# DXC 800 (AMR) ANALYTICAL MEASUREMENT RANGE

☒ St. Joseph Medical Center Tacoma, WA ☐ St. Clare Hospital Lakewood, WA ☐ St. Elizabeth Hospital Enumclaw, WA
☐ St. Francis Hospital Federal Way, WA ☐ St. Anthony Hospital Gig Harbor, WA ☐ PSC

| Test | Analytical Measurement Range (AMR) | Reportable Range | Acceptable Diluent | Maximum Manual Dilutions | Special Notes | Upper Limit report as | Lower Limit report as |
|---|---|---|---|---|---|---|---|
| **ACTM** | 10 -300 µg/mL | 10-600µg/mL | Saline | X2 (MAX dilution) | | >600 g/mL | <10 µg/mL |
| **ALBm** | 1.0 – 7.0 g/dL | 1.0-14.0g/dL | Saline | X2 (MAX dilution) | | >14.0 g/dL | <1.0 g/dL |
| **ALB BCG** | 1.0 – 6.0 g/dL | 1.0-12.0g/dL | Saline | X2 (MAX dilution) | | >12.0 g/dL | <1.0 g/dL |
| **ALP** | 5 – 1650 IU/L<br><br>Straight (5-1000 Ordac (800-1650) | 5-8250 IU/L | Saline | X5 (MAX dilution) | | >8250 IU/L | <5 IU/L |
| **ALT** | 5 – 2600 IU/L<br><br>Straight (5-400) Ordac (350-2600) | 5-13000 IU/L | Saline | Dilute "OIR LO" X2<br><br>X5 (MAX dilution) | | >13000 IU/L | <5 IU/L |
| **AMM** | 9 – 1000 µmol/L | 9 – 1000 µmol/L | N/A | DO NOT DILUTE | | >1000 µmol/L | <9 µmol/L |
| **AMY7** | 5 – 2000 U/L<br><br>Straight (5–1200) Ordac (1000-2000) | 5-10000 U/L plasma/serum<br><br>5-202,000 U/L urine | Saline | X5 (MAX dilution) for plasma/serum<br><br>X101 (Max dilution) for urine | Start Urine dilution at 1:51 | >10000 U/L for plasma / serum<br><br>>202,000 U/L for urine | <5 U/L plasma, serum and urine |
| **AST** | 5 – 2600 IU/L<br><br>Straight (5-400) Ordac (350-2600) | 5-13000 IU/L | Saline | Dilute "OIR LO" X2<br><br>X5 (MAX dilution) | | >13000 IU/L | <5 IU/L |

| Test | Analytical Measurement Range (AMR) | Reportable Range | Acceptable Diluent | Maximum Manual Dilutions | Special Notes | Upper Limit report as | Lower Limit report as |
|---|---|---|---|---|---|---|---|
| **BUNm** | 1 - 300mg/dL plasma/serum 10-3000mg/dL urine<br><br>Straight (1-150) plasma/serum (10-1500) urine<br><br>Ordac (130- 300) plasma/serum (1300-3000) urine | 1 - 300mg/dL plasma/serum<br><br>10-30,000 mg/dL urine | Saline | Plasma/serum: DO NOT DILUTE<br><br>Urine: Must run 1:10 dilution of sample/control Multiply by 10 before reporting result.<br><br>X10 (MAX dilution of ORDAC result) | | >300 mg/dL plasma/serum<br><br>>30,000 mg/dl urine | <1 mg/dL plasma & serum<br><br><10 mg/dL urine |
| **CA** | 2 - 20 mg/dL plasma/serum 2 - 30 mg/dL urine | 2-40 mg/dL plasma and serum<br><br>2-150 mg/dL urine | DI water (NERL) | X2 (MAX dilution) Plasma/serum<br><br>X5 (MAX dilution) urine | | >40 mg/dL plasma/serum<br><br>>150 mg/dL urine | < 2 mg/dL plasma, serum and urine |
| **CAR (TEG)** | 2-20 µg/mL | 2-40 µg/mL | Saline | X2 (MAX dilution) | Reanalyze specimens reported out as SUPPRESSED due to RXN ERROR | >40 µg/mL | <2 µg/mL |
| **CHOL** | 5 – 1000 mg/dL Straight (5-750) Ordac (600-1000) | 5-2000mg/dL | Saline | X2 (MAX dilution) | | >2000 mg/dL | <5 mg/dL |
| **CK** | 5 – 4100 IU/L Straight (5-1200) Ordac (860-4100) | 5-20500 IU/L | Saline | X5 (MAX dilution) | | >20500 IU/L | < 5 IU/L |

