












BIOCHEMISTRY

BLOOD - SERUM	Result	Range	Units	
UEC (Renal)				
SODIUM	141	135 - 145	mmol/L	
POTASSIUM	5.0	3.5 - 5.5	mmol/L	
CHLORIDE	98	95 - 110	mmol/L	
BICARBONATE	24	21 - 32	mmol/L	
Anion Gap	24 *H	8 - 16	mmol/L	
UREA	6.3	3.0 - 8.0	mmol/L	
CREATININE (mmol/L)	0.09	0.05 - 0.10	mmol/L	
Creatinine	89	45 - 100	umol/L	
Estimated GFR	64	> 60	ml/min	

UEC Comment

ELEVATED ANION GAP:

A high anion gap indicates metabolic acidosis. In uncontrolled diabetes, there is an increase in ketoacids due to metabolism of ketones. In these conditions, bicarbonate concentrations decrease by acting as a buffer against the increased presence of acids (as a result of the underlying condition). The bicarbonate is consumed resulting in a high anion gap.

Examples of metabolic acidosis include:

Lactic acidosis, Ketoacidosis, Diabetic ketoacidosis, Alcohol abuse.

Toxins Exposure: Methanol, Ethylene glycol, Propylene glycol, Lactic acid, Uremia, Aspirin, Iron Cyanide.

Renal failure; causes high anion gap acidosis by decreased acid excretion and decreased HCO₃⁻ reabsorption. Accumulation of sulfates, phosphates, urate, and hippurate also accounts for a high anion gap.

eGFR : ≥ 60 mL/min/1.73 sq.m - Does not exclude mild renal impairment, or kidney diseases without renal impairment.