**TITLE: Comparability of Instrument/Method 4840-CH-280**

**PRINCIPLE:**

To check the correlations between instruments/methods.

**SPECIMENS:**

Use a minimum of three samples for each analyte that is run routinely on both analyzers/instruments.

**CALIBRATION:**

Refer to the procedure for each analyte.

**QUALITY CONTROL:**

Refer to the chemistry Quality Control Procedure.

**PROCEDURE:**

**Perform the CAP’s Quality Cross-Check Chem/TDM (CZQ) as directed. Submit results by the deadline and review graded performance. Follow-up all results which are outside the acceptable limits.**

**Alternate method if CAP CZQ is not utilized:**

1. Identify all tests which are routinely run on both analyzers
2. Select a minimum of three samples which include normal and abnormal results
3. Manually program the samples to run on the chemistry analyzer #1
4. When the samples are completed, manually program the same samples on analyzer #2.
5. Print all results
6. Calculate the correlation using the EP Evaluator program.
7. Review the results using the CAP’s “limits of acceptability” to determine if the correlation values are within the acceptable range.

**RESULTS:**

1. If results are within the acceptable range the study is complete.
2. If an analyte is not within the acceptable range, follow up by replacing reagents, recalibration, running QC and repeating the correlation.
3. If results are still unacceptable call the instrument hotline for further troubleshooting

CAP’s Evaluation Criteria

(Based on Participant Summary reports)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Analyte** | **Evaluation Limit** |  | **Analyte**  | **Evaluation Limit** |
| Acetaminphen | +10% |  | DLDL | +30% |
| Alcohol | +25% |  | Lipase | +30% |
| Albumin | +10% |  | Lithium | +3 SD |
| Alk Phos | +30% |  | Myoglobin | 20% |
| ALT | +20% |  | Magnesium | +25% |
| Ammonia | +20% |  | MTX | +3 SD or 10% |
| Amylase | +30% |  | Phenobarb | +20% |
| AST | +20% |  | Phenytoin | +25% |
| BNP | +10% |  | PSA | +0.4ng/mL or 3 SD |
| BUN | +2.0mg/dL or 9% |  | PCT | +3 SD |
| DBili | +0.4mg/dL |  | Phosphorus | +0.3mg/dL or 10.7% |
| Estradiol | 20% |  | Potassium | +0.5 mmol/L |
| Folate | 20% |  | Progesterone | +3 SD |
| Total Bili | +0.4mg/dL |  | Salicylate | +3 SD or 10% |
| CEA | +3 SD |  | Sodium | +4.0 mmol/L |
| Calcium | +1.0mg/dL |  | Total Protein | +10% |
| Carbamazepine | +25% |  | Trop | +0.3 ng/mL or 3 SD |
| Chloride | +5% |  | Tobramycin | +25% |
| Cholesterol | +10% |  | Theo | +25% |
| CO2 | +3 SD% |  | TSH | +3 SD |
| Cortisol | +25% |  | Transferrin | +20% |
| CPK | +30% |  | Trig | +25% |
| Creatinine | +0.3 or 15% |  | Uric Acid | +17% |
| Digoxin | +0.2 or 20% |  | Valproic Acid | +25% |
| Ferritin | +3 SD |  | Vancomycin | +3 SD or 10% |
| Free T3 | +3SD |  | CA-125 | 20% |
| Free T4 | +3 SD |  | CA-153 | 20% |
| Gent | +25% |  | CA-199 | 20% |
| GGT | +3 SD |  | Ha1c | +20% or 3 SD |
| Glucose | +6mg/dL or 10% |  | Vitamin B12 | +3 SD |
| BhCG | +3 SD |  | Vitamin D25-OH | 20% |
| iPTH | +20% |  | IgG | +25% |
| HDL | +30% |  | IgA, IgM | +3 SD |
| Iron | +20% |  | C3, C4 | +3 SD |
| Lactate | +0.4 mmol/L  |  | CRP | +0.3 or 2 SD |
| LDH | +20% |  |  |  |

For Analytes not listed above the Evaluation limit is +20%