

Supplemental Digital Content (SDC)

Table 1: Multiple regression analysis, allowing for opioids, ondansetron, patient BMI, PPI, esophagitis and age group (<1 vs. ≥1):

All patients:

Outcome	Dataset	Sedation	No sedation	p-value
% Time pH < 4	Full data	0.71 (0.34, 1.50)	0.65 (0.21, 1.99)	0.892
	Abridged data	0.56 (0.24, 1.29)	0.56 (0.16, 2.01)	0.990
	First 4 hours	0.30 (0.12, 0.74)	0.28 (0.07, 1.13)	0.951
Number of acid reflux episodes/hour	Full data	0.44 (0.26, 0.74)	0.37 (0.17, 0.79)	0.708
	Abridged data	0.38 (0.22, 0.65)	0.40 (0.18, 0.91)	0.905
	First 4 hours	0.33 (0.16, 0.72)	0.25 (0.08, 0.81)	0.704
Number of non-acid reflux episodes/hour	Full data	1.03 (0.76, 1.41)	0.63 (0.39, 1.01)	0.110
	Abridged data	1.01 (0.70, 1.46)	0.56 (0.32, 0.99)	0.114
	First 4 hours	1.18 (0.68, 2.03)	0.60 (0.26, 1.38)	0.215
Total number of reflux episodes/hour	Full data	1.83 (1.45, 2.32)	1.78 (1.24, 2.54)	0.895
	Abridged data	1.81 (1.42, 2.31)	1.80 (1.24, 2.60)	0.976
	First 4 hours	2.14 (1.54, 2.97)	1.93 (1.17, 3.18)	0.752

Patients aged ≥1:

Outcome	Dataset	Anesthesia	No sedation	p-value
% Time pH < 4	Full data	0.82 (0.32, 2.10)	1.34 (0.49, 3.65)	0.566
	Abridged data	0.49 (0.16, 1.44)	0.96 (0.30, 3.09)	0.487
	First 4 hours	0.50 (0.15, 1.62)	0.66 (0.19, 2.34)	0.789
Number of acid reflux episodes/hour	Full data	0.54 (0.30, 0.97)	0.87 (0.46, 1.63)	0.369
	Abridged data	0.38 (0.19, 0.75)	0.87 (0.42, 1.79)	0.184
	First 4 hours	0.53 (0.20, 1.41)	0.58 (0.20, 1.66)	0.920
Number of non-acid reflux episodes/hour	Full data	0.76 (0.51, 1.15)	0.55 (0.35, 0.85)	0.371
	Abridged data	0.71 (0.42, 1.20)	0.46 (0.26, 0.80)	0.356
	First 4 hours	0.91 (0.41, 2.03)	0.67 (0.28, 1.58)	0.675
Total number of reflux	Full data	1.50 (1.11, 2.03)	1.89 (1.37, 2.60)	0.403

Outcome	Dataset	Anesthesia	No sedation	p-value
	Abridged data	1.41 (1.00, 1.98)	1.72 (1.19, 2.47)	0.522
	First 4 hours	1.95 (1.31, 2.89)	2.68 (1.75, 4.10)	0.375

Table 2: Multiple regression analysis of differences, allowing for opioids, ondansetron, patient BMI, PPI, esophagitis and age group (<1 vs. ≥1):

All patients:

Outcome	Mean difference	p-value
% Time pH < 4	1.51 (-6.36, 9.39)	0.707
Number of acid reflux episodes/hour	-0.19 (-2.03, 1.65)	0.843
Number of non-acid reflux episodes/hour	-0.04 (-2.36, 2.28)	0.973
Total number of reflux episodes/hour	-0.17 (-2.94, 2.59)	0.904

Patients aged ≥1:

Outcome	Mean difference	p-value
% Time pH < 4	4.66 (-4.12, 13.43)	0.302
Number of acid reflux episodes/hour	0.09 (-1.91, 2.09)	0.930
Number of non-acid reflux episodes/hour	1.91 (-0.10, 3.93)	0.067
Total number of reflux episodes/hour	2.08 (-0.77, 4.94)	0.157

All patients, within each sedation group:

