

1 **Supplementary Table 1. Comparison of Cohort 2 symptom characteristics at**
 2 **time of illness presentation for children with group A Streptococcus acute**
 3 **infection and children with previous *emm*-type colonization and estimation of**
 4 **odds ratio using two-sided Fisher's exact test.**

Symptom Characteristics		Acute Infection n/N ¹	GAS ² Carriers with Established <i>emm</i> -type n/N	OR ³ (95% CI ⁴)
Sore Throat ⁵	Mild	16/73 (22)	5/10 (50)	ref
	Moderate/Severe	57/73 (78)	5/10 (50)	0.3 (0.1–1.1)
Abnormal Pharyngeal Exam ⁶		59/73 (81)	8/10 (80)	1.0 (0.2-5.0)
Fever ⁵		27/69 (39)	1/10 (10)	0.2 (0.0-1.4)
Headache ⁵		21/68 (31)	0/10 (0)	No estimate
Abdominal Pain ⁵		18/68 (27)	1/10 (10)	0.3 (0.0-2.6)
Vomiting ⁵		5/64 (8)	0/10 (0)	No estimate
Activity ⁵	Normal	29/60 (48)	9/10 (90)	ref
	Decreased	31/60 (52)	1/10 (10)	0.1 (0.0-0.9)
Cough ⁵		20/63 (32)	7/9 (78)	7.5 (1.4-39.5)
Nasal Congestion ⁵		39/65 (60)	8/10 (80)	2.7 (0.5-13.6)
One URI ⁷ Symptom ⁸		42/65 (65)	9/10 (90)	4.9 (0.6-41.4)
Two URI Symptoms ⁸		17/63 (26)	6/9 (67)	5.4 (1.2-24.1)

5 ¹Denominator variability reflects missing symptom data for children with acute
 6 infection; ²GAS: group A Streptococcus; ³OR: odds ratio; ⁴CI: confidence interval;
 7 ⁵Patient/parent reported; ⁶Presence of either pharyngeal erythema or exudates as
 8 noted by trained research staff. ⁷URI: upper respiratory symptom.
 9 ⁸Symptoms include cough or nasal congestion.

10
11

1 **Supplementary Table 2. Comparison of Cohort 2 symptom characteristics at**
 2 **time of illness presentation for children with group A Streptococcus**
 3 **colonization with a new *emm*-type and children with acute infection and**
 4 **estimation of odds ratio using two-sided Fisher's exact test.**

Symptom Characteristics		GAS ¹ Carrier with new <i>emm</i> -type n/N	Acute Infection n/N ²	OR ³ (95% CI ⁴)
Sore Throat ⁵	Mild	0/11 (0)	16/73 (22)	ref
	Moderate/Severe	11/11 (100)	57/73 (78)	No estimate
Abnormal Pharyngeal Exam ⁶		8/11 (73)	59/73 (81)	0.6 (0.2-2.7)
Fever ⁵		2/11 (18)	27/69 (39)	0.4 (0.1-1.7)
Headache ⁵		3/11 (27)	21/68 (31)	0.8 (0.2-3.5)
Abdominal Pain ⁵		2/11 (18)	18/68 (26)	0.6 (0.1-3.1)
Vomiting ⁵		2/11 (18)	5/64 (8)	2.6 (0.4-15.6)
Activity ⁵	Normal	7/11 (64)	29/60 (48)	ref
	Decreased	4/11 (36)	31/60 (52)	0.5 (0.1-2.0)
Cough ⁵		3/11 (27)	20/63 (32)	0.8 (0.2-3.4)
Nasal Congestion ⁵		4/11 (36)	39/65 (60)	0.4 (0.1-1.4)
One URI ⁷ Symptom ⁸		5/11 (45)	42/65 (65)	0.5 (0.1-1.7)
Two URI Symptoms ⁸		2/11 (18)	17/65 (26)	0.6 (0.1-3.1)

5 ¹GAS: group A Streptococcus; ²Denominator variability reflects missing symptom
 6 data for children with acute infection; ³OR: odds ratio; ⁴CI: confidence interval;
 7 ⁵Patient/parent reported; ⁶Presence of either pharyngeal erythema or exudates as
 8 noted by trained research staff. ⁷URI: upper respiratory symptom.
 9 ⁸Symptoms include cough or nasal congestion.

10
11

