

3-19-2020

## **Covid-19 Clinical Update 3/19/2020**

George Washington University

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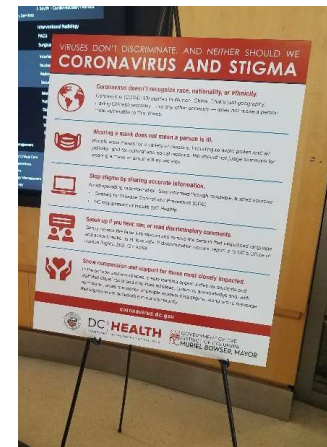
4. GW UPDATES

# COVID-19: UPDATE

HANA AKSELROD, MD, MPH

GW DIVISION OF INFECTIOUS DISEASES

3/19/2020



# EPIDEMIOLOGY

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3/19/2020





Total Confirmed

**222,643**

Confirmed Cases by Country/Region/Sovereignty

- 81,155 China
- 35,713 Italy
- 18,407 Iran
- 15,014 Spain
- 13,093 Germany
- 9,415 US
- 9,058 France
- 8,565 Korea, South
- 3,067 Switzerland
- 2,644 United Kingdom
- 2,056 Netherlands
- 1,843 Austria
- 1,795 Belgium
- 1,631 Norway

Country/Region/Sovereignty

Last Updated at (M/D/YYYY)  
3/19/2020, 10:33:08 AM



Cumulative Confirmed Cases Active Cases

**159**  
countries/regions

Lancet Inf Dis Article: [Here](#). Mobile Version: [Here](#). Visualization: JHU CSSE. Automation Support: [Esri Living Atlas team](#) and [JHU APL](#).  
Data sources: [WHO](#), [CDC](#), [ECDC](#), [NHC](#) and [DXY](#) and local media reports. Read more in this [blog](#). [Contact US](#). [FAQ](#).