Outcome	Sedation Group	Mean difference	p-value
% Time pH < 4	Anesthesia	-0.83 (-2.85, 1.18)	0.421
	No Sedation	1.27 (-1.79, 4.33)	0.418
Number of acid reflux episodes/hour	Anesthesia	0.16 (-0.32, 0.63)	0.519
	No Sedation	0.21 (-0.50, 0.93)	0.561
Number of non-acid reflux episodes/hour	Anesthesia	0.32 (-0.28, 0.91)	0.298
	No Sedation	0.33 (-0.57, 1.23)	0.480
Total number of reflux episodes/hour	Anesthesia	0.48 (-0.23, 1.18)	0.192
	No Sedation	0.52 (-0.55, 1.60)	0.342

Patients aged ≥1, within each sedation group:

Outcome	Sedation Group	Mean difference	p-value
% Time pH < 4	Anesthesia	-2.10 (-5.15, 0.95)	0.181

Outcome	Sedation Group	Mean difference	p-value
	No Sedation	2.61 (-0.66, 5.88)	0.123
Number of acid reflux episodes/hour	Anesthesia	0.41 (-0.28, 1.11)	0.246
	No Sedation	0.38 (-0.36, 1.12)	0.320
Number of non-acid reflux episodes/hour	Anesthesia	-0.00 (-0.70, 0.70)	0.999
	No Sedation	1.11 (0.36, 1.86)	0.005
Total number of reflux episodes/hour	Anesthesia	0.41 (-0.58, 1.40)	0.419
	No Sedation	1.49 (0.42, 2.55)	0.008

Table 3: Univariate and multiple regression analysis for the effect of PPI on each outcome overall and for patients aged ≥ 1 , and within sedation group.

Univariate analysis of PPI in all patients:

Outcome	Dataset	PPI	No PPI	p-value
% Time pH < 4	Full data	1.26 (0.86, 1.85)	1.53 (0.90, 2.58)	0.552
	Abridged data	1.15 (0.75, 1.76)	1.59 (0.90, 2.80)	0.354
	First 4 hours	2.24 (1.53, 3.27)	2.07 (1.21, 3.54)	0.817
Number of acid reflux episodes/hour	Full data	0.71 (0.54, 0.94)	0.71 (0.49, 1.04)	0.989
	Abridged data	0.56 (0.41, 0.78)	0.59 (0.38, 0.91)	0.853
	First 4 hours	1.30 (0.98, 1.72)	1.29 (0.95, 1.75)	0.980
Number of non-acid reflux episodes/hour	Full data	1.13 (0.87, 1.46)	0.62 (0.46, 0.84)	0.004
	Abridged data	1.13 (0.88, 1.45)	0.59 (0.43, 0.82)	0.002
	First 4 hours	1.46 (1.14, 1.85)	1.19 (0.85, 1.65)	0.317
Total number of reflux episodes/hour	Full data	2.25 (1.92, 2.62)	1.61 (1.26, 2.06)	0.024
	Abridged data	2.24 (1.94, 2.58)	1.38 (1.04, 1.83)	0.003
	First 4 hours	2.43 (1.89, 3.12)	2.34 (1.80, 3.04)	0.830

Univariate analysis of PPI in patients aged ≥ 1 :

Outcome	Dataset	PPI	No PPI	p-value
% Time pH < 4	Full data	1.35 (0.87, 2.07)	1.61 (0.94, 2.75)	0.595
	Abridged data	1.19 (0.73, 1.95)	1.68 (0.93, 3.01)	0.366
	First 4 hours	2.16 (1.40, 3.34)	2.24 (1.40, 3.59)	0.904
Number of acid reflux episodes/hour	Full data	0.74 (0.53, 1.02)	0.75 (0.49, 1.15)	0.944
	Abridged data	0.66 (0.46, 0.94)	0.61 (0.38, 0.99)	0.805
	First 4 hours	1.36 (0.99, 1.86)	1.38 (0.99, 1.92)	0.944
Number of non-acid reflux episodes/hour	Full data	0.92 (0.68, 1.24)	0.56 (0.42, 0.74)	0.016
	Abridged data	0.89 (0.67, 1.18)	0.53 (0.39, 0.73)	0.014
	First 4 hours	1.49 (1.14, 1.95)	1.10 (0.79, 1.54)	0.150

