

# COVID-19: KEEPING UP WITH A MOVING TARGET Aug 26, 2020 UPDATE



Paul Auwaerter, MD, MBA, FIDSA Clinical Director, Division of Infectious Diseases Sherrilyn and Ken Fisher Professor of Medicine Fisher Center for Environmental Infectious Diseases Johns Hopkins University School of Medicine











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Jointly provided by Postgraduate Institute for Medicine, DKBmed, and the Institute for Johns Hopkins Nursing.

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|-----------------------------------|---|
| Paul G. Auwaerter, MD, MBA, FIDSA | Scientific Advisor: DiaSorin, Shionogi Inc. JNJ: Ownership equity |

Dr. Auwaerter has indicated that he will be referencing the unlabeled or unapproved use of agents currently being investigated in on-going studies and trials. These include COVID-19 convalescent plasma.

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## **Learning Objectives**

- Discuss the current CDC guidance of COVID-19 testing in asymptomatic people
- Describe the limitations of the currently available data concerning convalescent plasma







### Thank You

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





## Market E

#### Paul Auwaerter, MD, MBA, FIDSA

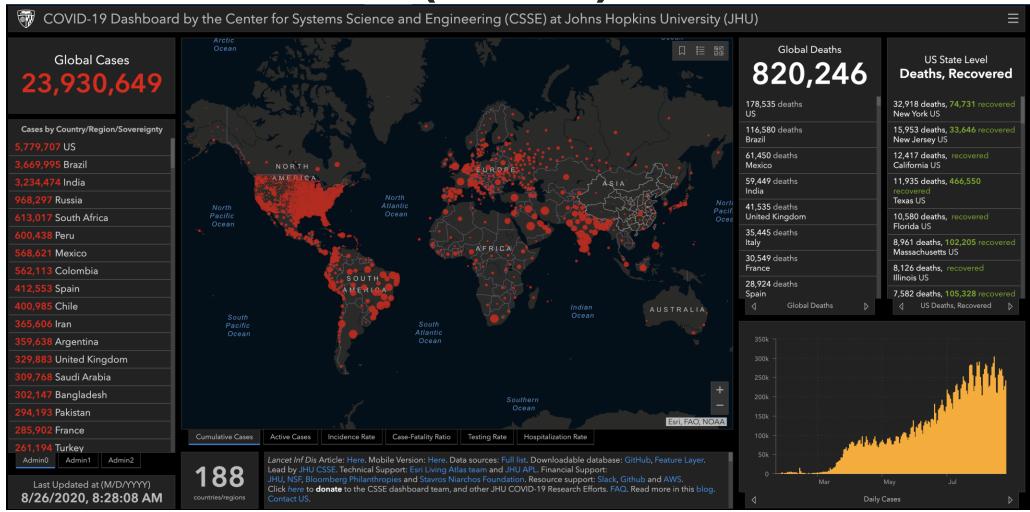
Clinical Director, Division of Infectious Diseases Sherrilyn and Ken Fisher Professor of Medicine Fisher Center for Environmental Infectious Diseases Johns Hopkins University School of Medicine







## **Total Global Cases (8/26/20)**



coronavirus.ihu.edu/map.html

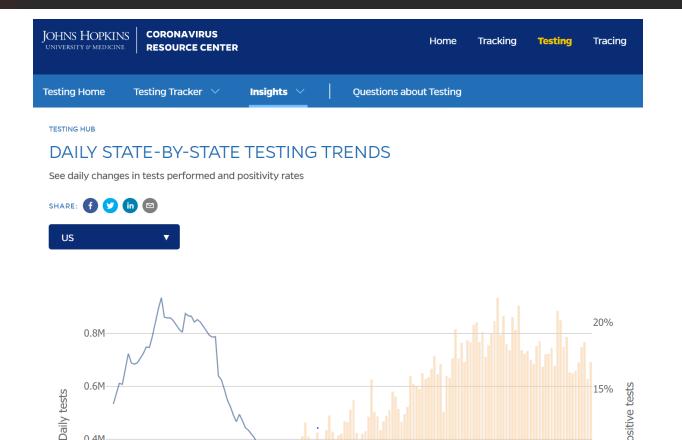






## **COVID Trends, US**

- Improving trends in many states/locales
- Still insufficient testing capabilities
- Number of tests lower than desired (3-4M/day estimate needed)



