



Laboratory Technical Bulletin

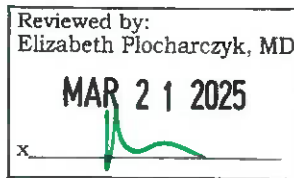
Date: 3/20/2025


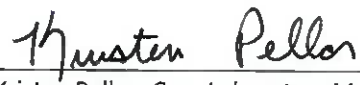
Effective Date: 3/22/2025

Title: Reference Ranges and Critical Values

Tests: Tests Performed at Cayuga Medical Center Main Lab

Explanation of change: See attached for updated Laboratory Reference Ranges, CMC Critical List, and Specimen Stability Quick Reference Guide. Updates to the CMC Critical List will be coming soon, as we continue to standardize.



| | |
|---|-----------------------|
| _____ | Date _____ |
| Laboratory Medical Director or Designee | |
|  | Date <u>3/21/25</u> |
| Michelle Walters, Laboratory Director | |
|  | Date <u>3/21/2025</u> |
| Kristen Pellor, Core Laboratory Manager | |

Laboratory Reference Ranges

Hematology

| Test | Reference Range | | |
|----------------------------------|-----------------|----------|-----------|
| | Age | Gender | Range |
| WBC $\times 10^3/\mu\text{L}$ | 0d | M,F | 9.0-35.0 |
| | 4d | M,F | 5.0-21.0 |
| | 10d | M,F | 5.0-20.0 |
| | 15d | M,F | 5.0-19.5 |
| | 1m | M,F | 6.0-17.5 |
| | 6m | M,F | 6.0-17.0 |
| | 2y | M,F | 5.5-15.5 |
| | 5y | M,F | 5.0-14.5 |
| | 9y | M,F | 4.5-13.5 |
| | 13y | M,F | 4.5-13.0 |
| | 18y | F | 3.8-11.8 |
| | M | 3.6-10.2 | |
| RBC $\times 10^6/\mu\text{L}$ | 0d | M,F | 3.30-6.30 |
| | 1d | M,F | 4.00-6.60 |
| | 7d | M,F | 3.90-6.30 |
| | 14d | M,F | 3.60-6.20 |
| | 1m | M,F | 3.00-5.40 |
| | 2m | M,F | 2.70-4.90 |
| | 3m | M,F | 3.10-4.50 |
| | 6m | M,F | 3.70-5.30 |
| | 2y | M,F | 3.90-5.30 |
| | 6y | M,F | 4.00-5.20 |
| | 12y | F | 4.10-5.10 |
| | | M | 4.50-5.30 |
| | 18y | F | 3.63-4.92 |
| | | M | 4.06-5.63 |
| HGB g/dL | 0d | M,F | 14.5-22.5 |
| | 7d | M,F | 13.5-19.5 |
| | 14d | M,F | 12.5-20.5 |
| | 1m | M,F | 10.0-18.0 |
| | 2m | M,F | 9.0-14.0 |
| | 3m | M,F | 9.5-13.5 |
| | 6m | M,F | 10.5-13.5 |
| | 2y | M,F | 11.5-15.5 |
| | 12y | F | 11.5-14.3 |
| | | M | 13.0-16.0 |
| | 18y | F | 11.5-14.3 |
| | | M | 13.2-16.3 |

| Test | Reference Range | | |
|--------------------------|-----------------|--------|----------|
| | Age | Gender | Range |
| HCT % | 0d | M,F | 42-66 |
| | 14d | M,F | 39-63 |
| | 1m | M,F | 31-55 |
| | 2m | M,F | 28-42 |
| | 6m | M,F | 33-39 |
| | 2y | M,F | 34-40 |
| | 6y | M,F | 35-45 |
| | 18y | F | 35-45 |
| | | M | 38-53 |
| MCV fL | 0d | M,F | 88-126 |
| | 14d | M,F | 86-123 |
| | 1m | M,F | 85-123 |
| | 2m | M,F | 77-115 |
| | 3m | M,F | 74-108 |
| | 6m | M,F | 70-86 |
| | 2y | M,F | 75-87 |
| | 6y | M,F | 77-96 |
| | 18y | M,F | 80-97 |
| MCH pg | 0d | M,F | 28-40 |
| | 2m | M,F | 26-32 |
| | 3m | M,F | 25-32 |
| | 6m | M,F | 23-30 |
| | 2y | M,F | 24-30 |
| | 6y | M,F | 25-31 |
| | 12y | M,F | 25-32 |
| | 17y | M,F | 27-33 |
| MCHC g/dL | 0d | M,F | 29-37 |
| | 7d | M,F | 28-38 |
| | 2m | M,F | 28-36 |
| | 4m | M,F | 29-37 |
| | 6m | M,F | 32-37 |
| | 2y | M,F | 30-36 |
| | 12y | M,F | 31-36 |
| RDW % | 0d | M,F | 12-17 |
| PLT x10 ³ /μl | 0d | M,F | 150-450 |
| MPV fL | 0d | M,F | 6.8-11.3 |
| | 13y | M,F | 7.5-11.2 |

