

**Supplementary Data**

**Table S1: Univariate analysis showing variables associated with primary and secondary outcomes (N=2,168).**

Variables	ED LOS (min)	> 4-hr ED LOS	Patient with a pending RMDT result
	Coef. (95% CI)	OR (95% CI)	OR (95% CI)
Female vs. Male	-75 (-119.6 to -30.4)	0.82 (0.63-1.07) <sup>NS</sup>	1.26 (1.06-1.51)
Age (for every 10-year increase)	51.2 (40.5 to 61.9)	1.38 (1.3-1.46)	0.86 (0.82-0.90)
Triage			
Semi-urgent vs. Urgent	-123 (-179.8 to -66.2)	0.43 (0.32-0.58)	1.66 (1.33-2.07)
Arrival time			
0700hrs to 1900hrs vs. 1900hrs to 0700hrs	-188 (-233.6 to -142.4)	0.75 (0.56-1.01) <sup>NS</sup>	0.97 (0.80-1.17) <sup>NS</sup>
Arrival day of week			
Weekdays vs. Weekends	8 (-39.8 to 55.8) <sup>NS</sup>	1.06 (0.80-1.42) <sup>NS</sup>	1.01 (0.83-1.22) <sup>NS</sup>
Mode of arrival			
Ambulance vs. private/public transport	224 (180.6 to 267.4)	3.76 (2.85-4.98)	0.63 (0.53-0.76)
Study ED			

A	Ref	Ref	Ref
B	-169 (-257.7 to -80.3)	0.31 (0.20-0.48)	3.99 (2.81-5.67)
C	-55 (-130.1 to 20.1) <sup>NS</sup>	0.60 (0.39-0.93)	6.14 (4.53-8.33)
D	169 (106.4 to 231.6)	0.55 (0.38-0.79)	3.05 (2.32-3.99)
E	-90 (-171.6 to -8.4)	0.59 (0.37-0.93)	13.60 (9.63-19.20)
F	162 (71.3 to 252.7)	0.75 (0.43-1.29) <sup>NS</sup>	11.74 (8.10-17.02)
Patient disposition			
Discharged vs. Admitted	-325 (-380.3 to -269.7)	0.17 (0.13-0.22)	2.41 (1.97-2.94)
Test order episode	120.6 (109.1 to 132.0)	2.58 (2.23-2.99)	0.83 (0.79-0.88)
No. of tests (for every 3 more tests ordered)	167.6 (149.5 to 185.7)	3.3 (2.78-3.93)	0.85 (0.78-0.92)
Test result			
Positive vs. Negative	-39 (-85.5 to 7.5) <sup>NS</sup>	0.71 (0.54-0.94)	1.12 (0.93-1.36) <sup>NS</sup>

ED, Emergency Department; RMDT, Rapid Molecular Diagnostic Test; LOS, Length of Stay; NS, Not Significant.

**Table S2: Multivariate analysis showing the association between the timing of respiratory virus testing (every 30-min increase) with study outcomes by patient disposition and ED arrival time.**

Variable	N	ED LOS (min) <sup>†</sup>	> 4-hr ED LOS <sup>††</sup>	Patient with a pending RMDT result <sup>†††</sup>
		Coef. (95% CI)	OR (95% CI)	OR (95% CI)
Patient disposition				
Discharged	545	28.0 (25.6-30.4)	1.68 (1.48-1.91)	1.09 (1.03-1.14)
Admitted	1,567	22.3 (19.4-25.2)	1.44 (1.32-1.58)	1.04 (1.02-1.05)
ED arrival time				
0700hrs to 1900hrs	1,528	26.6 (24.3-29.0)	1.49 (1.37-1.62)	1.03 (1.01-1.04)
1900hrs to 0700hrs	640	17.8 (13.4-22.0)	1.58 (1.37-1.81)	1.06 (1.03-1.09)

All analyses were significant with a *P-value* of <0.001. ED, Emergency Department; RMDT, Rapid Molecular Diagnostic Test; LOS, Length of Stay; <sup>†</sup>Adjusted for gender, age, triage category, mode of arrival, study ED, test order episode; <sup>††</sup>Adjusted for age, arrival day of week, mode of arrival, study ED and test order episode; <sup>†††</sup>Adjusted for gender, age, triage category, mode of arrival, study ED and test order episode.