Male (0-7 days):	3.2-5.7 mmol/L
(7-30 days):	3.4-6.5 mmol/L
(30 days-3 months):	3.5-5.8 mmol/L
(3 months-1 years):	3.5-5.8 mmol/L
(1-19 years):	3.6-5.0 mmol/L
(>19 years):	3.5-5.1 mmol/L

**NA:**

Female (0-19 years):	131-142 mmol/L
(>19 years):	134-144 mmol/L
Male (0-19 years):	131-142 mmol/L
(>19 years):	134-144 mmol/L

**TBILI:**

Female (0 - 1 day):	0.0-5.1 mg/dL
(1 day-3 days):	0.0-7.2 mg/dL
(3 days-30 days):	0.0-10.3 mg/dL
(>30 days):	0.3-1.2 mg/dL
Male (0 - 1 day):	0.0-5.1 mg/dL
(1 day-3 days):	0.0-7.2 mg/dL
(3 days-30 days):	0.0-10.3 mg/dL
(>30 days):	0.3-1.2 mg/dL

**TP:**

Female (0 – 1 years):	4.6-7.7 gm/dL
(1 years – 10 years):	5.4-8.3 gm/dL
(>10 years):	6.1-8.2 gm/dL
Male (0 – 1 years):	4.6-7.7 gm/dL
(1 years – 10 years):	5.4-8.3 gm/dL
(>10 years):	6.1-8.2 gm/dL