Outcome	Dataset	PPI	No PPI	p-value
Total number of reflux episodes/hour	Full data	2.11 (1.79, 2.50)	1.57 (1.22, 2.03)	0.053
	Abridged data	2.03 (1.72, 2.38)	1.32 (0.97, 1.79)	0.015
	First 4 hours	2.65 (2.01, 3.48)	2.34 (1.83, 2.99)	0.499

Univariate analysis of PPI within sedation group, in all patients:

Outcome	Dataset	Sedation Group	PPI	No PPI	p-value
% Time pH < 4	Full data	Anesthesia	0.49 (0.24, 0.97)	1.08 (0.40, 2.94)	0.204
		No Sedation	0.68 (0.31, 1.49)	1.57 (0.63, 3.94)	0.178
	Abridged data	Anesthesia	0.42 (0.19, 0.91)	0.77 (0.25, 2.36)	0.388
		No Sedation	0.48 (0.20, 1.16)	1.01 (0.36, 2.84)	0.286
	First 4 hours	Anesthesia	0.28 (0.12, 0.69)	0.40 (0.11, 1.47)	0.669
		No Sedation	0.52 (0.19, 1.44)	1.16 (0.35, 3.83)	0.317
Number of acid reflux episodes/hour	Full data	Anesthesia	0.49 (0.30, 0.79)	0.51 (0.25, 1.03)	0.928
		No Sedation	0.44 (0.25, 0.76)	0.96 (0.50, 1.83)	0.077
	Abridged data	Anesthesia	0.38 (0.23, 0.63)	0.45 (0.21, 0.93)	0.730
		No Sedation	0.43 (0.24, 0.77)	0.75 (0.38, 1.47)	0.224
	First 4 hours	Anesthesia	0.41 (0.20, 0.85)	0.25 (0.09, 0.73)	0.461
		No Sedation	0.35 (0.15, 0.80)	1.09 (0.42, 2.88)	0.084
Number of non-acid reflux episodes/hour	Full data	Anesthesia	1.09 (0.79, 1.52)	0.63 (0.39, 1.01)	0.062
		No Sedation	1.17 (0.81, 1.70)	0.62 (0.40, 0.96)	0.032
	Abridged data	Anesthesia	1.09 (0.75, 1.59)	0.44 (0.26, 0.76)	0.009
		No Sedation	1.18 (0.77, 1.81)	0.49 (0.30, 0.81)	0.011
	First 4 hours	Anesthesia	1.41 (0.84, 2.37)	0.57 (0.27, 1.22)	0.057
		No Sedation	0.85 (0.47, 1.55)	0.80 (0.40, 1.61)	0.894
Total number of reflux episodes/hour	Full data	Anesthesia	2.16 (1.74, 2.67)	1.27 (0.93, 1.73)	0.007
		No Sedation	2.36 (1.85, 3.02)	1.97 (1.48, 2.62)	0.342
	Abridged data	Anesthesia	2.14 (1.71, 2.67)	1.13 (0.82, 1.56)	0.002
		No Sedation	2.38 (1.84, 3.06)	1.64 (1.22, 2.21)	0.065

Outcome	Dataset	Sedation Group	PPI	No PPI	p-value
	First 4 hours	Anesthesia	2.47 (1.84, 3.32)	1.57 (1.02, 2.42)	0.093
		No Sedation	2.38 (1.70, 3.34)	3.27 (2.20, 4.86)	0.235

Univariate analysis of PPI within sedation group, in patients aged ≥ 1 :

