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

Sodium (Na) – Serum, Plasma, Urine, Dialysate Solutions Beckman UniCel DxC Systems **Technical Procedure 3145**

Clinical Reportable Range:

Clinical Reportable Range (CRR)

Sample Type	Conventional Units	S.I. Units
Serum/Plasma/Fluids	100 - 200 mmol/L	100 - 200 mmol/L
Urine	10 - diluted result mmol/L	10 - diluted result mmol/L

Serum/plasma/fluid samples with concentrations below the AMR and CRR (< 100 mmol/L) are reported as "< 100 mmol/L". Serum/plasma/fluid samples with concentrations greater than the AMR and CRR (> 200 mmol/L) are reported as "> 200 mmol/L".

Urine samples with concentrations below the AMR and CRR (< 10 mmol/L) are reported as "< 10 mmol/L" Urine samples with concentrations greater than the AMR (> 300 mmol/L) are diluted with deionized water and reanalyzed.

For dilutions programmed in Remisol: the final calculated result from a dilution will not be calculated by the UniCel DxC system but by Remisol.

Sensitivity

Sensitivity is defined as the lowest measurable concentration which can be distinguished from zero with 95% confidence. Sensitivity for NA determination is 100 mmol/L for serum or plasma, and 10 mmol/L for urine. Urine results less than 10 mmol/L are reported as < 10 mmol/L.

Equivalency

Equivalency was assessed by Deming regression analysis of patient samples to accepted clinical methods.

As determined by Beckman.

Serum or Plasma (in the range of 104 to 200 mmol/L):

Y (Unicel DxC Systems)	= 1.012X - 0
N	= 149
MEAN (UniCel DxC Systems)	= 141.7
MEAN (SYNCHRON LX Systems)	= 140.7
CORRELATION COEFFICIENT (r)	= 0.997

Urine (in the range of 18 to 294 mmol/L):

= 1.017X - 1.57
= 110
= 125.3
= 124.8
= 0.999

Refer to References (11) for guidelines on performing equivalency testing.

Equivalency assessed by Deming regression analysis of patient samples to accepted clinical methods.

As determined at UCDMC.

Serum or Plasma (in the range of 104 to 163 mmol/L):

Y (UniCel DxC800-4118)	= 1.041X - 6.7
N	= 31
MEAN (UniCel DxC800-4118)	= 136.1
MEAN (UniCel DxC800-1805)	= 137.2
CORRELATION COEFFICIENT (r)	= 0.9973