Cross-reactivity to folate analogs and others, cont.

Tetrahydrofolic Acid	1000
Vinblastine	1000
Vincristine	1000

Performance Characteristics

Analytical Measurement Range

The ARK Methotrexate Assay for the determination of MTX provides the following analytical range:

Analytical Measurement Range (AMR)

Sample Type	Conventional Units
Serum or Plasma	0.04 – 1.20 µmol/L

Clinical Reportable Range:

Clinical Reportable Range (CRR) as determined at UCDMC

Sample Type	Conventional Units
Serum or Plasma	0.04 – 1000.00 µmol/L

Samples with concentrations below the AMR and CRR (0.04 µmol/L) will be reported as "**< 0.04 µmol/L**."

Samples with concentrations greater than the AMR (> 1.20 µmol/L) will be diluted following the Manual Dilution Protocol below.

Diluted samples with concentrations greater than the CRR (> 1000.00 µmol/L) will be reported as "**>1000.00 µmol/L**".

D7 and D8 units should be notified that Methotrexate results are available in EMR. This applies to the first three Methotrexate results per admission from D7 and D8 PEDIATRIC patients ONLY. The canned text **MTXCALL** should be used; note whether the HUSC, RN or Charge Nurse was notified.

Manual Dilution Protocol for Methotrexate:

Manually dilute the specimen with ARK Methotrexate Dilution Buffer by preparing a series of 10-fold dilutions as shown below. Program the dilutions in Remisol using the dilution factors in the following chart, and run all three dilutions at the same time.

Sample Volume		Dilution Buffer Volume	Dilution	Dilution Factor
50 µL	Undiluted sample	450 µL	1:10	10
50 µL	1:10 sample	450 µL	1:100	100
50 µL	1:100 sample	450 µL	1:1000	1000

Analytical Sensitivity

Analytical sensitivity is defined as the lowest measurable concentration which can be distinguished from zero with 95% confidence. When run as recommended, the analytical sensitivity for the ARK Methotrexate Assay method is 0.04 µmol/L.