| Test | Analytical Measurement Range (AMR) | Reportable Range | Acceptable | Test | Analytical Measurement Range (AMR) | Reportable Range | Acceptable |
|---|---|---|---|---|---|---|---|
| **CL** | Serum/plasma /BF<br>50-200 mmol/L<br><br>Urine<br>15-300 mmol/L | 50-200 mmol/L serum, plasma and BF<br><br>15-1500 mmol/L urine | N/A<br><br>DI water (NERL) | DO NOT DILUTE serum/plasma/BF<br><br>X5 (MAX dilution) urine | | >200 mmol/L serum/plasma /BF<br><br>>1500 mmol/L urine | <50 mmol/L Serum, plasma and BF<br><br><15 mmol/L urine |
| **$CO_2$** | 5 – 50 mmol/L | 5-100 mmol/L | DI water (NERL) | X2 (MAX dilution) | | >100 mmol/L | <5 mmol/L |
| **CREA** | Serum/plasma<br>0.1 – 25 mg/dL<br><br>Urine<br>10 – 400 mg/ dL | 0.1-50 mg/dL serum and plasma<br><br>10-2000 mg/dL urine | Saline | X2 (MAX dilution) serum/plasma<br><br>X5 (MAX dilution) urine | 3+ lipemia: run ultracentrifuged specimen<br><br>Cloudy urines should be centrifuged before testing | >50 mg/dL serum/plasma<br><br>>2000 mg/dl Urine<br><br>>400 mg/dL Urine(for DSUs) | < 0.1 mg/dL serum and plasma<br><br><10 mg/dL urine |
| **CRP** | 0.5 – 48.8 mg/dL<br>Straight (0.5-20)<br>Ordac (15-48.8) | 0.5-97.6 mg/dL | Saline | X2 (MAX dilution) | IF ≥2 Index Lipemia ultracentrifuge and repeat.<br>IF "Results Suppressed, Blank Rate-High" DO NOT DILUTE & reassay. Send to PAML. | >97.6 mg/dL | <0.5 mg/dL |
| **D BIL** | 0.1 -10.0 mg/dL | 0.1-20 mg/dL | Azide free human serum albumin | X2 (MAX dilution) | | >20 mg/dL | < 0.1 mg/dL |
| **CYCLO** | 25 – 450 ng/Ml | 25 900 ng/mL | Cyclosporine free whole blood | X2(MAX dilution) | Toxic >400 ng/mL | >900 ng/mL | <25 ng/mL |

| Test | Analytical Measurement Range (AMR) | Reportable Range | Acceptable Diluent | Maximum Manual Dilutions | Special Notes | Upper Limit report as | Lower Limit report as |
|---|---|---|---|---|---|---|---|
| **ETOH** | 5 – 600 mg/dL plasma/serum/ urine | 5 – 1200 mg/dL plasma/serum/ urine | ETOH Cal 1 | X2 (MAX dilution) for plasma/serum/urine | | >1200 mg/dL plasma/serum/ urine | <5 mg/dL Plasma/ serum / urine |
| **FE (IRON)** | 5 – 500 µg/mL | 5 – 500 µg/mL | N/A | DO NOT DILUTE | | >500 µg/mL | < 5 µg/mL |
| **GENT** | 0.5 – 12.0 µg/mL | 0.5-24.0 µg/mL | See Manual Dilution Column | >12.0 ug/mL specimens: Dilute with saline X2 (MAX dilution)<br><br>**<0.1** ug/mL specimens: Dilute 1:2 with Multiqual 1 & if value X2 does not match value of known sample, **send to PAML,** if does match, report **<0.5** | | >24.0 µg/mL | <0.5 µg/mL |
| **GGT** | 5 – 3000 IU/L Straight (5 – 750) Ordac (550-3000) | 5-15000 IU/L | Saline | X5 (MAX dilution) | | >15000 IU/L | < 5 IU/L |
| **GLUC(m)** | 3-1200 mg/dL Plasma/CSF/BF/ Urine<br><br>Straight (3-600) Ordac (300-1200) | 3-2400mg/dL | Saline | X2 (MAX dilution) | | >2400 mg/dL Plasma/CSF/BF /Urine | <3 mg/dL Plasma/CSF/ BF/Urine |
| **HDL** | 5 – 135 mg/dL | 5-270 mg/dL | Saline | X2 (MAX dilution) | | >270 mg/dL | <5 mg/dL |

