Supplemental Online Content


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This supplemental material has been provided by the authors to give readers additional information about their work.
### eTable. Statistical results table of adjusted and unadjusted differences in mean SARS-CoV-2 Orf1b Ct values by various subgroup comparisons

<table>
<thead>
<tr>
<th>Comparison</th>
<th>Unadjusted Ct Values</th>
<th>Adjusted* Ct Values</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Difference</td>
<td>p-value</td>
</tr>
<tr>
<td>Symptomatic&lt;sup&gt;b&lt;/sup&gt; children vs. symptomatic adults</td>
<td>-1.51</td>
<td>0.07</td>
</tr>
<tr>
<td>Asymptomatic&lt;sup&gt;c&lt;/sup&gt; children vs. asymptomatic adults</td>
<td>-1.09</td>
<td>0.52</td>
</tr>
<tr>
<td>Symptomatic children vs. asymptomatic children</td>
<td>-2.99</td>
<td>0.02</td>
</tr>
<tr>
<td>Symptomatic adults vs. asymptomatic adults</td>
<td>-2.57</td>
<td>0.04</td>
</tr>
<tr>
<td>All children vs. all adults</td>
<td>-0.55</td>
<td>0.42</td>
</tr>
</tbody>
</table>

Abbreviations: Ct: cycle threshold

<sup>*Adjusted for swab type</sup>

<sup>b</sup>Symptomatic participants reported at least one sign or symptom (including: runny or stuffy nose, fever, headache, cough, fatigue, sore throat, muscle or body aches, chills, sweats, loss of smell or taste, diarrhea, eye pain, nausea or vomiting, trouble breathing, ear pain or discharge, or rash) within the 7 days prior to enrollment

<sup>c</sup>Asymptomatic participants were those who reported no symptoms at time of enrollment.
eFigure 1. Quick Start Guide included in each participant sample collection kit with instructions for self-swabbing.

**STEP A: Collect your nasal swab**

1. Please blow your nose and wash your hands thoroughly before you begin.

2. Loosen and remove the cap from the tube. Carefully: the tube contains liquid.

3. Remove the swab from packaging.

4. Insert swab halfway up the nose (about 1 inch).

5. Press swab against the side of your nose. Move the swab in a circle 5 times so it touches as much of the inside of your nose as possible.

6. Place the swab into the solution in the provided tube.

7. Break the swab handle at the score line (break line) by bending back and forth.

8. Screw cap on tightly.

9. Write your first and last name* (as written when you enrolled in SCAN) and the date on your tube.

We cannot test your swab without your full name on the tube.

*Please double check the name on the tube matches the name the specific kit was addressed to.

10. Write down or use your smartphone to take a photo of your barcode. You’ll need it to check your results later.

**STEP B: Complete the Nasal Swab Collection survey sent to you by email**

This survey was emailed or texted when we sent your kit. You will need the barcode number that you wrote down and is printed on your kit in order to complete the survey.

CONTINUE ON TO STEP C →
eFigure 2. Standard curves for SARS-CoV-2 by collection/swab type and for Orf1b versus S gene primers.
SARS-CoV-2 was diluted in UTM to approximate collection by mid-turbinate swabs. UTM: universal transport media, AN: anterior nares, Ct: cycle threshold

A known number of copies of inactivated SARS-CoV-2 (ATCC) was (A) diluted in composite negative specimen in universal transport media (UTM) or (B) spiked onto a US Cotton #3 Anterior Nares (AN) swab containing clinical matrix from a confirmed healthy volunteer and eluted in 1 ml PBS. For both types of samples, 200 ul each dilution was subjected to total nucleic acid extraction using a Magna Pure 96 viral small volume kit (Roche) and eluted in 50 ul. 5 ul was added to at least 10 replicate RT-qPCR reactions containing Orf1b and S probe sets. Each point is an average of the Ct values and the error bars represent standard deviation.
eFigure 3. Comparison of mean SARS-CoV-2 Ct values by primer S gene primer excluded from primary analysis. Abbreviations: Ct: cycle threshold

Adjusted Mean SARS-CoV-2 Ct Value

<table>
<thead>
<tr>
<th>Symptom Status</th>
<th>Asymptomatic (N=78 swabs)</th>
<th>Symptomatic (N=477 swabs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age Group</td>
<td>Children (&lt;18 years)</td>
<td>Adults (18 years and older)</td>
</tr>
</tbody>
</table>

- T-test, p = 0.37
- T-test, p = 0.77
- T-test, p = 0.21
- T-test, p = 0.96

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eFigure 4. Adjusted mean RNase P Ct value by age and symptom status.
Abbreviations: Ct: cycle threshold.

Asymptomatic (N=78 swabs)  Symptomatic (N=477 swabs)

<table>
<thead>
<tr>
<th>Symptom Status</th>
<th>Adjusted Mean RNase P Ct Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children (&lt;18 years)</td>
<td>24.5 ± 1.2</td>
</tr>
<tr>
<td>Adults (18 years and older)</td>
<td>25.0 ± 1.5</td>
</tr>
</tbody>
</table>

T-test, p = 0.94  T-test, p = 0.12
eFigure 5. Heatmap of reported number and types of COVID-19 signs and symptoms reported by participants at enrollment stratified by age group. Darker colors on each heatmap indicate a higher absolute number of participants reporting that symptom.
eFigure 6. Mean SARS-CoV-2 Orf1b Ct values by swab type (N=555 swabs). Color coded by swab type. Abbreviations: AN: anterior nares, MTB: mid-turbinate, Ct: cycle threshold
eFigure 7. Mean SARS-CoV-2 Orf1b Ct value by number of reported signs and symptoms at enrollment and age groups. Regression lines adjusted for swab type. Scatterplot and regression lines color coded by age group. Ct: cycle threshold.
eFigure 8. Unadjusted mean SARS-CoV-2 Orf1b Ct values by duration of signs and symptoms and age group.
Duration is defined as the number of days between participant reported onset of signs and symptoms and date of swab collection. Scatterplot and confidence regions color coded by age groups. Ct: cycle threshold