Total Deaths

**9,115**

3,130 deaths  
Hubei China

2,978 deaths  
Italy

1,284 deaths  
Iran

640 deaths  
Spain

243 deaths  
France France

103 deaths  
United Kingdom United Kingdom

91 deaths  
Korea, South

Total Recovered

**84,506**

57,682 recovered  
Hubei China

5,710 recovered  
Iran

4,025 recovered  
Italy

1,540 recovered  
Korea, South

1,318 recovered  
Guangdong China

1,250 recovered  
Henan China

1,217 recovered  
Zhejiang China

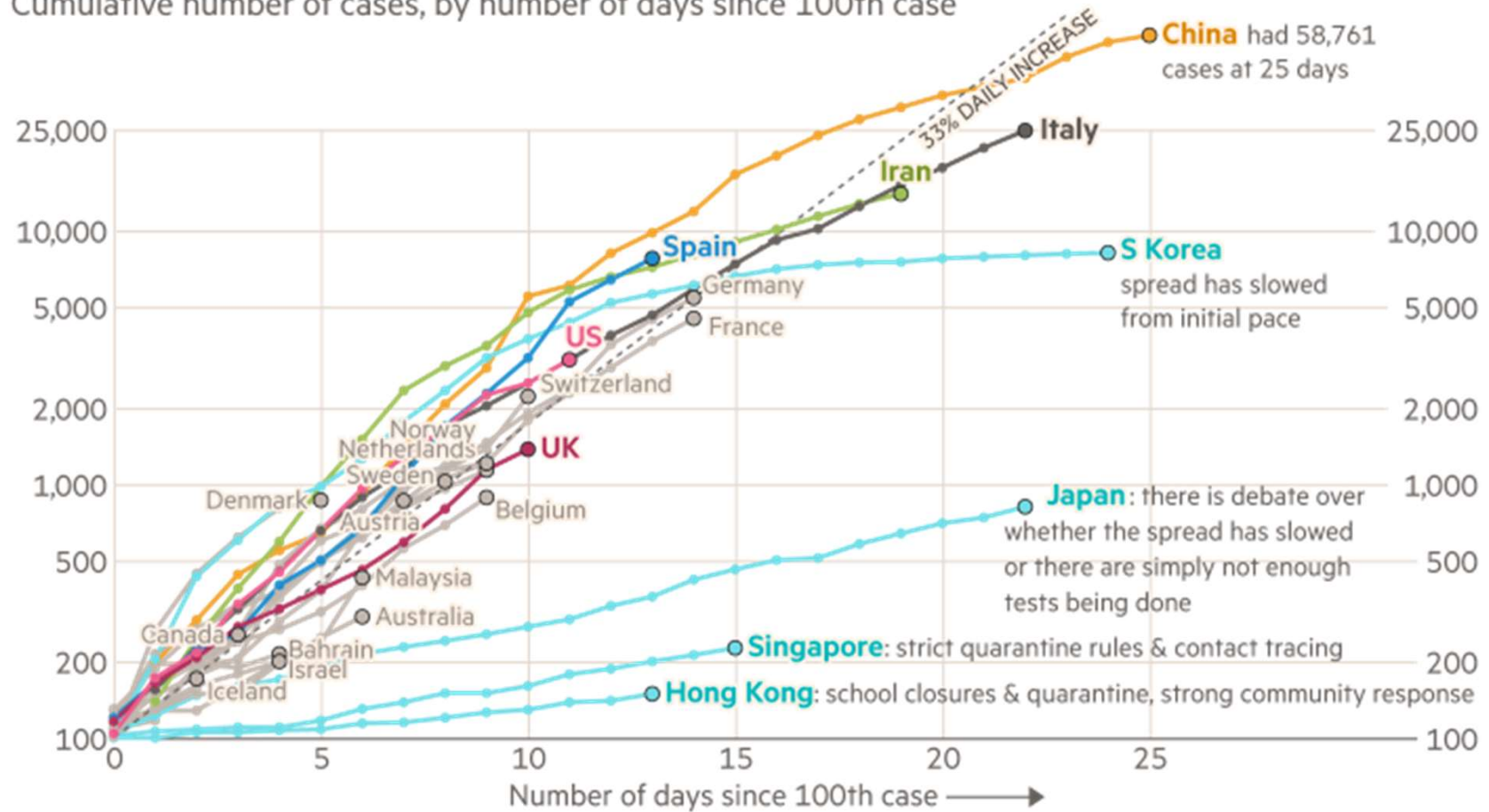
1,081 recovered



● Mainland China ● Other Locations ● Total Recovered

Actual Logarithmic Daily Cases

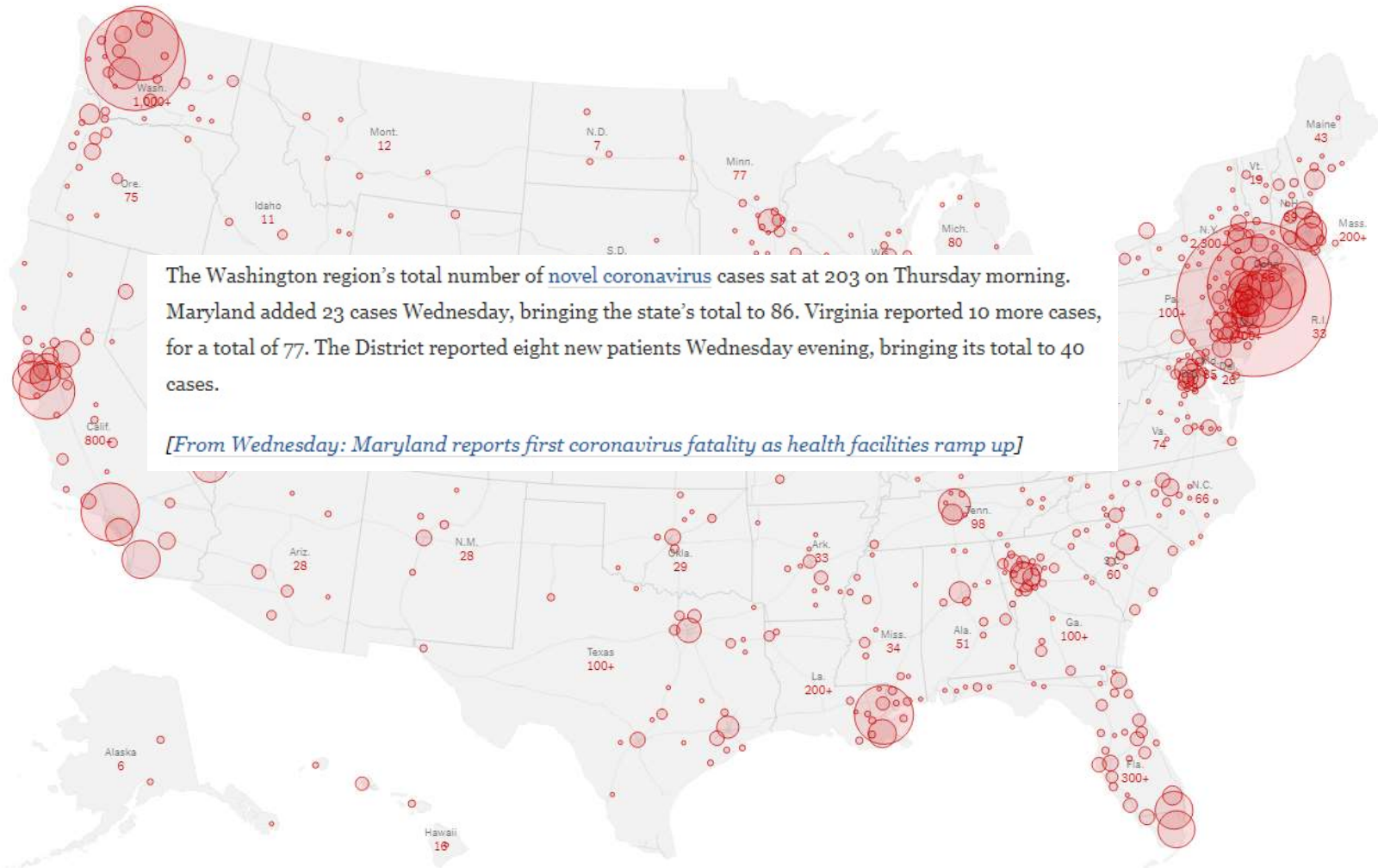
Cumulative number of cases, by number of days since 100th case



FT graphic: John Burn-Murdoch / @jburnmurdoch

Source: FT analysis of Johns Hopkins University, CSSE. Data updated March 15, 17:00 GMT

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# TREATMENT

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3/19/2020



# EXPERT RECOMMENDATIONS

ACR: Use of CT Chest in evaluation of suspected COVID-19 “Usually Not Appropriate”

<https://www.acr.org/Advocacy-and-Economics/ACR-Position-Statements/Recommendations-for-Chest-Radiography-and-CT-for-Suspected-COVID19-Infection>

ATM ANNALS OF TRANSLATIONAL MEDICINE  
AN OPEN ACCESS JOURNAL COVERING ALL SUBSPECIALTIES OF TRANSLATIONAL MEDICINE

2018  
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3,680

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Home / Vol 8, No 4 (February 2020) / The role of CT for Covid-19 patient's management remains poorly defined

Letter to the Editor [Check for updates](#)

**The role of CT for Covid-19 patient's management remains poorly defined**

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# EXPERT RECOMMENDATIONS

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## News

### **Covid-19: ibuprofen should not be used for managing symptoms, say doctors and scientists**

*BMJ* 2020 ; 368 doi: <https://doi.org/10.1136/bmj.m1086> (Published 17 March 2020)

