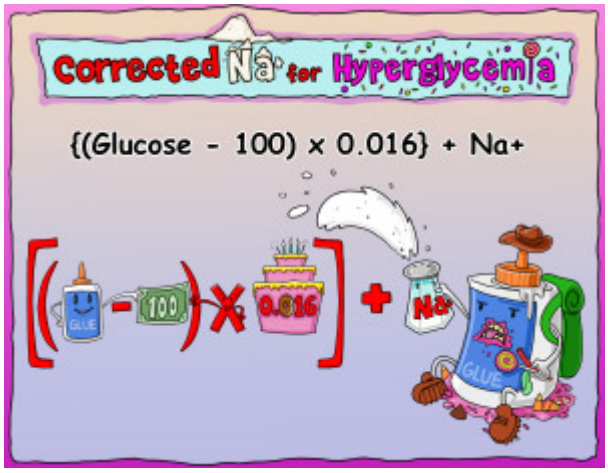
Corrected Na+ for Hyperglycemia

When a patient has marked hyperglycemia, the extracelular fluid (ECF) osmolality rises and exceeds that of the intracellular fluid (ICF). This occurse becasue glucose penetrates cell membranes slowly in the absence of insulin, resulting in movement of water out of cells into the ECF. Thus, when patients have hyperglycemia, sodium values must be corrected, to give the true value. Furthermore, no specific therapy is indicated, because the Na concentration will return to normal once the plasma glucose concentration is lowered.



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Equation

[(Glucose-100) * 0.016] + Na+
[(Glue-bottle - 100) x Sweet 16] + Salt-shaker
The equation to correct sodium in hyperglycemia is [(Glucose-100) * 0.016] + Na. This is because serum Na concentration falls in proportion to the dilution of the ECF, declining 1.6 mEq/ L for every 100 mg/dL increment in the plasma glucose level above normal.

Steps

Glucose-100
Glue-bottle - 100 dollar bill
First, take the patient's glucose value, and subtract 100.

Multiply * 0.016
Sweet 16 cake
Multiply the value against 0.016.

Add Na+
Salt-shaker
Add the value to the patient's given sodium level. This will give the corrected sodium level.

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