Jun 2020

Daily total tests

0.2M

Apr 2020

Percentage positive tests

(7-day moving average)

May 2020

https://coronavirus.jhu.edu/testing/individual-states Accessed 8/25/20

Jul 2020

Daily positive tests





Aug 2020

10%



## Diagnostics: CDC – no Testing if no Symptoms

#### HEALTHCARE WORKERS

Overview of Testing for SARS-CoV-2 (COVID-19)

Updated Aug. 24, 2020

Print









Note: This document is intended to provide guidance on the appropriate use of testing for SARS-CoV-2 (COVID-19) and does not address decisions regarding payment for or insurance coverage of such testing.

#### Summary of Changes

Revisions made on August 24, 2020

 Diagnostic testing categories have been edited to focus on testing considerations and actions to be taken by individuals undergoing testing

- If you do not have COVID-19 symptoms and have not been in close contact with someone known to have a COVID-19
  infection:
  - You do not need a test.
    - A negative test does not mean you will not contract an infection at a later time.
  - If you decide to be tested, you should self-isolate at home until your test results are known, and then adhere to
    your health care provider's advice. This does not apply to routine screening or surveillance testing at work, school,
    or similar situations.
- If you are in a high COVID-19 transmission area and have attended a public or private gathering of more than 10 people (without widespread mask wearing or physical distancing):
  - You do not necessarily need a test unless you are a vulnerable individual or your health care provider or State or local public health officials recommend you take one.
    - A negative test does not mean you will not develop an infection from the gathering or contract an infection at a later time.
  - You should monitor yourself for symptoms. If you develop symptoms, you should evaluate yourself under the considerations set forth above.
  - You should strictly adhere to CDC mitigation protocols, especially if you are interacting with a <u>vulnerable</u> <u>individual</u>. You should adhere to CDC guidelines to protect vulnerable individuals with whom you <u>live</u>.
  - o If you are tested, you should self-isolate at home until your test results are known, and then adhere to your health care provider's advice.

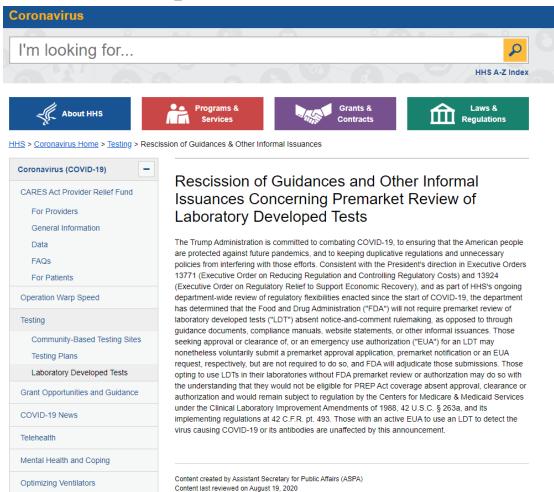
https://www.cdc.gov/coronavirus/2019-ncov/hcp/testing-overview.html







## Laboratory Developed Tests: FDA







https://www.hhs.gov/coronavirus/testing/recission-guidances-informal-issuances-premarket-review-lab-tests/index.html



## **Treatment**





- Uproar over information presented by FDA EUA
  - Fact sheet for Healthcare providers misleading

(8/23: www.fda.gov/media/141478/download)

- "Analysis of over 35,000 transfused patients in the EAP study found a doseresponse between antibody level and reduction in mortality"
- 35% mortality reduction for COVID-19 touted, misleading
  - President
  - o HHS
  - o FDA
- EUA appears to be a rapid reversal?