| Test | Reference Range | | |
|-----------------------------|-----------------|--------|----------|
| | Age | Gender | Range |
| #NE x10 ³ /μl | 0d | M,F | 3.0-28.0 |
| | 4d | M,F | 1.0-13.0 |
| | 10d | M,F | 1.0-10.0 |
| | 15d | M,F | 1.0-9.0 |
| | 1m | M,F | 1.0-8.0 |
| | 2y | M,F | 1.5-8.5 |
| | 5y | M,F | 1.5-9.0 |
| | 9y | M,F | 1.5-9.5 |
| | 18y | M,F | 1.5-7.6 |
| #LY x10 ³ /μl | 0d | M,F | 2.0-10.0 |
| | 4d | M,F | 2.0-8.0 |
| | 10d | M,F | 2.0-9.0 |
| | 15d | M,F | 2.0-10.0 |
| | 1m | M,F | 2.0-12.0 |
| | 6m | M,F | 3.0-13.0 |
| | 2y | M,F | 2.0-10.0 |
| | 5y | M,F | 1.4-7.0 |
| | 9y | M,F | 1.3-6.5 |
| | 13y | M,F | 1.1-6.0 |
| | 18y | M,F | 1.0-4.8 |
| #MO x10 ³ /μl | 0d | M,F | 0.2-2.2 |
| | 4d | M,F | 0.1-2.9 |
| | 15d | M,F | 0.2-5.0 |
| | 1m | M,F | 0.2-2.1 |
| | 2m | M,F | 0.3-1.9 |
| | 2y | M,F | 0.4-1.1 |
| | 13y | M,F | 0.4-0.9 |
| | 18y | F | 0.0-0.9 |
| | | M | 0.0-1.1 |
| #EO x10 ³ /μl | 0d | M,F | 0.0-0.9 |
| | 1m | M,F | 0.0-0.6 |
| | 5y | M,F | 0.0-0.7 |
| | 12y | M,F | 0.0-0.5 |
| #BA x10 ³ /μl | 0d | M,F | 0.0-0.5 |
| | 4d | M,F | 0.0-0.4 |
| | 2m | M,F | 0.0-0.2 |
| | 13y | M,F | 0.0-0.1 |
| NRBC /100 WBC | 0d | M,F | 0.0-2.0 |
| | 4d | M,F | 0.0-0.8 |
| Band % | 0d | M,F | 0-8 |
| Metamyelocyte % | 0d | M,F | 0-2 |
| Myelocyte % | 0d | M,F | 0-1 |
| Atypical Lymphocyte % | 0d | M,F | 0-6 |
| RETIC % | 18y | M,F | 0.5-2.2 |

| Test | Reference Range | | |
|-------------------|-----------------|--------|----------|
| | Age | Gender | Range |
| Sed Rate mm/Hr | 0d | F | 0-19 |
| | | M | 0-14 |
| | 50y | F | 0-29 |
| | | M | 0-19 |
| Infectious Mono | 0d | M,F | Negative |
| FFN | 0d | M,F | Negative |

Coagulation

| Test | Reference Range | | |
|------------|-----------------|--------|-------------------|
| | Age | Gender | Range |
| PT | 0d | M,F | 9.5-12.8 sec. |
| INR | 0d | M,F | 0.85-1.14 |
| PTT | 0d | M,F | 26.0-38.0 sec. |
| Fibrinogen | 0d | M,F | 238.0-498.0 mg/dL |
| D-Dimer | 0d | M,F | < 243 ng/mL |

Semen Analysis

| Test | Reference Range | | |
|----------------|-----------------|--------|--------------------------|
| | Age | Gender | Range |
| Volume | 0d | M | 1.5-5.0 mL |
| Total Motility | 0d | M | ≥40% |
| Progressive | 0d | M | >31% |
| Sperm Count | 0d | M | ≥15 x10 ⁶ /mL |

