

Supplemental Table 1: Initial Isolate Analysis

	N (%)	Mupirocin susceptible (n = 201)	Mupirocin resistant (n = 48)	Univariate OR (95% CI)	P value	Multivariate OR* (95% CI)	P value
Mean age (years)		4.86	7.84	1.116 (1.051, 1.186)	<0.001		
Female sex	115 (46.18)	90 (44.78%)	25 (52.08%)	1.341 (.713, 2.519)	0.362		
History of mupirocin use	88 (35.34)	47 (23.38%)	41 (85.42%)	19.191 (8.076, 45.604)	<0.001	28.912 (9.058, 92.281)	<0.001
Atopic dermatitis	138 (55.42)	105 (52.24%)	33 (68.75%)	2.101 (1.111, 3.975)	0.022		
Additional dermatologic diagnosis	80 (32.13)	64 (31.84%)	16 (33.33%)	1.070 (0.548, 2.091)	0.842		
Immunosuppression	9 (3.63)	5 (2.50%)	4 (8.33%)	3.545 (0.915, 13.743)	0.067		
Outpatient	239 (95.98)	195 (97.01%)	44 (91.67%)	0.338 (0.092, 1.250)	0.104	0.013 (0.001, 0.145)	<0.001
Zip code group							
1. Mid and Lower Manhattan	51 (20.48)	47 (23.38%)	4 (8.33%)	1			
2. Brooklyn, Queens, Long Island, and Staten Island	42 (16.87)	32 (15.95)	10 (20.83%)	3.672 (1.059, 12.733)	0.04		
3. Upper Manhattan and the Bronx	75 (30.12)	55 (27.36%)	20 (41.67%)	4.273 (1.364, 13.386)	0.013		
4. Connecticut and Northern New York state	37 (14.86)	29 (14.43%)	8 (16.67%)	3.241 (0.896, 11.733)	0.073		
5. New Jersey	41 (16.47)	35 (17.41%)	6 (12.50%)	2.014 (0.528, 7.683)	0.305		
Other	3 (1.20)	3 (1.49%)	0 (0.00%)				
Primary diagnosis							
1. Atopic dermatitis	91 (36.55)	69 (34.33%)	22 (45.83%)	1		1	
2. Dermatitis NOS	41 (16.47)	40 (19.90%)	1 (2.08%)	0.078 (0.010, 0.604)	0.015	0.047 (0.004, 0.595)	0.018
3. Impetigo	37 (14.86)	31 (15.42%)	6 (12.50%)	0.607 (0.224, 1.646)	0.327	0.417 (0.113, 1.539)	0.189
4. Folliculitis, pustulosis, abscess	35 (14.06)	27 (13.43%)	8 (16.67%)	0.929 (0.369, 2.340)	0.876	0.893 (0.269, 2.961)	0.853
5. Epidermolysis bullosa	16 (6.43)	6 (2.99%)	10 (20.83%)	5.227 (1.705, 16.023)	0.004	3.381 (0.768, 14.883)	0.107
Other	29 (11.65)	28 (13.93%)	1 (2.08%)	0.112 (0.014, 0.871)	0.036	0.009 (<0.001, 0.300)	0.008
Culture Site							
Head	71 (28.51)	59 (29.35%)	12 (25.00%)	0.802 (0.390, 1.649)	0.549		
Nares	36 (14.46)	24 (11.94%)	12 (25.00%)	2.458 (1.127, 5.363)	0.024		
Trunk	19 (7.63)	15 (7.46%)	4 (8.33%)	1.1273 (0.357, 3.566)	0.838	0.237 (0.045, 1.255)	0.091

Extremity	108 (43.37)	79 (39.30%)	29 (60.42%)	2.357 (1.238, 4.488)	0.009		
Skin Fold	89 (35.74)	71 (35.32%)	18 (37.50%)	1.099 (0.572, 2.109)	0.777		
Unspecified	5 (2.01)	4 (1.99%)	1 (2.08%)	1.048 (0.114, 9.593)	0.967		
Strain characteristics							
MRSA	37 (14.86)	22 (10.95%)	15 (31.25%)	3.698 (1.740, 7.861)	0.001		
Additional Strain(s)	30 (12.05)	23 (11.44%)	7 (14.58%)	1.321 (0.531, 3.288)	0.549		
Amount bacterial growth							
Few	73 (30.29)	65 (33.16%)	8 (17.78%)	1			
Moderate	107 (44.40)	85 (43.37%)	22 (48.89%)	2.103 (0.880, 5.026)	0.094		
Many	61 (25.31)	46 (23.47%)	15 (33.33%)	2.649 (1.038, 6.766)	0.042		

OR: Odds Ratio

CI: Confidence Interval

* For the multivariate analysis, variables trimmed from the backward model selection are excluded and only variables selected for the final model are shown.

Supplemental Table 2: Co-Infecting Species Identified

<u>Species</u>	<u>Frequency</u>
Pseudomonas aeruginosa	7
Streptococcus pyogenes (Group A)	7
Streptococcus agalactiae (Group B)	6
Acinetobacter baumannii	5
Enterococcus faecalis	5
Candida albicans	3
Diphtheroids	3
Escherichia coli	3
Klebsiella pneumoniae	3
Proteus mirabilis	3
Acinetobacter iwoffii	1
Bacillus cereus	1
Candida parapsilosis	1
Coagulase negative staphylococci	1
Enterobacter cloacae	1
Group C beta-hemolytic streptococci	1
Klebsiella oxytoca	1
Serratia marcescens	1
Viridans streptococci	1
Not otherwise specified (gram negative rods, gram positive rods)	6
Total	60