

Renal Vignettes – acid base balance

Primary Metabolic Alkalosis

HUMAN vignettes are brief, highly targeted exercises aimed at reinforcing single basic physiological points. A fuller more open ended exercise in acid-base balance can be found in the Acid-Base Balance exercise link on this same page.

A metabolic alkalosis may be induced in HUMAN via a bicarbonate infusion as follows:

a) Set tables under View Output: for acid-base output (and possible use in plotting on a Davenport diagram)

PH, PCO2A, BICARB, AVENT, IFMIN, UPH (note: look each of these up in Help info on:)
In Patient Charts .. on each run ask for a Kidney Summary.

b) Set up the infusion (note order in which variables are set)

1) IFMIN = 60 2) IFBIC = 240 (Run for 0 min, 0 printouts) 3) IFVOL = 1000

c) run for 1H, 10 (min) between print outs

d) Characterize acid-base status at 0.0, 0.5 & 1.0 hour (by a Davenport plot if appropriate), identify the primary acid base problem and secondary compensations (if present).

View Output:

PH [dropdown] PCO2A [dropdown] BICARB [dropdown] AVENT [dropdown] IFMIN [dropdown] UPH [dropdown]
as: text [dropdown] text [dropdown] text [dropdown] text [dropdown] text [dropdown] text [dropdown]

Experiment Controls

Change Variable	Enter New Value	Info on Variable
IFBIC [dropdown]	240	mMol/L
IFMIN [dropdown]	60	Minutes

Run Experiment:
for 0 minutes at 0 minute intervals.
[Go] [Start Over]

Help

Help info on: Choose [dropdown]
Tips: How Do I? [dropdown]

View

Variable Value: Choose [dropdown]
Patient Charts or Lab tests: Kidney Summary [dropdown]
Graph Style Size: 600 [dropdown]
Normalized, one graph [dropdown]

Initial setup – first screen