

COVID-19: KEEPING UP WITH A MOVING TARGET APRIL 8, 2020 UPDATE

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CME Information

To attest for CME/CE credit, please visit

COVID19.DKBmed.com





Learning Objectives

- Discuss symptoms and transmission of COVID-19.
- Discuss risks, management, and precautions associated with COVID-19.
- Describe natural history of COVID-19 illness.





Thank You

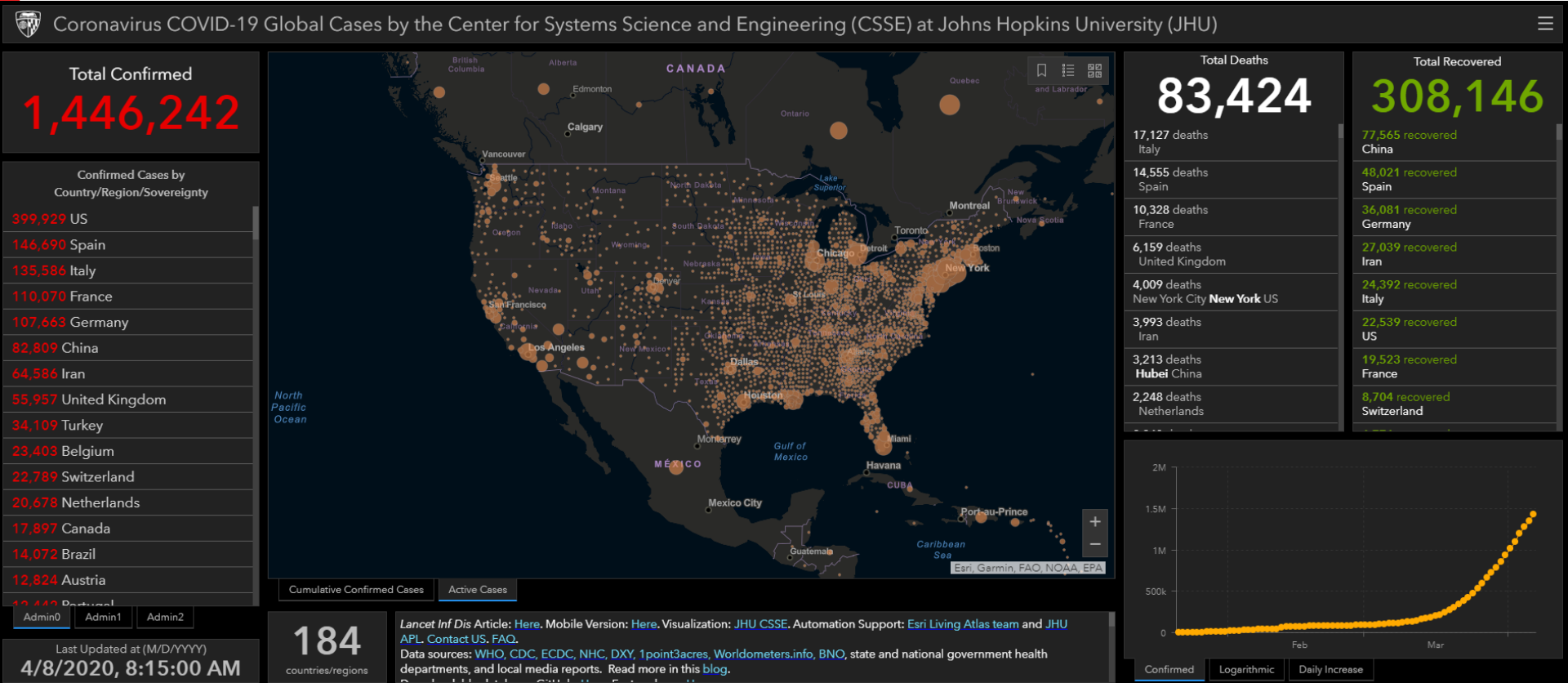
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Please see **COVID19.DKBmed.com** for additional resources and educational activities





Active Cases: N. America (4/8/20)



coronavirus.jhu.edu/map.html





Transmission and Contagiousness

- Why rapid and global spread?
 - Droplet vs. aerosol
 - Asymptomatic shedding
 - Estimates 25-50% of infected (CDC/NIAID)?

