

# COVID-19 and Pemphigus and Pemphigoid

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# Overview

Speaker	Topic
Aimee Payne, MD, PhD	Primer on terms How the virus spreads Risks for serious COVID-19 disease
Emanual Mavarakis, MD	Protecting yourself from infection now Protecting yourself as your community “opens up”
Mary Tomayko, MD. PhD	If you contract COVID-19 now Vaccines in the future
Panel discussion	Questions and answers

# Terminology review

Term	Meaning
Coronavirus	A general term for the family of viruses that cause respiratory illness (SARS, MERS, SARS-CoV-2)
SARS-CoV-2	The official name for the virus causing the global pandemic (severe acute respiratory syndrome coronavirus 2), also called “novel coronavirus” to distinguish from the SARS 2003 outbreak
COVID-19	“coronavirus disease 2019” – the official name of the disease caused by SARS-Co-V2

<https://www.cdc.gov/coronavirus/2019-ncov/faq.html# covid19-basics>

# How the novel coronavirus (SARS-CoV2) spreads. Review.

- Person-to-person spread is the major transmission route
- Respiratory droplets from sneezing, coughing, or talking (6 foot range)
- Smaller aerosolized particles that remain in the air up to hours can also be possible, most often with medical procedures
- Virus can be spread by asymptomatic carriers
- Traces of virus can be found on solid surfaces such as doorknobs, elevator buttons, bathroom fixtures (toilet/faucet), office fixtures (phone/desk/keyboard)

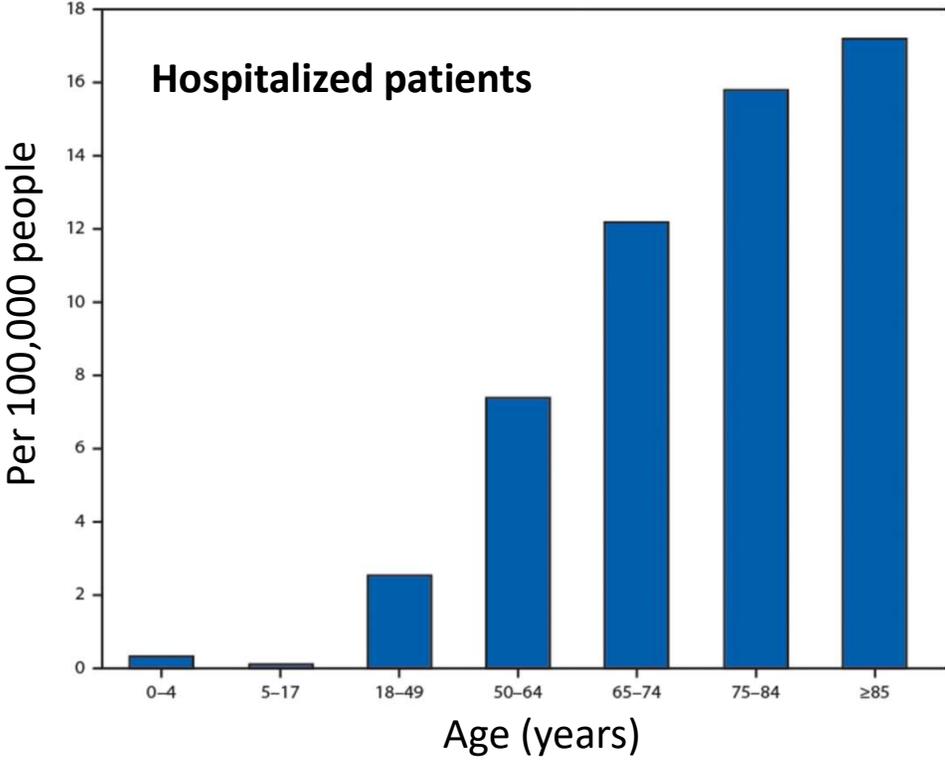
COVID-19 is a serious disease, but most people will recover eventually.

# Risk factors for severe COVID-19 disease

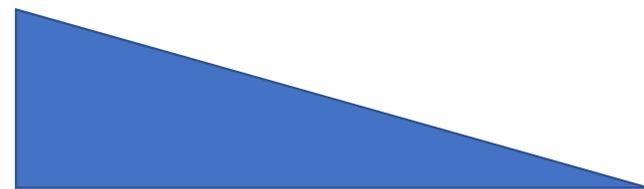
- Age > 60 years, male,
- Black and Latin Americans
- Morbid obesity, poverty
- Underlying chronic medical conditions (ranked by risk)
  - Kidney disease on dialysis, neurologic disease, heart disease, diabetes, former smoker, liver disease, immunocompromised state, lung disease, current smoker, pregnancy
  - Poorly controlled disease
- Pemphigus and pemphigoid in and of itself, is not known to increase the risk of serious COVID-19 disease

<https://www.cdc.gov/coronavirus/2019-ncov/faq.html#high-risk>

# Risk of severe COVID-19 disease increases with age



An effective immune response clears the infection,  
but a robust inflammatory response causes severe  
disease



Strength of anti-viral immune reaction



Strength of inflammatory response

Mild  
disease

Severe  
disease

# Protecting yourself from infection

- **Social distancing**
- Hand washing with soap and water or hand sanitizer
- Avoid touching face, nose, eyes and mouth
- Disinfect surfaces that are touched (door knobs, switches, rails)
- Wear face masks in public
- There are **no medications known to prevent infection**
  - Do NOT take hydroxychloroquine (Plaquenil) unless prescribed by your doctor
  - Avoid supplements unless prescribed by your doctor

