

Renal Vignettes – acid base balance

Primary Metabolic Acidosis

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 acidosis may be induced in HUMAN by increasing the basic level of acid production 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, BACID, UPH (note: look each of these up in Help info on:)
In Patient Charts .. on *each* run ask for a Kidney Summary.

Now execute a baseline run running for 0 min. w/ 0 min. between printouts.

b) Increase the basic level of acid production (note: look BACID up in Help info on:)

1) Use 10 times the normal basic acid production level

c) run for 7H with 1H (hour) between print outs

d) Characterize acid-base status at 0, 4 & 7 hour (by a Davenport plot if appropriate), identify the primary acid base problem and secondary compensations (if present).

The screenshot displays the 'View Output:' section with dropdown menus for PH, PCO2A, BICARB, AVENT, BACID, and UPH, each set to 'text'. Below this is the 'Experiment Controls' section, which includes a table for changing variables and a 'Run Experiment' section.

Change Variable	Enter New Value	Info on Variable
BACID	720	72 mMol/day
Choose		

Run Experiment:
for 7h minutes at 1h minute intervals.

Buttons: Go, Start Over

Help
Help info on: BACID
Tips: How Do I?

View
Variable Value: Choose
Patient Charts or Lab tests: Kidney Summary

Graph Style: Normalized, one graph
Size: 600

Initial setup – 2nd screen