Cite this as: *BMJ* 2020;368:m1086

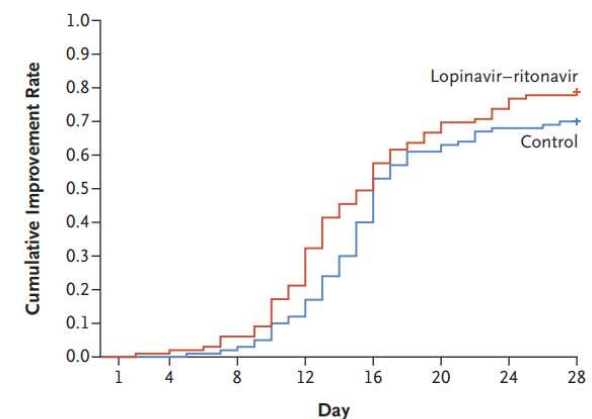
[Read our latest coverage of the coronavirus outbreak](#)

# Kaletra (lopinavir/ritonavir)

- **Background:**
  - Associated with decreased risk (2.8% vs 28.5%) of progression to severe respiratory illness in a small retrospective study for SARS in 2003. Historical controls.
  - Case report data on SARS-CoV-2.
- **Study Design:**
  - RCT open-label enrolling 199 patients, 1:1 randomization
  - Hospitalized adult patients with confirmed SARS-CoV-2, SpO2 <95%
  - Standard of care ± lopinavir/ritonavir 400/100 mg BID x 14 days
  - Primary end point: time to clinical improvement
- **Key Findings:**
  - Time to clinical improvement similar – HR 1.24; 95% CI, 0.90 to 1.72
    - Intent-to-treat analysis: HR 1.39; 95% CI, 1.00 to 1.91
  - Mortality at 28 days similar – 19.2% vs. 25.0%; 95% CI, –17.3 to 5.7
  - Detectable RNA levels similar
  - GI adverse events higher in intervention arm
  - Drug stopped early in 13.8% of patients due to adverse events

## A Trial of Lopinavir–Ritonavir in Adults Hospitalized with Severe Covid-19

B. Cao, Y. Wang, D. Wen, W. Liu, Jingli Wang, G. Fan, L. Ruan, B. Song, Y. Cai, M. Wei, X. Li, J. Xia, N. Chen, J. Xiang, T. Yu, T. Bai, X. Xie, L. Zhang, C. Li, Y. Yuan, H. Chen, Huadong Li, H. Huang, S. Tu, F. Gong, Y. Liu, Y. Wei, C. Dong, F. Zhou, X. Gu, J. Xu, Z. Liu, Y. Zhang, Hui Li, L. Shang, K. Wang, K. Li, X. Zhou, X. Dong, Z. Qu, S. Lu, X. Hu, S. Ruan, S. Luo, J. Wu, L. Peng, F. Cheng, L. Pan, J. Zou, C. Jia, Juan Wang, X. Liu, S. Wang, X. Wu, Q. Ge, J. He, H. Zhan, F. Qiu, L. Guo, C. Huang, T. Jaki, F.G. Hayden, P.W. Horby, D. Zhang, and C. Wang



No. at Risk		1	4	8	12	16	20	24	28
Lopinavir-ritonavir	99	98	93	78	50	33	26	22	
Control	100	100	98	88	60	39	32	30	

Figure 2. Time to Clinical Improvement in the Intention-to-Treat Population.

