

Supplemental Table S1. Bacterial species isolated using MALDI-TOF-MS from paired oral rinse and oropharyngeal swab samples present on the azithromycin-containing plate (2 µg/mL) and the plate without azithromycin.

Participant	Oral Rinse sample on plate -AZM	Oral Rinse sample on plate +AZM	Swab sample on plate -AZM	Swab sample on plate +AZM
1	<i>Neisseria subflava</i> <i>Neisseria macacae</i>	<i>Neisseria subflava</i> <i>Neisseria</i> spp. - Most likely <i>N. macacae</i>	<i>Neisseria subflava</i> <i>Neisseria macacae</i>	<i>Neisseria subflava</i> <i>Neisseria</i> spp. - Most likely <i>N. macacae</i>
2	<i>Neisseria subflava</i> <i>Neisseria macacae</i>	<i>Neisseria subflava</i> <i>Neisseria bacilliformis</i>	<i>Neisseria subflava</i> <i>Neisseria macacae</i>	
3	<i>Neisseria subflava</i> <i>Neisseria macacae</i>	<i>Neisseria subflava</i> <i>Neisseria macacae</i>	<i>Neisseria subflava</i> <i>Neisseria macacae</i>	<i>Neisseria subflava</i>
4	<i>Neisseria subflava</i> <i>Neisseria macacae</i>	<i>Neisseria subflava</i> <i>Neisseria macacae</i>	<i>Neisseria subflava</i> <i>Neisseria macacae</i>	<i>Neisseria subflava</i> <i>Neisseria</i> spp. - Most likely <i>N. macacae</i>
5	<i>Neisseria subflava</i> <i>Neisseria elongata</i>	<i>Neisseria subflava</i>	<i>Neisseria subflava</i> <i>Neisseria elongata</i>	<i>Neisseria subflava</i>
6	<i>Neisseria subflava</i> <i>Neisseria macacae</i>	<i>Neisseria subflava</i> <i>Neisseria</i> spp. - Most likely <i>N. macacae</i>	<i>Neisseria subflava</i> <i>Neisseria macacae</i>	<i>Neisseria subflava</i> <i>Neisseria</i> spp. - Most likely <i>N. macacae</i>
7	<i>Neisseria subflava</i> <i>Neisseria elongata</i> <i>Moraxella</i> spp/	<i>Neisseria subflava</i> <i>Neisseria macacae</i>	<i>Neisseria subflava</i> <i>Neisseria macacae</i>	<i>Neisseria subflava</i> <i>Neisseria macacae</i>
8	<i>Neisseria subflava</i>	<i>Neisseria subflava</i>		<i>Neisseria subflava</i>
9	<i>Neisseria subflava</i>	<i>Neisseria subflava</i>	<i>Neisseria subflava</i>	<i>Neisseria subflava</i>
10	<i>Neisseria subflava</i> <i>Neisseria oralis</i> <i>Brevundimonas</i> spp.	<i>Neisseria subflava</i> <i>Brevundimonas</i> spp.	<i>Neisseria subflava</i> <i>Brevundimonas</i> spp.	<i>Neisseria subflava</i>

AZM= azithromycin, spp.=species, *Neisseria macacae*= *Neisseria macacae* and *Neisseria mucosa*, *Neisseria subflava*= *Neisseria subflava*/*Neisseria flavescens*/*Neisseria perflava*

Supplemental Table S2. Absolute number of colonies counted from diluted oral rinse and swab samples on the LBVT-SNR plates with and without azithromycin.

Participant	Condition	Dilution 10 <sup>-1</sup>	Dilution 10 <sup>-2</sup>	Dilution 10 <sup>-3</sup>
1	Swab	138	46	<20
	Swab + AZM	96	<20	<20
	Oral rinse	>200	205	<20
	Oral rinse + AZM	>200	95	<20
2	Swab	<20	<20	<20
	Swab + AZM	<20	<20	<20
	Oral rinse	>200	68	<20
	Oral rinse + AZM	48	<20	<20
3	Swab	128	<20	<20
	Swab + AZM	26	<20	<20
	Oral rinse	>200	>200	164
	Oral rinse + AZM	>200	>200	82
4	Swab	>200	>200	40
	Swab + AZM	>200	>200	75
	Oral rinse	>200	>200	87
	Oral rinse + AZM	>200	>200	69
5	Swab	>200	>200	149
	Swab + AZM	>200	>200	34
	Oral rinse	>200	60	<20
	Oral rinse + AZM	>200	66	<20
6	Swab	>200	>200	154
	Swab + AZM	>200	>200	36
	Oral rinse	>200	>200	145
	Oral rinse + AZM	>200	>200	156
7	Swab	>200	>200	50
	Swab + AZM	>200	>200	35
	Oral rinse	>200	>200	62
	Oral rinse + AZM	>200	>200	37
8	Swab	<20	<20	<20
	Swab + AZM	<20	<20	<20
	Oral rinse	>200	109	<20
	Oral rinse + AZM	>200	38	<20
9	Swab	>200	61	<20
	Swab + AZM	>200	36	<20
	Oral rinse	>200	169	<20
	Oral rinse + AZM	>200	116	<20
10	Swab	>200	>200	29
	Swab + AZM	>200	>200	22
	Oral rinse	>200	>200 (376)	*
	Oral rinse + AZM	>200	>200 (408)	65

AZM= azithromycin, \*= Culture not evenly distributed, uncountable