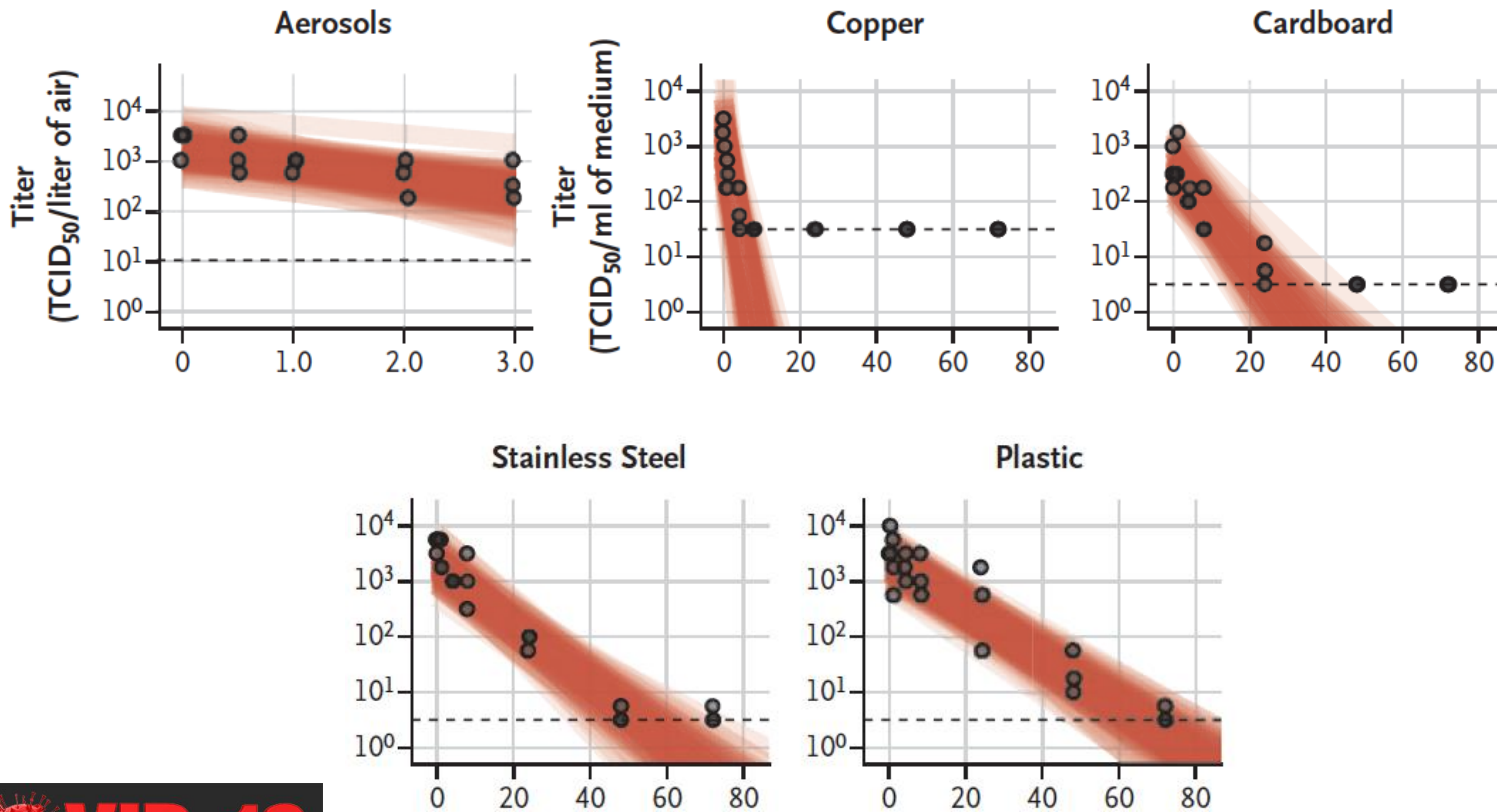




SARS-CoV-2

PREDICTED DECAY OF LIVE VIRUS BY HOUR

Caveat: Experimental Generation of Aerosols





Masks - CDC change



Coronavirus Disease 2019 (COVID-19)