Urinalysis

| Test | Reference Range | | |
|---------------------------|-----------------|--------|------------------------|
| | Age | Gender | Range |
| Color | 0d | M,F | Yellow |
| Clarity | 0d | M,F | Clear |
| Specific Gravity | 0d | M,F | 1.002-1.030 |
| pH | 0d | M,F | 5.0-8.0 |
| Urobilinogen | 0d | M,F | Negative |
| Ketones | 0d | M,F | Negative |
| Protein | 0d | M,F | Negative |
| Leukocytes | 0d | M,F | Negative |
| Blood | 0d | M,F | Negative |
| Nitrite | 0d | M,F | Negative |
| Bilirubin | 0d | M,F | Negative |
| Glucose | 0d | M,F | Negative |
| Miscoscopic | | | |
| Bacteria | 0d | M,F | Absent/HPF |
| Crystals | 0d | M,F | Absent/HPF |
| Casts | 0d | M,F | Absent/LPF |
| Non-Squamous Epithelials | 0d | M,F | Absent/HPF |
| Squamous Epithelial Cells | 0d | M,F | Absent/HPF |
| Red Blood Cells | 0d | M,F | Absent-Trace (0-2/HPF) |
| White Blood Cells | 0d | M,F | Absent-Trace (0-5/HPF) |

Body Fluid White Blood Cell Counts

| Test | Reference Range | | |
|---------------------------|-----------------|--------|---------------|
| | Age | Gender | Range |
| Synovial Fluid | 0d | M,F | <150/ μ L |
| Peritoneal Fluid | 0d | M,F | <500/ μ L |
| Pleural Fluid | 0d | M,F | <500/ μ L |
| Pericardial Fluid | 0d | M,F | <500/ μ L |
| Cerebrospinal Fluid (CSF) | 0d | M,F | 0-30/ μ L |
| | 29d | M,F | 0-5/ μ L |
| CSF Red Blood Cells | 0d | M,F | 0/ μ L |

d=Days M=Male
 m=Months F=Female
 y=Years U=Unknown

Laboratory Reference Ranges
Chemistry

| Test | Reference Range | | |
|---------------|-----------------|------------|-------------------------|
| | Age | Gender | Range |
| HA1c | 0d | M,F | 4.0-5.6 % |
| Serum Osmo | 0d | M,F | 275-295 mOsm/kg |
| Urine Osmo | 0d | M,F | ≤750 mOsm/kg |
| | 1y | M,F | 150-1150 mOsm/kg |
| Acetaminophen | 0d | M,F | Therapeutic <50 µg/mL |
| Albumin | 0d | M,F | 2.8-4.2 g/dL |
| | 2m | M,F | 3.5-5.7 g/dL |
| ALP | 0d | M,F | 150-420 U/L |
| | 1y | F | 60-321 U/L |
| | | M | 110-302 U/L |
| | 5y | F | 118-360 U/L |
| | | M | 110-341 U/L |
| | 10y | M,F | 103-373 U/L |
| | 12y | M,F | 83-382 U/L |
| | 14y | M,F | 67-372 U/L |
| 17y | M,F | 34-104 U/L | |
| ALT | 0d | M,F | 7-52 U/L |
| Ammonia | 0d | M,F | 16-53 µmol/L |
| Amylase | 0d | M,F | 29-103 U/L |
| Anion Gap | 0d | M,F | 2-16 mmol/L |
| AST | 0d | M,F | 13-39 U/L |
| bHCG | 0d | M,F | <5.0 mIU/mL (Negative) |
| | | | >25.0 mIU/mL (Positive) |
| BNP | 0d | M,F | ≤100 pg/mL |
| BUN | 0d | M,F | 2-19 mg/dL |
| | 10d | M,F | 6-24 mg/dL |
| Calcium | 0d | M,F | 7.6-10.4 mg/dL |
| | 10d | M,F | 8.6-10.3 mg/dL |
| Carbamezapine | 0d | M,F | 4.0-12.0 µg/mL |
| CEA | 0d | M,F | 0.1-5.0 ng/mL |
| Cholesterol | 0d | F | 83-211 mg/dL |
| | | M | 82-212 mg/dL |
| | 5y | F | 96-211 mg/dL |
| | | M | 98-210 mg/dL |
| | 10y | F | 95-237 mg/dL |
| | | M | 66-190 mg/dL |
| 18y | M,F | <200 mg/dL | |
| CK | 0d | M,F | 30-223 U/L |
| CKMB | 0d | M,F | 0.6-6.3 ng/mL |

