

Supplemental Materials TOC

Supplemental Table 1

Supplemental Table 2

Supplemental Table 1: Association between the acid load from medications and use of metformin or gabapentin with acid-base variables, with additional adjustment for use of calcium containing medications.

Independent Variable	Each SD Higher (7mEq H ⁺ Load)	High vs Low Acid Load	Metformin Use*	Gabapentin Use^
Serum Measurement				
Total CO ₂ (meq/L)	-0.7 (-1.3 to 0.0)	-1.7 (-3.0 to -0.4)	-1.1 (-2.3 to 0.1)	-0.9 (-2.2 to 0.5)
Odds of total CO ₂ ≤ 23 mEq/L	1.78 (0.89 to 3.53)	4.78 (1.08 to 21.1)	1.69 (0.49 to 5.74)	1.42 (0.38 to 5.34)
Anion Gap (meq/L)	0.9 (0.3 to 1.6)	1.96 (0.7 to 3.2)	1.5 (0.3 to 2.7)	0.8 (-0.5 to 2.1)
Lactate (mmol/L)	0.1 (-0.2 to 0.3)	0.3 (-0.2 to 0.8)	0.3 (-0.2 to 0.7)	0.0 (-0.5 to 0.5)
Urine Measurement				
Ammonium (meq/d)	2.5 (-1.7 to 6.7)	3.1 (-5.5 to 11.6)	3.4 (-4.5 to 11.3)	1.5 (-6.9 to 9.9)
Titrateable Acid (meq/d)	-0.5 (-3.4 to 2.5)	0.4 (-5.7 to 6.5)	-2.6 (-8.3 to 3.0)	-2.3 (-8.2 to 3.7)
Urine pH	0.0 (-0.1 to 0.1)	-0.1 (-0.3 to 0.2)	0.0 (-0.2 to 0.2)	-0.1 (-0.3 to 0.2)

Models adjusted for the following variables: age, estimated glomerular filtration rate, urinary albumin/creatinine, use of angiotensin converting enzyme inhibitors or angiotensin receptor blockers, diuretic use, serum potassium concentration, body mass index, estimated protein intake, self-reported history of lung disease, and use of calcium carbonate or calcium citrate.

Shown are the coefficients (95% confidence intervals).

*Includes individuals also taking gabapentin

^Includes individuals also taking metformin

Supplemental Table 2: Association between the use of metformin and gabapentin alone or in combination and acid-base variables, with additional adjustment for use of calcium containing medications.

Group	Metformin Use = No Gabapentin Use = No (n=32)	Metformin Use = Yes Gabapentin Use = No (n=18)	Metformin Use = No Gabapentin Use = Yes (n=9)	Metformin Use = Yes Gabapentin Use = Yes (n=15)
Potential Acid Load (meq/d)*	0.2 (0.5)	10.6 (3.3)	5.4 (3.1)	15.8 (5.6)
Serum Measurement				
Total CO ₂ (meq/L)	Reference	-0.7 (-2.3 to 0.8)	-0.1 (-2.4 to 2.1)	-1.7 (-3.4 to 0.0)
Chloride (meq/L)	Reference	-1.8 (-3.5 to -0.1)	0.1 (-2.4 to 2.6)	-0.9 (-2.8 to 1.0)
Sodium (meq/L)	Reference	-1.4 (-3.3 to 0.5)	-0.3 (-3.0 to 2.4)	-0.6 (-2.6 to 1.4)
Anion Gap (meq/L)	Reference	1.1 (-0.4 to 2.6)	-0.3 (-2.4 to 1.9)	2.0 (0.3 to 3.6)
Lactate (mmol/L)	Reference	0.0 (-0.6 to 0.6)	-0.5 (-1.4 to 0.3)	0.4 (-0.3 to 1.0)

Models adjusted for the following variables: age, estimated glomerular filtration rate, urinary albumin/creatinine, use of angiotensin converting enzyme inhibitors or angiotensin receptor blockers, diuretic use, serum potassium concentration, body mass index, estimated protein intake, self-reported history of lung disease, and use of calcium carbonate or calcium citrate.

Shown are the coefficients (95% confidence intervals).

*Shown as mean (SD)