
Formula

Commonly Used Clinical Chemistry Formulas

Albumin : Globulin Ratio (AGR)

- $\text{Albumin (ALB)} / (\text{Total Protein (TP)} - \text{Albumin (ALB)})$

Anion Gap (AGP)

- $(\text{Sodium (NA)} + \text{Potassium (K)}) - (\text{Chloride (CL)} + \text{Bicarbonate (CO}_2))$

Calculated Serum Osmolarity

- $(2 \times \text{Sodium (NA)}) + \text{Glucose (GLU)} + \text{Urea (URE)}$

Corrected Calcium (CAC)

- $\text{Calcium (CA)} - (0.02 \times \text{Albumin (ALB)}) + 0.87$ **[Only applicable for Albumin which is ≥ 20 g/L to 50 g/L]**

Indirect Bilirubin (IB)

- $\text{Total Bilirubin (TBIL)} - \text{Direct Bilirubin (DB)}$

Iron Saturation (FESAT)

- $\text{Iron (FE)} \times 100 / \text{Total Iron Binding Capacity (TIBC)}$

LDL Calculated (LDLC)

- $\text{Cholesterol (CHOL)} (\text{mmol/L}) - \text{HDL Cholesterol (HDL)} (\text{mmol/L}) - \text{Triglycerides (TG)} (\text{mmol/L}) / 2.2$

Osmolar Gap

- $\text{Measured Osmolarity (OSM)} - \text{Calculated OSM}$

Total Iron Binding Capacity (TIBC)

- $0.26 \times \text{Transferrin (TRF)} (\text{mg/dl})$

Albumin : Creatinine Ratio Urine (ACR)

- $\text{Albumin : Creatinine Ratio Urine (ACRU)} (\text{mg/g}) = \text{Albumin Urine (ALBU)} (\text{mg/L}) / (\text{Creatinine Urine (CREU)} (\text{mmol/L}) \times 0.113)$
- $\text{Albumin : Creatinine Ratio Urine (UACR1)} (\text{mg/mmol}) = \text{Albumin Urine (ALBU)} (\text{mg/L}) / \text{Creatinine Urine (CREU)} (\text{mmol/L})$

Creatinine Clearance Test (CCT)

- $\text{Creatinine Urine (CREU)} (\text{mmol/L}) \times 1000 \times \text{Total Urine Volume (TUV)} (\text{mL}) / \text{Creatinine (CRE)} (\text{umol/L}) \times 1440$

Protein : Creatinine Ratio Urine (PCR)

- Protein, Total Urine Excretion (eUTP) (g/day) = Total Protein, Urine (TPU) (g/L) / (CreatinineUrine (CREU) (mmol/L) X 0.113)
- Protein : Creatinine Ratio, Urine (UPCR) (g/mmol) = Total Protein, Urine (TPU) (g/L) / Creatinine Urine (CREU) (mmol/L)
- Protein : Creatinine Ratio, Urine (UPCR4) (mg/mmol) = Total Protein, Urine (TPU) (g/L) X 1000 / Creatinine Urine (CREU) (mmol/L)