CDC > Coronavirus Disease 2019 (COVID-19) > Prevent Getting Sick > Cloth Face Covers



🏠 Coronavirus Disease 2019 (COVID-19)

Symptoms & Testing +

Prevent Getting Sick -

Recommendation Regarding the Use of Cloth Face Coverings, Especially in Areas of Significant Community-Based Transmission

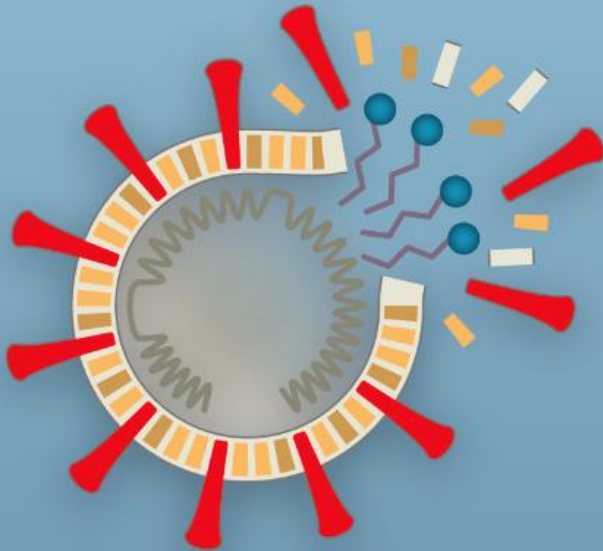
- Not N-95 or surgical masks
- Use in areas of community-spread, public settings
- Helpful for shedders (pre-symptomatic/asymptomatic)





SARS-CoV-2 RNA Envelope is Sensitive to Soap, Heat, and Alcohol

SOAP DESTROYS THE VIRUS when the water-shunning tails of the soap molecules wedge themselves into the lipid membrane and pry it apart.