| Test | Reference Range | | |
|-----------------|----------------------|--------|----------------------|
| | Age | Gender | Range |
| Chloride | 0d | M,F | 97-108 mmol/L |
| | 6m | M,F | 101-111 mmol/L |
| CO ₂ | 0d | M,F | 23-33 mmol/L |
| | 1y | M,F | 22-32 mmol/L |
| Cortisol | 0d | M,F | AM 8.7-22.4 µg/dL |
| | | | PM <10 µg/dL |
| Creatinine | 0d | M,F | 0.3-1.0 mg/dL |
| | 10d | F | 0.5-1.0 mg/dL |
| | | M | 0.7-1.2 mg/dL |
| CRP | 0d | M,F | ≤8.0 mg/L |
| CRP HS | 0d | M,F | <2.00 mg/L |
| CSF Glu | 0d | M,F | 68-80 mg/dL |
| | 12y | M,F | 40-70 mg/dL |
| CSF Pro | 0d | M,F | 15-45 mg/dL |
| Direct Bili | 0d | M,F | 0.1-0.9 mg/dL |
| | 8d | M,F | 0.0-0.2 mg/dL |
| Digoxin | 0d | M,F | 0.8-2.0 ng/mL |
| EtOH | 0d | M,F | <13 mg/dL |
| Ferritin | 0d | M | 24-336 ng/mL |
| | | F | 11-307 ng/mL |
| Folate | 0d | M,F | ≥5.9 ng/mL |
| FSH | 0d | M | 1.3-19.3 mIU/mL |
| | Mid-Follicular Phase | F | 3.9-8.8 mIU/mL |
| | Mid-Cycle Peak | F | 4.5-22.5 mIU/mL |
| | Mid-Luteal Phase | F | 1.8-5.1 mIU/mL |
| | Post Menopausal | F | 16.7-113.6 mIU/mL |
| FT3 | 0d | M,F | 2.5-3.9 pg/mL |
| FT4 | 0d | M,F | 0.61-1.12 ng/dL |
| Gentamicin | 0d | M,F | 0.0-2.0 µg/mL Trough |
| | | | 4.0-8.0 µg/mL Peak |
| GGT | 0d | M,F | 9-64 U/L |
| Globulin | 0d | M,F | 2-4 g/dL |
| Glucose | 0d | M,F | 50-120 mg/dL |
| | 7d | M,F | 70-100 mg/dL |
| HDL | 0d | M,F | >45 mg/dL |
| | 18y | F | ≥50 mg/dL |
| | | M | ≥40 mg/dL |
| Indirect Bili | 0d | M,F | 0.3-1.0 mg/dL |

| Test | Reference Range | | |
|-----------------|----------------------|-------------|----------------------|
| | Age | Gender | Range |
| Insulin | 0d | M,F | 2.0-16.0 μ IU/mL |
| Iron | 0d | M,F | 50-212 ug/dL |
| Iron Saturation | 0d | M,F | 15-55% |
| Lactic Acid | 0d | M,F | 0.5-2.0 mmol/L |
| LDH | 0d | M,F | 290-775 U/L |
| | 4d | M,F | 545-2000 U/L |
| | 11d | M,F | 180-430 U/L |
| | 1y | M | 140-304 U/L |
| | | F | 142-297 U/L |
| | 5y | M | 155-290 U/L |
| | | F | 142-261 U/L |
| | 10y | M | 140-304 U/L |
| F | | 122-234 U/L | |
| 18y | M,F | 140-271 U/L | |
| LDL | 0d | M,F | <100 mg/dL |
| LH | 0d | M | 1.2-8.6 mIU/mL |
| | Mid-Follicular Phase | F | 2.1-10.9 mIU/mL |
| | Mid-Cycle Peak | F | 19.2-103.0 mIU/mL |
| | Mid-Luteal Phase | F | 1.2-12.9 mIU/mL |
| | Post Menopausal | F | 10.9-58.6 mIU/mL |
| Lipase | 0d | M,F | 11-82 U/L |
| Lithium | 0d | M,F | 0.6-1.2 mmol/L |
| Magnesium | 0d | M,F | 1.9-2.7 mg/dL |
| Myoglobin | 0d | M | 17.4-105.7 ng/mL |
| | | F | 14.3-65.8 ng/mL |
| Phenobarbital | 0d | M,F | 17-34 μ g/mL |
| Phenytoin | 0d | M,F | 10-20 μ g/mL |
| Phosphorous | 0d | M,F | 4.0-7.0 mg/dL |
| | 12y | M,F | 2.5-5.0 mg/dL |
| Potassium | 0d | M,F | 3.7-5.9 mmol/L |
| | 10d | M,F | 3.5-5.0 mmol/L |
| Prealbumin | 0d | M,F | 18-38 mg/dL |
| Procalcitonin | 0d | M,F | <0.07 ng/mL |