# Treatment Updates: ACEs/ARBs

Society	Summary of recommendations	Last Statement Update
European Society of Hypertension	Recommend continuing ACEis/ARBs due to lack of evidence to support differential use in COVID-19 patients. In those with severe symptoms or sepsis, antihypertensive decisions should be made on a case-by-case basis taking into account current guidelines	March 12, 2020
European Society of Cardiology Council on Hypertension	Strongly encourage continuing ACEis/ARBs due to lack of evidence to support discontinuing	March 13, 2020
Hypertension Canada	Recommend continuing ACEis/ARBs due to lack of evidence that patients with hypertension or those treated with ACEis/ARBs are at higher risk of adverse outcomes from COVID-19 infection	March 13, 2020
Canadian Cardiovascular Society	Strongly encourage continuing ACEis/ARBs and Angiotensin Receptor Neprilysin Inhibitors due to a lack of clinical evidence to support withdrawal of these agents	March 15, 2020
The Renal Association, United Kingdom	Strongly encourage continuing ACEis/ARBs due to unconvincing evidence that these medications increase risk	March 15, 2020
International Society of Hypertension	Strongly recommend that the routine use of ACEis/ARBs to treat hypertension should not be influenced by concerns about COVID-19 in the absence of compelling data that ACEis/ARBs either improve or worsen susceptibility to COVID-19 infection nor do they affect the outcomes of those infected	March 16, 2020
American College of Physicians	Encourage continuing ACEis/ARBs because there is no evidence linking them to COVID-19 disease severity, and discontinuation of antihypertensive therapy without medical indication could in some circumstances result in harm	March 16, 2020
Spanish Society of Hypertension	Recommend that ACEis/ARBs should not be empirically stopped in patients who are already taking them; in seriously ill patients, changes should be made on a case-by-case basis	March 16, 2020
American Heart Association, Heart Failure Society of America, American College of Cardiology	Recommend continuing ACEis/ARBs for all patients already prescribed them	March 17, 2020
European Renal Association - European Dialysis and Transplant Association	Recommend continuing ACEis/ARBs in COVID-19 infection patients due to a lack of evidence to support differential use and the discontinuation of ACEis/ARBs in COVID-19 patients	March 17, 2020
American Society of Pediatric Nephrology	Strongly recommend continuing ACEis/ARBs until new evidence to the contrary becomes available	March 17, 2020
High Blood Pressure Research Council of Australia	Recommend continuing routine use of ACEis/ARBs. Patients should not cease blood pressure lowering medications unless advised to do so by their physician	March 18, 2020

# PREVENTION

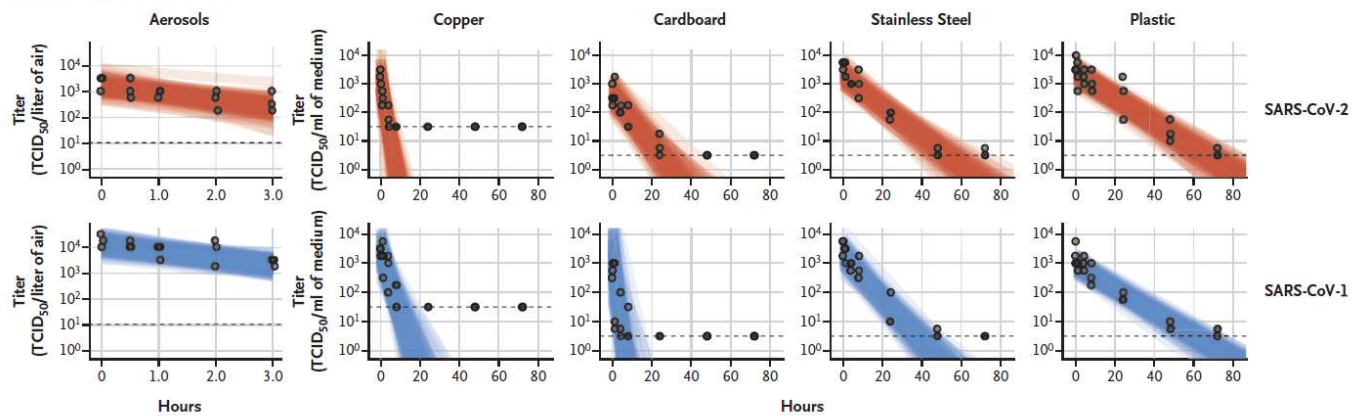
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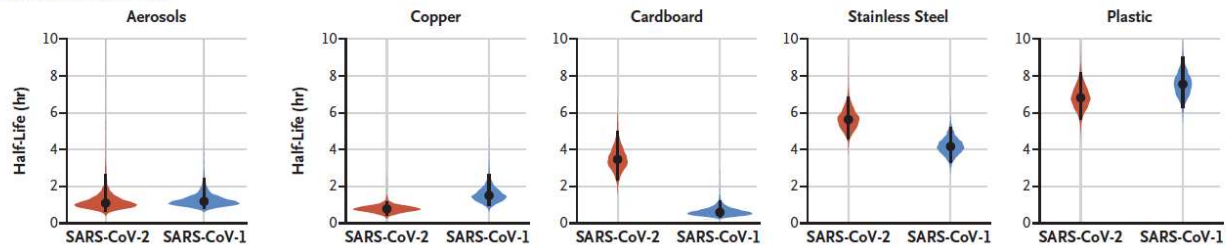


