Supplemental Table 1: Cumulative IV antibiotic doses by dosing frequency (>0 doses)

	q6	q8	q12	q24	q36	q48
Tobramycin						
Median Doses *Range*	47 (5 – 190)	48 (1 – 321)	6.5 (2 – 50)	31 (2 – 262)	3	4 (1 – 16)
Median Days *Range*	11.75 (1.25 – 47.5)	16 (0.33 – 107)	3.25 (1 – 25)	31 (2 – 262)	4.5	8 (2 – 32)
Amikacin						
Median Doses	None	2	None	35	None	None
Median Days	None	0.67	None	35	None	None
Vancomycin						
Median Doses *Range*	39 (23 – 118)	72 (6 – 417)	7 (3 – 33)	36 (1 – 191)	None	None
Median Days *Range*	9.75 (5.75 – 29.5)	24 (2 – 139)	3.5 (1.5 – 16.5)	36 (1 – 191)	None	None

Supplemental Table 1: Median cumulative life-time doses for tobramycin q6 was 47 over the course of 11.75 days, q8 was 48 over 16 days, q12 was 6.5 over 3.25 days, q24 was 31 over 31 days, q36 was 3 over 4.5 days and, q48 was 4 over 8 days. Median cumulative lifetime doses for vancomycin q6 was 39 over 9.75 days, q8 was 72 over 24 days, q12 was 7 over 3.5 days and, q24 was 36 over 36 days. Amikacin was the least common antibiotic in the dataset and median life-time cumulative doses for q8 was 2 over 0.7 days and, q24 was 35 over 35 days.

Supplemental Table 2: Cumulative *weighted* dosing and association with hearing loss (adjusting for age at hearing test and gender)

IV Antibiotic doses (N=81)	Odds Ratio (95% CI)	p-value
Q1 (0.5 – 5.25)	1.00	0.05*
Q2 (6.5 – 24.5)	1.10 (0.25, 4.85)	
Q3 (25.5 - 92)	2.34 (0.54, 10.10)	
Q4 (92.25 – 399.5)	3.71 (0.86, 15.97)	
Low Dosing (Q1 & Q2)	1.00	0.06
High Dosing (Q3 & Q4)	2.83 (0.98, 8.16)	
IV Antibiotic doses (excluding subjects who only received Vancomycin) (N=78)		
Q1 (0.5 – 3.75)	1.00	0.05*
Q2 (4 – 12.75)	0.51 (0.11, 2.33)	
Q3 (13 – 33.75)	2.43 (0.59, 10.05)	
Q4 (34.75 – 149.5)	2.80 (0.64, 12.37)	
Low Dosing (Q1 & Q2)	1.00	0.02
High Dosing (Q3 & Q4)	3.60 (1.25, 10.34)	

Supplemental Table 2: Odds ratios were calculated to estimate the probability of SNHL with low (Q1) to high (Q4) dosing groups. When Q1 was used as the referent groups, there was a significantly higher odds ratio that participants with the highest (Q4) IV antibiotic exposure would develop SNHL. This effect was observed with and without the inclusion of participants who only received vancomycin (bottom table). These effects remained statistically significant when the two lowest exposure groups (Q1 & Q2) were compared to the two highest exposure groups (Q3 & Q4).