| Test | Reference Range | | |
|--|-------------------------|--------|-------------------|
| | Age | Gender | Range |
| Progesterone | 0d | M | 0.1-2.1 ng/mL |
| | Mid-Follicular Phase | F | 0.3-1.5 ng/mL |
| | Mid-Luteal Phase | F | 5.2-18.6 ng/mL |
| | Post Menopausal | F | <0.8 ng/mL |
| | Pregnant Trimester1 | F | 4.7-50.7 ng/mL |
| | Pregnant Trimester2 | F | 19.4-45.3 ng/mL |
| Prolactin | 0d | M | 2.6-13.1 ng/mL |
| | Premeno-pausal or <50y | F | 3.3-26.7 ng/mL |
| | Postmeno-pausal or ≥50y | F | 2.7-19.6 ng/mL |
| PSA | 0d | M,F | 0.000-4.000 ng/mL |
| PTH | 0d | M,F | 12-88 pg/mL |
| PTHio | 0d | M,F,U | 12-88 pg/mL |
| RF | 0d | M,F | <15.0 IU/mL |
| Rubella | 0d | M,F | Immune |
| Salicylate | 0d | M,F | <30.0 mg/dL |
| Sensitive Estradiol (Non-Pregnant)* | Pediatric | M,F | ≤38.2 pg/mL |
| | Pre-Puberty | M | ≤15.0 pg/mL |
| | Puberty | M | 19.5-34.8 pg/mL |
| | Adult | M | ≤31.5 pg/mL |
| | Early Follicular | F* | 22.4-115.0 pg/mL |
| | Mid Follicular | F* | 25.0-115.0 pg/mL |
| | Ovulatory Peak | F* | 32.1-517.0 pg/mL |
| | Mid Luteal | F* | 36.5-246.0 pg/mL |
| | Pre-Puberty | F* | ≤16.0 pg/mL |
| | Puberty | F* | 36.5-196.0 pg/mL |
| | Post Menopausal | F* | ≤25.1 pg/mL |
| Sodium | 0d | M,F | 130-145 mmol/L |
| | 1y | M,F | 135-145 mmol/L |

| Test | Reference Range | | |
|------------------|-----------------|------------|--------------------|
| | Age | Gender | Range |
| Testosterone | 0d | M | 75-400 ng/dL |
| | | F | 20-80 ng/dL |
| | 5m | M,F | ≤20 ng/dL |
| | 10y | M | ≤130 ng/dL |
| | | F | ≤44 ng/dL |
| | 12y | M | ≤800 ng/dL |
| | | F | ≤75 ng/dL |
| | 14y | M | ≤1200 ng/dL |
| | 15y | M | 100-1200 ng/dL |
| | 17y | M | 300-1200 ng/dL |
| | | F | 20-75 ng/dL |
| | 19y | M | 240-950 ng/dL |
| F | | 8-60 ng/dL | |
| TgAb | 0d | M,F | <4.0 IU/mL |
| Theophylline | 0d | M,F | 10-20 µg/mL |
| TIBC | 0d | M,F | 250-450 µg/dL |
| Total Bili, Cord | 0d | M,F | ≤3.0 mg/dL |
| Total Bili | 0d | M,F | <10.0 mg/dL |
| | 2d | M,F | <12.0 mg/dL |
| | 4d | M,F | <10.0 mg/dL |
| | 15d | M,F | 0.2-1.0 mg/dL |
| Total Protein | 0d | M,F | 6.4-8.9 g/dL |
| Total T3 | 0d | M,F | 87-178 ng/dL |
| Total T4 | 0d | M,F | 6.1-12.2 µg/dL |
| TPO | 0d | M,F | <9.0 IU/mL |
| Transferrin | 0d | M,F | 203-362 mg/dL |
| Triglycerides | 0y | M,F | 32-99 mg/dL |
| | 6y | M,F | 35-114 mg/dL |
| | 11y | M,F | 27-134 mg/dL |
| | 19y | M,F | <150 mg/dL |
| Troponin HS | 0d | M | <20 pg/mL |
| | | F | <15 pg/mL |
| TSH | 0d | M,F | 0.34-5.60 µIU/mL |
| Uric Acid | 0d | F | 2.3-6.6 mg/dL |
| | | M | 4.4-7.6 mg/dL |
| Valproic Acid | 0d | M,F | 50-100 µg/mL |
| Vancomycin | 0d | M,F | 10-20 µg/mL |
| Vitamin B12 | 0d | M,F | 180-914 pg/mL |
| Vitamin D | 0d | M,F | 20-50 ng/mL |
| Urine Chloride | 0d | M,F | 110-250 mmol/24h |
| Urine Creat | 0d | F | 20.00-320.00 mg/dL |
| | | M | 20.00-370.00 mg/dL |
| Urine Creat | 0d | M,F | 600-1800 mg/24h |