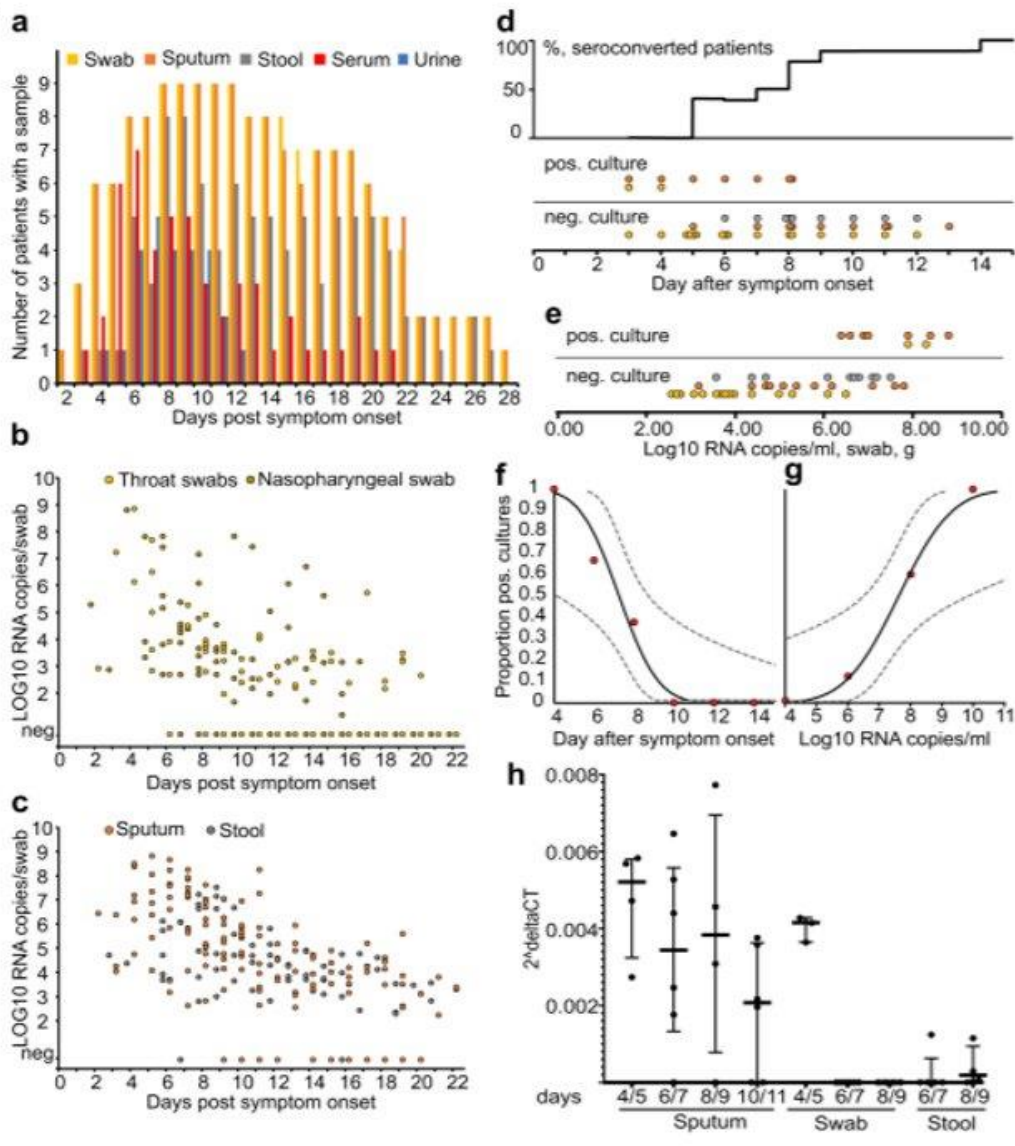


***PCR positive RNA ≠
Viral culture positive***

***Easy render virus
non-infectious***



Virological Analysis





Diagnostics

- Often limitations in availability
- COVID NATs:
 - Sensitivity and Specificity not yet defined
 - Sensitivity likely < 90%
- Serology: not ready for prime time
 - Available but unclear what role it should play
 - High suspicion for COVID-19 and NAT (-) patients?





What's New This Week in Therapeutics?

- Antivirals– **All preprints, non-peer reviewed**
 - Hydroxychloroquine (HCQ) OR Chloroquine (CG)
 - Additional caveats
 - HCQ, CQ known antipyretics
 - Usual care is the comparator arm for Chinese studies (receiving lpv/rtv, Chinese traditional medicines, anti-influenza drugs)
 - No RCT data from Europe or US
 - Prior human RCTs for influenza, Ebola + 16 other viruses
 - No effect





CQ and HCQ: What's the Data?

Study	Type (n)	Drug(s)	Viral carriage reduction	Clinical effect
Gao	Series (100) Mentioned in report	CQ	"superior"	Inhibits pneumonia, ↓ duration
Chen J	RCT (30)	HCQ	86% (HCQ), 93% (control)	None
Chen Z	RCT (62)	HCQ	n/a	↓ fever x 1d, improved imaging
Gautret P	Non-RCT (36)	HCQ, HCQ+ AZ	Combination ↓ shedding (6 pts)	N/A
Gautret P	Non-RCT (90) mild dz	HCQ+ AZ	80% with negative PCR d8 (no comparator arm)	N/A
Molina J	Non-RCT (11)	HCQ + AZ	80% positive d5-6	1 death 1 QT prolonged





To submit your own question for Dr. Auwaerter,
please email QA@dkbmed.com





**What is your take
on tocilizumab as therapy?
Have they considered
IL6 inhibitors at Hopkins?**





What is the mortality rate for people with COVID-19 requiring mechanical ventilation?

Is it as high as 80% or 90%?





Do we know if patients already taking hydroxychloroquine for lupus or RA have any "protection" from COVID-19 because they are already on this drug?





There have been reports from China about people who seemingly recovered from COVID-19, were discharged from the hospital, and then readmitted when they tested positive a second time.

Do we know if that is because of actual reinfection or a testing error?





Important Information

To receive CME/CE credit:

- Complete the evaluation on at COVID19.DKBmed.com
- Upon registering and successfully completing the activity evaluation, you will have immediate access to your certificate.

To ask your own question to Dr. Auwaerter:

- Email QA@dkbmed.com