| Test | Analytical Measurement Range (AMR) | Reportable Range | Acceptable Diluent | Maximum Manual Dilutions | Special Notes | Upper Limit report as | Lower Limit report as |
|---|---|---|---|---|---|---|---|
| **K** | 1.0-15.0 mmol/L Serum/plasma<br><br>Urine 2-300 mmol/L | 1.0-15.0 mmol/L serum and plasma<br><br>2-600mmol/L | N/A<br><br>Saline | DO NOT DILUTE Serum/plasma<br><br>X2 (MAX dilution) urine | | >15.0 mmol/L Serum/plasma<br><br>>600 mmol/L urine | < 1.0 mmol/L Serum and plasma<br><br>< 2 mmol/L urine |
| **LACT** | 0.3-11.0 mmol/L Plasma/CSF | 0.3-22.0 mmol/L | Saline | X2 (MAX dilution) | | >22.0 mmol/L | < 0.3 mmol/L |
| **LD** | 5 – 2700 IU/L Straight (5-750) Ordac (600-2700) | 5 – 13500 IU/L | Saline | X5 (MAX dilution) | | >13500 IU/L | < 5 IU/L |
| **LDLD** | 10-550mg/dL | 10-550mg/dL | | DO NOT DILUTE | | >500 mg/dL | <10 mg/dL |
| **LIP (LIPASE)** | 10 – 400 U/L<br><br>Straight (10-200) Ordac (180-400) | 10-2000 U/L | patient sample of known low lipase value | Dilute specimens with "out of range high values" with patient sample of known low lipase value and reanalyze. X5 (MAX dilution) | | >2000 U/L | <10 U/L |
| **LI LITHIUM** | 0.1 – 3.0 mmol/L | 0.1 - 6.0 mmol/L | Saline | X2 (MAX dilution) | ORDAC NOT TURNED ON. EDTA the only acceptable anticoagulant. | >6.0 mmol/L | <0.1 mmol/L |
| **M-TP** | 6 – 300 mg/dL CSF<br><br>6 – 150 mg/dL Urine | 6 – 600 mg/dL CSF<br><br>6 – 750mg/dl Urine | Saline<br><br>Saline | X2 (MAX dilution) CSF<br><br>Urine (NO MAX DILUTION) | **IF** serum protein carryover is suspected, run saline blanks prior to analysis of test specimen. | >600 mg/dL CSF<br><br>Urine Dilute to final result | < 6.0 mg/dL CSF and Urine |

| Test | Analytical Measurement Range (AMR) | Reportable Range | Acceptable Diluent | Maximum Manual Dilutions | Special Notes | Upper Limit report as | Lower Limit report as |
|---|---|---|---|---|---|---|---|
| **MA** | 0.2 - 97mg/dL Ordac (24 – 97) Urine Only | 0.2 – 485mg/dL | Saline | (NO MAX DILUTION) | | Dilute to final result | <0.2 mg/dL |
| **MG** | 0.1 – 7.0 mg/dL serum/plasma | 0.1 – 14.0 mg/dL | Saline | X2 (MAX dilution) | | >14.0 mg/dL | < 0.1 mg/dL |
| **NA** | 100-200 mmol/L Serum/plasma<br><br>10 – 300 mmol/L Urine | 100-200 mmol/L serum and plasma<br><br>10-1500 mmol/l urine | N/A<br><br>DI water (NERL) | DO NOT DILUTE serum/plasma<br><br>X5 (MAX dilution) Urine | | >200 mmol/L serum/plasma<br><br>>1500 mmol/L urine | < 100 mmol/L Serum and plasma<br><br><10 mmol/L urine |
| **PHE** | 5.0 – 80.0 mg/dL | 5.0 -160.0 mg/dL | Saline | X2 (MAX dilution) | | >160.0 mg/dL | < 5 mg/dL |
| **PHY** | 2.5 – 40 µg/mL | 2.5- 80 µg/mL | Saline | X2 (MAX dilution) | Reanalyze specimen reported out as SUPPRESSED due to RXN ERROR | >80 µg/mL | < 2.5 µg/mL |

| Test | Analytical Measurement Range (AMR) | Reportable Range | Acceptable Diluent | Maximum Manual Dilutions | Special Notes | Upper Limit report as | Lower Limit report as |
|---|---|---|---|---|---|---|---|
| **PHOSm** | 0.5 – 12.0 mg/dl Serum/plasma<br><br>5 – 140 mg/dL Urine | 0.5 – 24.0 mg/dL<br><br>5 – 1400 mg/dL | Saline<br><br>Saline | X2 (MAX dilution)<br><br>Urine : Must run 1:10 dilution of sample/control. Multiply by 10 before reporting result. X10 (MAX dilution of original 1:10 result.) | Interference may occur with specimens from patients with abnormal immunoglobulin synthesis (e.g. multiple myeloma). Some of these specimens may precipitate out when mixed with reagent, causing "rxn noise" errors. In an event such as this: 1. Dilute specimen 1:2 with saline and reanalyze. 2. If "rxn noise" still occurs, dilute specimen 1:2 with 12% TCA (Trichloroacetic acid) centrifuge and analyze the supernatant. | >24.0 mg/dL<br><br>>1400mg/dL | < 0.5 mg/dL<br><br>< 5 mg/dL |
| **PREALB** | 2 – 60 mg/dL | 2- 120 mg/dL | DI H20 (NERL) | X2 (MAX dilution) | | >120 mg/dL | <2 mg/dL |
| **SALY** | 4-100 mg/dL | 4-200 mg/dL | Saline | X2 (MAX dilution) | | >200 mg/dL | <4 mg/dL |
| **T BIL** | 0.1 – 30 mg/dL | 0.1 – 60 mg/dL | Azide free human serum albumin | X2 (MAX dilution) | | >60mg/dL | < 0.1 mg/dL |
| **TRIG** | 10 – 1000 mg/dL | 10 – 10000 mg/dL | Saline | For Lipemia Index less than 9, dilute X5 (MAX dilution)<br><br>For Lipemia Index 9 or greater, dilute X10 (MAX dilution) | Lipemia of Index 9 or greater may result in falsely decreased results. | Report >5000 mg/dL (for Lipemic Index less than 9)<br><br>Report >10,000 mg/dl (for Lipemic Index 9 or greater) | < 10 mg/dL |