| Test | Reference Range | | |
|-------------------|-----------------|--------|------------------|
| | Age | Gender | Range |
| Creat Clearance | 0d | F | 88-128 mL/min |
| | | M | 97-137 mL/min |
| Urine Malb | 0d | M,F | <30 mg/24h |
| Urine Malb/Creat | 0d | M,F | <31 mg/g |
| Urine Potassium | 0d | M,F | 25-125 mmol/24h |
| Urine Protein | 0d | M,F | 0.0-165.0 mg/24h |
| Urine Sodium | 0d | M,F | 40-220 mmol/24h |
| Ur Urea Clearance | 0d | M,F | 59-99 mL/min |
| Amph | 0d | M,F | None Detected |
| Barb | 0d | M,F | None Detected |
| Benz | 0d | M,F | None Detected |
| Cocaine | 0d | M,F | None Detected |
| Opiates | 0d | M,F | None Detected |
| PCP | 0d | M,F | None Detected |
| THC | 0d | M,F | None Detected |
| Bup | 0d | M,F | None Detected |
| Fent | 0d | M,F | None Detected |
| Hyd | 0d | M,F | None Detected |
| Meth | 0d | M,F | None Detected |
| Oxy | 0d | M,F | None Detected |
| HIVc | 0d | M,F | Non-Reactive |
| Hep B Surface Ab | 0d | M,F | Immune |
| Hep C Ab | 0d | M,F | Negative |
| Anti-HAV | 0d | M,F | Negative |
| Hep A IgM | 0d | M,F | Negative |
| Hep B Core IgM | 0d | M,F | Non-Reactive |
| Hep B Surface Ag | 0d | M,F | Non-Reactive |
| ABG pH | 0d | M,F | 7.35-7.45 |
| ABG pCO2 | 0d | M,F | 35-45 mmHg |
| ABG PO2 | 0d | M,F | 80-100 mmHg |
| ABG HCO3 | 0d | M,F | 19-31 mmol/L |
| ABG BE | 0d | M,F | -2.0-2.0 mmol/L |
| ABG O2S | 0d | M,F | 94.0-98.0 % |
| VBG pH | 0d | M,F | 7.32-7.43 |
| VBG pCO2 | 0d | M,F | 41-51 mmHg |
| VBG PO2 | 0d | M,F | <38 mmHg |
| VBG HCO3 | 0d | M,F | 24-28 mmol/L |
| VBG BE | 0d | M,F | 0.0-4.0 mmol/L |
| VBG O2S | 0d | M,F | 70.0-80.0 % |
| Capillary pH | 0d | M,F | 7.35-7.45 |
| Capillary pCO2 | 0d | M,F | 35-42 mmHg |
| Capillary PO2 | 0d | M,F | 40-50 mmHg |
| Capillary BE | 0d | M,F | -4.0-4.0 mmol/L |

| Test | Reference Range | | |
|-----------------|-----------------|--------|------------------|
| | Age | Gender | Range |
| CORD pH | 0d | M,F | 7.25-7.41 |
| CORD pCO2 | 0d | M,F | 35-51 mmHg |
| CORD PO2 | 0d | M,F | ≤41 mmHg |
| CORD BE | 0d | M,F | -7.1--0.2 mmol/L |
| Ionized Calcium | 0d | M,F | 4.80-5.52 mg/dL |
| | 19y | M,F | 4.64-5.28 mg/dL |
| Carbon Monoxide | 0d | M,F | <4.0% |
| Quantiferon-TB | 0d | M,F | Negative |
| Syphilis IgG | 0d | M,F | Negative |
| Lyme Ab Screen | 0d | M,F | Negative |

d=Days M=Male
m=Months F=Female
y=Years U=Unknown

CMC Critical List - 2025

All critical results will be reported to licensed caregiver within 30 minutes after completion.

