## Supplementary Table 1. Results of propensity score matched analysis

	Control group	Melatonin	p-value
	(n=96)	group (n=96)	
Acute kidney injury (n, %)	20 (20.8)	8 (8.3)	0.014
Scr > 0.3 mg/dL from baseline	19 (19.8)	8 (8.3)	0.022
Scr increase greater than 50% from baseline	9 (9.4)	5 (5.2)	0.267
Length of stay (days, mean ± SD)	$9.2 \pm 9.2$	$10.8 \pm 11.6$	0.307
Area under the curve (mg·hr/L, mean $\pm$ SD)	479.7 ± 179.7	$484.9 \pm 260.8$	0.873
Initial Trough (mcg/mL, mean ± SD)	$16.5 \pm 6.5$	$16.7 \pm 6.7$	0.895
Change in Creatinine Clearance from baseline	2.6 [14.2]	11.0 [28.9]	0.061
(mL/min, median [IQR])			
Change in sCr from baseline (mg/dL, mean ±	$0.1 \pm 0.4$	$-0.1 \pm 0.4$	0.005
SD)			

Notes: Propensity score matching included obesity, loop diuretics, piperacillin-tazobactam, age greater than 64 years, vancomycin dose greater than 3999 mg, area under the curve greater than 600 mg·hr/L, baseline creatinine clearance greater than 60 mL/min, intensive care unit admission, and Charlson Comorbidity Index greater than 3. We used the nearest neighbor approach without replacement and a caliper of 0.2. Standardized mean biases were tested and visually inspected using a dot plot to ensure adequate balance between the two groups.