Outcome	Dataset	Sedation Group	PPI	No PPI	p-value
% Time pH < 4	Full data	Anesthesia	0.58 (0.28, 1.19)	0.95 (0.34, 2.64)	0.437
		No Sedation	1.16 (0.47, 2.82)	1.79 (0.73, 4.36)	0.502
	Abridged data	Anesthesia	0.59 (0.25, 1.37)	0.60 (0.18, 1.99)	0.975
		No Sedation	0.65 (0.23, 1.87)	1.10 (0.39, 3.14)	0.493
	First 4 hours	Anesthesia	0.35 (0.14, 0.90)	0.42 (0.11, 1.59)	0.825
		No Sedation	1.47 (0.46, 4.68)	1.19 (0.37, 3.79)	0.802
Number of acid reflux episodes/hour	Full data	Anesthesia	0.56 (0.36, 0.88)	0.48 (0.26, 0.91)	0.713
		No Sedation	0.87 (0.50, 1.53)	1.05 (0.60, 1.84)	0.643
	Abridged data	Anesthesia	0.46 (0.28, 0.78)	0.40 (0.19, 0.83)	0.745
		No Sedation	0.69 (0.36, 1.32)	0.85 (0.45, 1.62)	0.654
	First 4 hours	Anesthesia	0.47 (0.22, 1.01)	0.28 (0.10, 0.82)	0.444
		No Sedation	0.91 (0.35, 2.32)	1.09 (0.43, 2.80)	0.784
Number of non-acid reflux episodes/hour	Full data	Anesthesia	0.86 (0.61, 1.22)	0.54 (0.33, 0.88)	0.131
		No Sedation	1.02 (0.66, 1.58)	0.57 (0.37, 0.88)	0.065
	Abridged data	Anesthesia	0.85 (0.56, 1.29)	0.36 (0.20, 0.66)	0.025
		No Sedation	0.96 (0.57, 1.62)	0.44 (0.26, 0.74)	0.041
	First 4 hours	Anesthesia	1.42 (0.76, 2.65)	0.42 (0.18, 1.03)	0.032
		No Sedation	0.67 (0.31, 1.45)	0.76 (0.35, 1.64)	0.823
Total number of reflux episodes/hour	Full data	Anesthesia	1.97 (1.57, 2.47)	1.14 (0.83, 1.57)	0.008
		No Sedation	2.35 (1.78, 3.10)	2.00 (1.51, 2.64)	0.422
	Abridged data	Anesthesia	1.94 (1.51, 2.49)	1.00 (0.70, 1.43)	0.004

Outcome	Dataset	Sedation Group	PPI	No PPI	p-value
		No Sedation	2.17 (1.59, 2.96)	1.63 (1.20, 2.22)	0.206
	First 4 hours	Anesthesia	2.51 (1.87, 3.37)	1.44 (0.95, 2.18)	0.036
		No Sedation	2.86 (1.99, 4.12)	3.39 (2.35, 4.87)	0.525

Multiple regression analysis of PPI within each sedation group:

Outcome	Dataset	Sedation Group	PPI	No PPI	p-value
% Time pH < 4	Full data	Sedation	0.49 (0.21, 1.15)	1.09 (0.37, 3.22)	0.207
		No Sedation	0.48 (0.15, 1.55)	0.85 (0.21, 3.47)	0.367
	Abridged data	Sedation	0.42 (0.16, 1.10)	0.76 (0.22, 2.58)	0.409
		No Sedation	0.44 (0.12, 1.65)	0.72 (0.15, 3.54)	0.483
	First 4 hours	Sedation	0.28 (0.10, 0.82)	0.30 (0.08, 1.16)	0.932
		No Sedation	0.25 (0.06, 1.06)	0.33 (0.06, 1.90)	0.705
Number of acid reflux episodes/hour	Full data	Sedation	0.42 (0.23, 0.76)	0.43 (0.20, 0.91)	0.961
		No Sedation	0.29 (0.13, 0.66)	0.49 (0.19, 1.29)	0.239
	Abridged data	Sedation	0.35 (0.19, 0.64)	0.41 (0.19, 0.89)	0.723
		No Sedation	0.35 (0.15, 0.82)	0.48 (0.17, 1.31)	0.504
	First 4 hours	Sedation	0.43 (0.18, 1.03)	0.21 (0.07, 0.63)	0.268
		No Sedation	0.20 (0.06, 0.65)	0.39 (0.09, 1.64)	0.296
Number of non-acid reflux episodes/hour	Full data	Sedation	1.39 (0.97, 2.00)	0.76 (0.48, 1.20)	0.027
		No Sedation	0.83 (0.50, 1.36)	0.49 (0.27, 0.88)	0.052
	Abridged data	Sedation	1.66 (1.08, 2.56)	0.59 (0.34, 1.02)	0.002
		No Sedation	0.86 (0.48, 1.55)	0.38 (0.19, 0.77)	0.013
	First 4 hours	Sedation	1.84 (0.99, 3.41)	0.65 (0.30, 1.42)	0.025
		No Sedation	0.67 (0.28, 1.57)	0.62 (0.22, 1.72)	0.874
Total number of reflux episodes/hour	Full data	Sedation	2.35 (1.80, 3.08)	1.34 (0.95, 1.88)	0.006
		No Sedation	1.98 (1.37, 2.86)	1.69 (1.08, 2.62)	0.424
	Abridged data	Sedation	2.47 (1.87, 3.26)	1.26 (0.89, 1.79)	0.002
		No Sedation	2.17 (1.48, 3.18)	1.56 (0.99, 2.46)	0.115

