## Overview

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<td>Primer on terms</td>
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<td>Emanual Mavarakis, MD</td>
<td>Protecting yourself from infection now</td>
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<td>Protecting yourself as your community “opens up”</td>
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## Terminology review

<table>
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<tr>
<th>Term</th>
<th>Meaning</th>
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<tr>
<td>Coronavirus</td>
<td>A general term for the family of viruses that cause respiratory illness (SARS, MERS, SARS-CoV-2)</td>
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<tr>
<td>SARS-CoV-2</td>
<td>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</td>
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<td>COVID-19</td>
<td>“coronavirus disease 2019” – the official name of the disease caused by SARS-Co-V2</td>
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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

Risk of severe COVID-19 disease increases with age
An effective immune response clears the infection, but a robust inflammatory response causes 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 ≥10 mins in the past 14 days
- Testing for COVID antibodies/serologies (immunity after resolved infection)
- Contact tracing

Long term
- Herd immunity
  - ≥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

<table>
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<tr>
<th>Medication</th>
<th>Time to lose effect</th>
<th>Affect on response to virus</th>
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<tr>
<td>Rituximab</td>
<td>4-12 months</td>
<td>Probably weakens response</td>
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<tr>
<td>CellCept</td>
<td>3 months</td>
<td>Probably weakens response</td>
</tr>
<tr>
<td>Azathioprine</td>
<td>3 months</td>
<td>Probably weakens response</td>
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<tr>
<td>Methotrexate</td>
<td>3-4 weeks</td>
<td>Probably weakens response</td>
</tr>
<tr>
<td>Prednisone (especially &gt;20mg daily)</td>
<td>Days - weeks (do NOT stop suddenly!)</td>
<td>Probably weakens response</td>
</tr>
<tr>
<td>IVIg</td>
<td>4 weeks</td>
<td>Minimal</td>
</tr>
<tr>
<td>Dapsone, doxycycline, nicotinamide</td>
<td>Days - weeks</td>
<td>Minimal</td>
</tr>
<tr>
<td>Xolair, Dupixent</td>
<td>4 weeks</td>
<td>Minimal</td>
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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 from new infection, at least for a while (months-a few years)
The presence of virus indicates current infection. Antibodies indicate ongoing or previous infection.

Viral (RNA) tests:
- Is there an active infection?

Antibody (serological) tests:
- Was there a previous infection?

Viral (RNA) tests:
- Is there an active infection?

Antibody (serological) tests:
- Was there a 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