| Test | Analytical Measurement Range (AMR) | Reportable Range | Acceptable Diluent | Maximum Manual Dilutions | Special Notes | Upper Limit report as | Lower Limit report as |
|---|---|---|---|---|---|---|---|
| **THEO** | 2 – 40 µg/mL | 2-80 µg/mL | Saline | X2 (MAX dilution) | | >80 µg/mL | < 2 µg/mL |
| **TPm** | 1.0 –12.0mg/dL Serum, plasma or BF<br><br>Serum/plasma or Body fluids ONLY.<br><br>NO CSF or Urine | 1.0- 24.0 mg/dL | Saline | X2 (MAX dilution) | Specimens with high immunoprotein should be diluted 1:2 and reanalyzed. | >24.0 mg/dL | <1 mg/dL |
| **TRFN** | 70 – 850 mg/dL | 70 – 1700 mg/dL | Saline | X2 (MAX dilution) | | >1700 mg/dL | <70 mg/dL |
| **TTCA** | 0-800 ng/mL Serum/plasma | 0-800 ng/mL | N/A | DO NOT DILUTE | Semi-quantitative test Reported as:<br>0-300 ng/mL<br>300-500 ng/mL<br>500-700 ng/ml<br>700-800 ng/mL<br>>800 ng/mL | >800 ng/mL | Reported as 0-300ng/mL |
| **URIC** | 0.5 – 21.0 mg/dL Serum/plasma Straight (0.5 – 12.0) Ordac (9.0-21.0)<br><br>5 – 120 mg/dL Urine | 0.5 – 42 mg/dL<br><br>5 – 600 mg/dL | Saline<br><br>Saline | X2 (MAX dilution)<br><br>X5 (MAX dilution) | Need DIL 1 on DXC since analyzer auto dilutes 1:10 | >42 mg/dL<br><br>>600 mg/dL | < 0.5 mg/dL<br><br>< 5 mg/dL |

| Test | Analytical Measurement Range (AMR) | Reportable Range | Acceptable Diluent | Maximum Manual Dilutions | Special Notes | Upper Limit report as | Lower Limit report as |
|---|---|---|---|---|---|---|---|
| **VALP** | 10 – 150 ug/mL | 10-300 ug/mL | See Manual Dilution Column | >150 ug/mL specimens: Dilute with saline X2 (MAX dilution)<br><br><10 ug/mL specimens: Dilute 1:2 with Multiqual 1 & if value X2 does not match value of known sample, send to PAML, if does match, report <10 | Reanalyze specimens reported out as SUPPRESSED due to RXN ERROR | >300 ug/mL | <10 ug/mL |
| **VANC** | 3.5 – 60 ug/mL<br>Straight (3.5 – 40)<br>Ordac (30 – 60) | 3.5 – 120 ug/mL | See Manual Dilution Column | >60 ug/mL<br><br>specimens: Dilute with saline X2 (MAX dilution)<br><br><0.1 ug/mL specimens: Dilute 1:2 with Synchron 2 & if value X2 does not match value of known sample, send to PAML, if does match, report <3.5 | | >120 ug/mL | <3.5 ug/mL |

| **DOCUMENT APPROVAL** **Purpose of Document / Reason for Change:** | | | |
|---|---|---|---|
| 3/5/2013 – ETOH unit of measure and decimal point changes. ETOH unit of measure changed from g/dL to mg/dL and with zero decimal points. | | | |
| ☐ *No significant change to process in above revision. Per CAP, this revision does not require further Medical Director approval.* | | | |
| **Committee Approval Date** | ☐ Date:<br>☐ N/A – revision of department-specific document which is used at only one facility | **Medical Director Approval** *(Electronic Signature)* | Linda D. Blankenhardt, MD **3/10/13** |