# Anion Gap

## INPUTS

|  |  |
| --- | --- |
| Sodium | **Options:** |
| Chloride | **Options:** |
| Bicarbonate | **Options:** |
| Albumin | **Options:** |

## FORMULA

Anion gap, mEq/L = sodium, mEq/L - (chloride, mEq/L+ bicarbonate, mEq/L)

Albumin corrected anion gap, mEq/L = anion gap + [ 2.5 × (4 - albumin, g/dL) ]

Delta gap, mEq/L = anion gap - 12\*

Albumin corrected delta gap, mEq/L = albumin corrected anion gap - 12

Delta ratio = delta gap / (24 - bicarbonate, mEq/L)

Albumin corrected delta ratio = albumin corrected delta gap / (24 - bicarbonate, mEq/L)

\*Normal anion gap.

## FACTS & FIGURES

Interpretation:

|  |  |
| --- | --- |
| **Delta ratio** | **Suggests...** |
| <0.4 | Hyperchloremic normal anion gap acidosis |
| <1 | High AG & normal AG acidosis |
| 1 to 2 | Pure anion gap acidosis  Lactic acidosis: average value 1.6  DKA more likely to have a ratio closer to 1 due to urine ketone loss |
| >2 | High AG acidosis and a concurrent metabolic alkalosis or a pre-existing compensated respiratory acidosis |

## EVIDENCE APPRAISAL