# Prevention Updates

## B Predicted Decay of Virus Titer

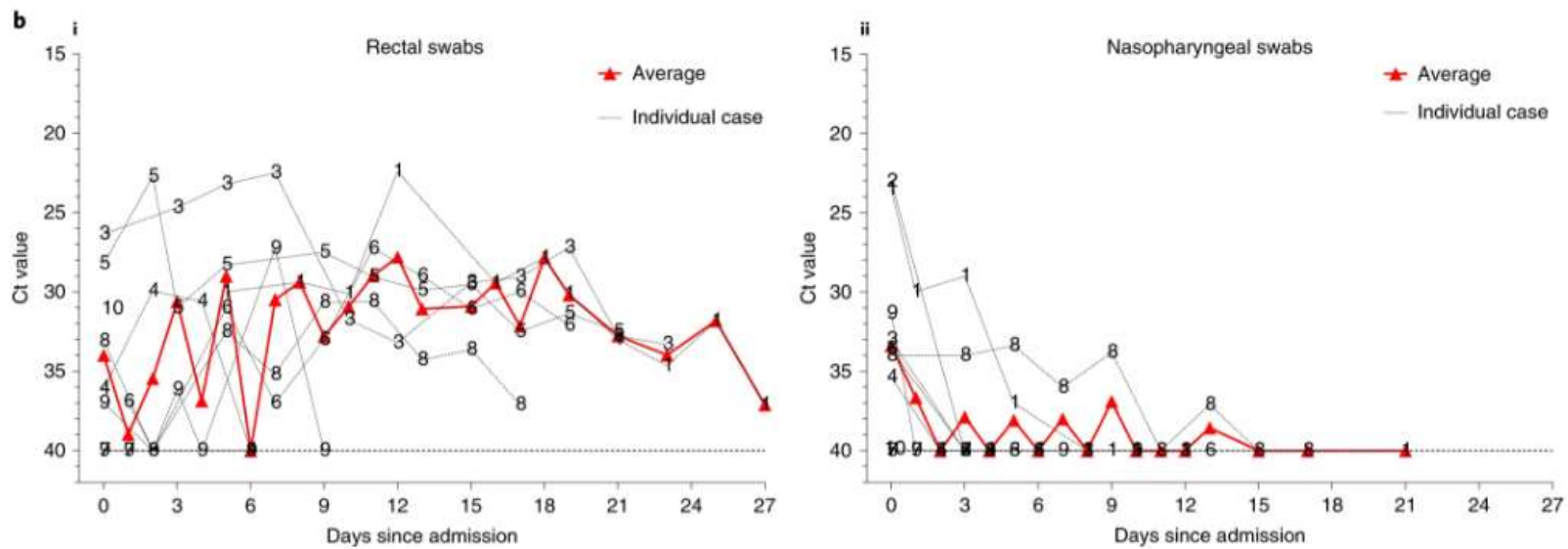


## C Half-Life of Viable Virus



Characteristics of pediatric SARS-CoV-2 infection and potential evidence for persistent fecal viral shedding

Prevention Updates





# GW UPDATE

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3/19/2020