## FDA Authorizes EUA for Convalescent Plasma

- Preprint data "facts": <a href="https://www.medrxiv.org/content/10.1101/2020.08.12.20169359v1">www.medrxiv.org/content/10.1101/2020.08.12.20169359v1</a>
  - Dose-response analysis, subset of 3082
  - 7 & 30d mortality outcomes overlap for entire group
  - Subset of this data:
    - "Significant association if antibody levels stratified by time to transfusion."
    - < 3d hospitalization if received high titer (compared to low titer), 35% mortality reduction, relative risk

      - Not on a ventilator
  - No placebo component, "low antibody titers" compared to high titer recipients—medium titer units not included.

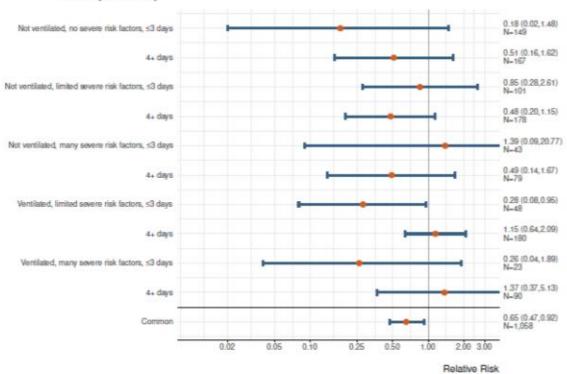


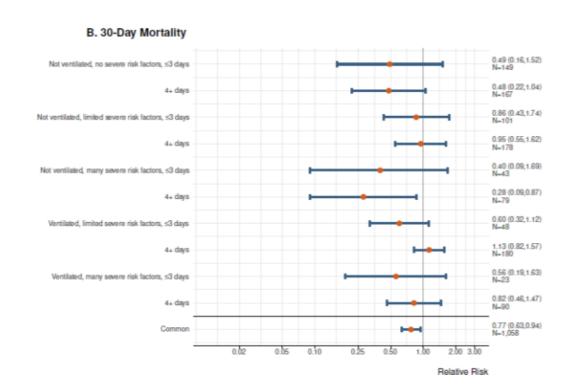




## **Convalescent Plasma – Mortality Risk**

#### A. 7-Day Mortality





Pooled relative risk of mortality\ compared to low antibody level plasma units: High antibody level plasma units 0.65 [0.47-0.92] at 7 days 0.77 [0.63-0.94] at 30 days







### **Problems**

- Relative risk between treatment groups
  - May obscure the magnitude of the effect of an intervention
  - o Tend to overestimate the effect when it is presented in relative terms
- Absolute risk= difference between two groups
  - Exposed and not exposed
  - o Best estimates, can lead to number need to treat
- Study could not look at absolute risk, all received plasma







## Other issues per EUA

- SARS-CoV-2 neutralizing antibody titers, if available
  - Neutralizing antibody titers of at least 1:160. A titer of 1:80 may be considered acceptable if an alternative matched unit is not available.
    - Per EUA: Ortho VITROS SARS-CoV-2 IgG test
    - Signal-to-cutoff (S/C) value of ≥ 12
  - When measurement of neutralizing antibody titers is not available, consider storing a retention sample from the convalescent plasma donation for determining antibody titers at a later date.
  - IDSA recommendations
    - MINIMUM titer of >1:320
- EUA includes high titer units, and also low titer if deemed acceptable by clinician







## Other Issues per EUA

- EUA says its not standard of care—which was implied in the Remdesivir EUA.
  - Status a help for clinical trials?
- How to procure?
  - Only existing eIND, single patient pathway?







## **Convalescent Plasma**

- Appears mostly safe
- Benefits not proven
  - O Who
  - When
- Scarce resource
- If beneficial, best given early in disease course









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







Are there any updates in the literature on COVID-19 and pregnancy? Does pregnancy put a woman at higher risk of infection or severe infection? Are there risks to the fetus?







What does the current evidence say about a correlation, if any, between vitamin D and COVID-19?







Can you please comment on the accuracy of a rapid test vs a PCR sent out to a lab?







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