| Test | Units | Low | High |
|---------------------------|---------------------|------------------|--|
| Heme/Coag | | | |
| Absolute Neutrophil Count | 10 ³ /μL | <1 (CHOA - none) | NONE |
| Blasts | % | NONE | ≥1 |
| Fibrinogen | mg/dL | <75 | NONE |
| Hemoglobin | g/dL | <6.5 | NONE |
| INR | | NONE | >5.00 |
| Blood Parasites | | NONE | Positive |
| PTT | Seconds | NONE | >100 |
| Platelet Count | 10 ³ /μL | <20 (CHOA <10) | NONE |
| WBC - CSF | Cells/μL | NONE | ≥29 days (>20) |
| Chem | | | |
| Acetaminophen | μg/mL | NONE | >50 |
| Bilirubin, Cord | mg/dL | NONE | >3.0 |
| Bilirubin, Total | mg/dL | NONE | >14 D (>11.9), 4-14 D (>14.9), 2-3 D (>17.9), 0-1 D (>14.9), Cord (>3.0) |
| Calcium | mg/dL | <6.5 | >13 |
| Carbamazepine | μg/mL | NONE | >15 |
| Carbon Monoxide | % | NONE | >15 |
| CO2 | mmol/L | <15 | >40 |
| Digoxin | ng/mL | NONE | >2.5 |
| Ethanol | mg/dL | NONE | >400 |
| Gentamicin | μg/mL | NONE | >12 |
| Glucose | mg/dL | <50 | >14 D (>500), 0-14 D (>300) |
| CSF Glu | mg/dL | <30 | NONE |
| Ionized Calcium | mg/dL | <3.24 | >6.28 |
| Lactic Acid | mmol/L | NONE | >2.0 |
| Lithium | mmol/L | NONE | >1.6 |
| Magnesium | mg/dL | <1 | >4.5 |
| Osmolality | mOsm/kg | <240 | >335 |
| Phenobarbital | μg/mL | NONE | >50 |

CMC Critical List - 2025

All critical results will be reported to licensed caregiver within 30 minutes after completion.

| Test | Units | Low | High |
|---|------------|------|---|
| Phenytoin | µg/mL | NONE | >30 |
| Phosphorus | mg/dL | <1 | NONE |
| Potassium | mmol/L | <2.8 | >6.0 |
| Salicylate | mg/dL | NONE | >30 |
| Sodium | mmol/L | <120 | >155 |
| Theophylline | µg/mL | NONE | >25 |
| HS Troponin-I Baseline to 1 hour or 3 Hour Draw | pg/mL | NONE | Male $\Delta \geq 15$, Female $\Delta \geq 10$ |
| Valproic Acid | µg/mL | NONE | >150 |
| Vancomycin Trough | µg/mL | NONE | >30 |
| 24 Hr. Urine Protein (Obstetric patients ONLY) | mg/24 hour | NONE | ≥ 300 |
| Random UR Microalbumin/Creat (OB pts. ONLY) | | NONE | >22.7 |
| ABG | | | |
| pH | | <7.2 | >7.6 |
| pCO2 | mmHg | <20 | >71 |
| pO2 | mmHg | <60 | NONE |
| HCO3 | mmol/L | <10 | >40 |

