University of California, Davis Health System Department of Pathology and Laboratory Medicine Automated Chemistry/Urinalysis

Vancomycin (VANC) – Serum, Plasma Beckman UniCel DxC Systems **Technical Procedure 3161**

Prednisolone	340	NSI
Rifampin	290	NSI
Salicylic acid	775	NSI
Sulfamethoxazole	500	NSI
Tetracycline	500	NSI
Tobramycin	525	NSI
Trimethoprim	505	NSI

^a Data shown was collected using SYNCHRON CX Systems. Equivalency between SYNCHRON LX Systems has been established by Deming regression analysis to SYNCHRON CX Systems.

Performance Characteristics

Analytical Measurement Range

The UniCel DxC System(s) method for the determination of vancomycin provides the following analytical range.

Analytical Measurement Range (AMR)

Sample Type	Range (µg/mL)
Serum or Plasma	3.5 – 40 μg/mL
Serum or Plasma (ORDAC)	30 – 60 μg/mL



Clinical Reportable Range

Clinical Reportable Range (CRR) as determined at UCDMC

Sample Type	Range (µg/mL)
Serum or Plasma	3.5 – 60 μg/mL

Samples with concentrations greater than the AMR (> 40 µg/mL) will be rerun using the ORDAC function.

Samples with concentrations > 60 μ g/mL are to be verified by diluting X2 with saline and reanalyzed. Diluted results can be reported out up to the Clinical Reportable Range (60 μ g/mL).

Results from dilution exceeding the CRR are to be reported as "> 60 ug/mL".

The analytical reportable range of this assay is $3.5-60~\mu g/mL$. Low VANC results from the instrument are set to "print" below the analytical limit down to the lowest reportable limit of $0.1~\mu g/mL$. All samples with results below $0.1~\mu g/mL$ ("less than" or "suppressed OIR low") will need to be confirmed by dilution. (The messages window on the Remisol Data Manager screen will request that you make an offline dilution with ChemTrak 3) Printed results between $0.1~\mu g/mL$ and $3.4~\mu g/mL$ do not need to be confirmed by dilution and are reported as "< $3.5~\mu g/mL$ ".

Dilution protocol: Confirm a suspected low VANC sample result by adding one measured volume of test sample to an equal volume of a sample with known VANC concentration (MAS ChemTrak 3). The assayed VANC result multiplied by 2 of this diluted sample should be within ± 2SD of MAS ChemTrak 3 VANC mean. If the multiplied assayed result of the diluted sample is not within the acceptable control range, the VANC sample should be reported out as "*Unable to determine due to unknown interferences.*" (canned text GINT). If the multiplied assayed result is within acceptable control range, manually enter the value 1.0 in Remisol as the VANC result. It will be reported as "< 3.5 μg/mL" in LIS.

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^b NSI = No Significant Interference (± 2.6 μg/mL).