# How should these protections change as community life “opens up”?

Recommendations do not change

## Short term

- Partial social distancing (1/3 of normal interactions)
- Medicines to treat disease may be identified in clinical trials
- Testing for COVID virus/RNA (active infection)
  - Contact tracing - individuals within 6 feet of infected person for  $\geq 10$  mins in the past 14 days
- Testing for COVID antibodies/serologies (immunity after resolved infection)
- Contact tracing

## Long term

- Herd immunity
  - $\geq 50\%$  of the population are immune after recovering from infection or being immunized
- Vaccine

# Medications for P/P may increase the risk for severe COVID-19 disease

Medication	Time to lose effect	Affect on response to virus
Rituximab	4-12 months	Probably weakens response
CellCept	3 months	Probably weakens response
Azathioprine	3 months	Probably weakens response
Methotrexate	3-4 weeks	Probably weakens response
Prednisone (especially >20mg daily)	Days - weeks (do NOT stop suddenly!)	Probably weakens response
IVIg	4 weeks	Minimal
Dapsone, doxycycline, nicotinamide	Days - weeks	Minimal
Xolair, Dupixent	4 weeks	Minimal

# What if I Develop COVID-19 Disease?

- **CALL** your doctor if you have concerning symptoms
  - Fever, cough, shortness of breath, loss of smell, diarrhea, red eyes, tender bumps on your toes
  - If you are severely short of breath, call 911.
- Do not stop your medications unless directed by your physician
  - The NIH recommends that individuals on prednisone for health conditions do NOT stop prednisone if they are diagnosed with COVID-19

<https://covid19treatmentguidelines.nih.gov/introduction/>

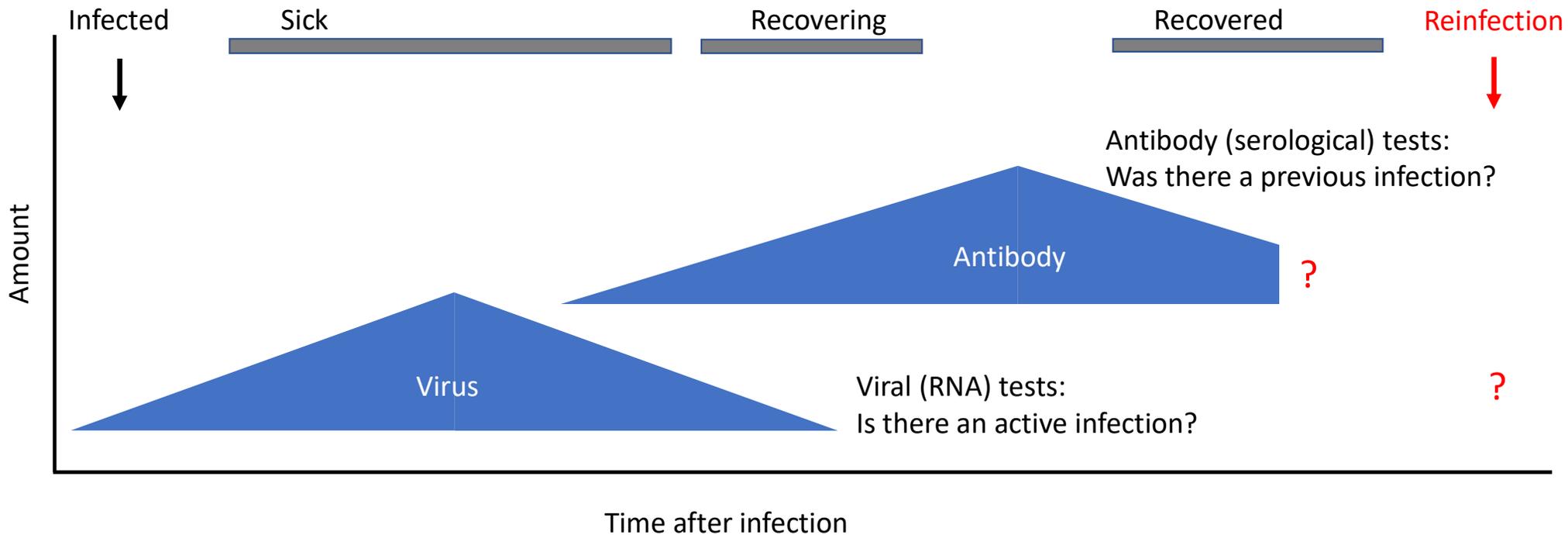
# The experience of P/P individuals with COVID-19 to date is limited

- There are no published outcomes data yet.
- Our personal experience so far is encouraging.
- The IPPF community may consider participating in the effort to understand this important question.

# Protection from infection in the future: after infection

- Antibody / serological tests may help determine who has been infected and recovered
- Individuals who have recovered from COVID-19 will probably be protected to new infection, at least for a while (months-a few years)

The presence of virus indicates current infection.  
Antibodies indicate ongoing or previous infection.



# Protection from infection in the future: vaccination

- Vaccine development will take time (many months to years).
- Vaccine safety testing will be critical.
- Some P/P medications may make a vaccine less effective
  - CellCept, azathioprine
  - Rituximab – especially in the first 4 months after infusion

Thank you!

Question and Answers