Chemistry

Specimen Stability Quick Reference

| Test Name | Stability | Container | Test Name | Stability | Container | Test Name | Stability | Container | Test Name | Stability | Container | Test Name | Stability | Container |
|-----------------|---------------|---------------|---------------|-----------|----------------|------------------|-----------|-----------------|--------------|-----------------|-------------------|-----------|-----------|-----------|
| Acetaminophen | 72 R | SST | FSH | 48 R | SST | QFTB | 28 Days R | Specialty Tubes | BFCC | 24 R | Lav/Sterile Cont. | | | |
| Albumin | 72 R | PST/SST | FT3 | 48 R | SST | RF | 72 R | SST | BFCRY | 24 R | Sterile Cont. | | | |
| Alcohol | 72 R | SST | FT4 | 48 R | SST | Rubella | 48 R | SST | CBCD | 24 R | Lavender | | | |
| ALP | 72 R | PST/SST | Gentamicin | 72 R | SST | Sallylate | 72 R | SST | CSFCC | 1 T | CSF Vial 4 | | | |
| ALT | 72 R | PST/SST | GGT | 72 R | SST | Syphils (RPR) | 4 Days | SST | D Dimer | 4 R | Blue | | | |
| Ammonia | 3 ICE/30min T | Pink/Lav | Glucose | 72 R | PST/SST/Grey | TBILI | 72 R | PST/SST | ESR | 12R / 4T | Lavender | | | |
| Amylase | 72 R | PST/SST | HA1C | 7 Days | Lavender | Testosterone | 48 R | SST | Malaria | 24 R | Lavender | | | |
| AST | 72 R | PST/SST | HDL | 72 R | PST/SST | TGAB | 48 R | SST | Mono | 48R SST/24R LAV | SST/Lav | | | |
| Blood Gas | 30 min T | Syringe | Hepatitis | 48 R | SST | Theophylline | 72 R | SST | Fibrinogen | 4 R | Blue | | | |
| B12 | 24 R | SST | HIV | 72 R | Dedicated Pink | Total T3 | 48 R | SST | PT/INR | 24 R | Blue | | | |
| BHCG | 48 R | PST/SST | Ion Calcium | 30 min R | Green | Total T4 | 24 R | SST | PTT | 4 R | Blue | | | |
| BHCG reflex | 48 R | Red | Insulin | 24 R | SST | Total Protein | 72 R | PST/SST | Retic | 24 R | Lavender | | | |
| BNP | 24 R | Pink/Lav | K | 72 R | PST/SST | TPO | 48 R | SST | Urinalysis | 24R / 1T | Urine | | | |
| BUN | 72 R | PST/SST | Lactic Acid | 1 T | Grey | Transferrin | 72 R | SST | | | | | | |
| Calcium | 72 R | PST/SST | LDH | 72 R | SST | Triglycerides | 72 R | PST/SST | | | | | | |
| Carbamazepine | 72 R | SST | LDL | 72 R | PST/SST | Troponin I | 48R / 4T | PST only | | | | | | |
| Carbon Monoxide | 7 days R T | Green Syringe | LH | 48 R | SST | TSH | 72 R | SST | DAT | 24 R | Pink | | | |
| CEA | 48 R | SST | Lipase | 72 R | PST/SST | Uric Acid | 72 R | PST/SST | Fetal Screen | 48 R | Pink | | | |
| Cholesterol | 72 R | PST/SST | Lithium | 72 R | SST | Valproic Acid | 72 R | SST | Fetal Stain | 24 R | Pink | | | |
| CK | 12 R | PST/SST | Lyme | 7 Days | SST | Vancamycin | 72 R | SST | TS | 72 R | Pink | | | |
| CKMB | 48 R | PST/SST | Magnesium | 72 R | PST/SST | Vitamin D | 72 R | SST | | | | | | |
| Cl | 72 R | PST/SST | Myoglobin | 24 R | PST/SST | ED Drug Screen | 7 Days | Urine | | | | | | |
| CO2 | 72 R | PST/SST | Na | 72 R | PST/SST | U Buprenorphine | 5 Days | Urine | | | | | | |
| Cortisol | 48 R | PST/SST | Osmolality | 72R / 24R | SST/Urine | U Fentanyl | 7 Days | Urine | | | | | | |
| Creatinine | 72 R | PST/SST | Phenobarbital | 72 R | SST | U Hydrocodone | 7 Days | Urine | | | | | | |
| CRP/CRPHS | 72 R | PST/SST | Phenytoin | 72 R | SST | U Methadone | 7 Days | Urine | | | | | | |
| CSF Glucose | 5 Days | CSF vial | Phosphorus | 72 R | PST/SST | U Oxycodone | 7 Days | Urine | | | | | | |
| CSF Protein | 72 R | CSF vial | Prealbumin | 72 R | SST | Urine Chloride | 72 R | Urine | | | | | | |
| DBILI | 72 R | PST/SST | Procalcitonin | 48 R | PST/SST | Ur Creatinine | 72 R | Urine | | | | | | |
| Digoxin | 72 R | SST | Progesterone | 48 R | Red | Urne Potassium | 72 R | Urine | | | | | | |
| Sens Estradiol | 8T / 72R | SST | Prolactin | 48 R | SST | Microalbumin | 24 R | Urine | | | | | | |
| Fe (Iron) | 72 R | SST | PSA | 24 R | SST | Urne Sodium | 72 R | Urine | | | | | | |
| Ferritin | 48 R | SST | PTH intact | 4T / 8R | SST | Urine UN | 72 R | Urine | | | | | | |
| Folate | 48 R | SST | PTH IO | 8 T | Pink/Lav | Ur Total Protein | 48 R | Urine | | | | | | |

Blood Bank

*Stabilities in hours unless otherwise noted

| |
|--------------|
| Key |
| R |
| T |
| Refrigerated |
| Room Temp |

Refer to Cayuga Lab Test Catalog for additional container types and stability times.

MD 9/15/17
Updated 9/2023, 9/2024, 3/2025 KT