Outcome	Dataset	Sedation Group	PPI	No PPI	p-value
	First 4 hours	Sedation	2.71 (1.86, 3.93)	1.50 (0.93, 2.40)	0.034
		No Sedation	1.86 (1.11, 3.10)	2.22 (1.21, 4.09)	0.518

Multiple regression analysis of PPI within each sedation group, in patients aged ≥ 1 :

Outcome	Dataset	Sedation Group	PPI	No PPI	p-value
% Time pH < 4	Full data	Sedation	0.60 (0.22, 1.65)	1.11 (0.30, 4.07)	0.350
		No Sedation	0.97 (0.29, 3.23)	1.86 (0.56, 6.19)	0.325
	Abridged data	Sedation	0.43 (0.14, 1.39)	0.44 (0.10, 1.99)	0.977
		No Sedation	0.66 (0.16, 2.68)	1.47 (0.37, 5.89)	0.303
	First 4 hours	Sedation	0.50 (0.14, 1.78)	0.53 (0.10, 2.69)	0.952
		No Sedation	0.71 (0.16, 3.25)	0.61 (0.13, 2.76)	0.851
Number of acid reflux episodes/hour	Full data	Sedation	0.54 (0.29, 1.01)	0.48 (0.21, 1.08)	0.779
		No Sedation	0.75 (0.35, 1.60)	1.03 (0.48, 2.19)	0.455
	Abridged data	Sedation	0.39 (0.19, 0.81)	0.33 (0.13, 0.84)	0.718
		No Sedation	0.75 (0.32, 1.79)	1.03 (0.44, 2.46)	0.506
	First 4 hours	Sedation	0.64 (0.23, 1.84)	0.35 (0.09, 1.36)	0.375
		No Sedation	0.53 (0.15, 1.87)	0.67 (0.19, 2.32)	0.743
Number of non-acid reflux episodes/hour	Full data	Sedation	0.98 (0.63, 1.53)	0.64 (0.36, 1.12)	0.132
		No Sedation	0.77 (0.45, 1.30)	0.38 (0.23, 0.65)	0.020
	Abridged data	Sedation	1.13 (0.64, 2.00)	0.45 (0.22, 0.94)	0.015
		No Sedation	0.75 (0.38, 1.48)	0.28 (0.14, 0.54)	0.009
	First 4 hours	Sedation	1.46 (0.62, 3.41)	0.42 (0.14, 1.24)	0.026
		No Sedation	0.72 (0.26, 2.00)	0.67 (0.24, 1.84)	0.886
Total number of reflux episodes/hour	Full data	Sedation	1.87 (1.36, 2.57)	1.09 (0.72, 1.64)	0.010
		No Sedation	2.06 (1.41, 3.01)	1.77 (1.21, 2.58)	0.470
	Abridged data	Sedation	1.88 (1.31, 2.70)	0.95 (0.60, 1.52)	0.005
		No Sedation	2.01 (1.30, 3.10)	1.50 (0.97, 2.31)	0.220

Outcome	Dataset	Sedation Group	PPI	No PPI	p-value
	First 4 hours	Sedation	2.40 (1.59, 3.64)	1.28 (0.75, 2.19)	0.022
		No Sedation	2.55 (1.55, 4.18)	2.96 (1.81, 4.85)	0.581