

COVID-19 Updates

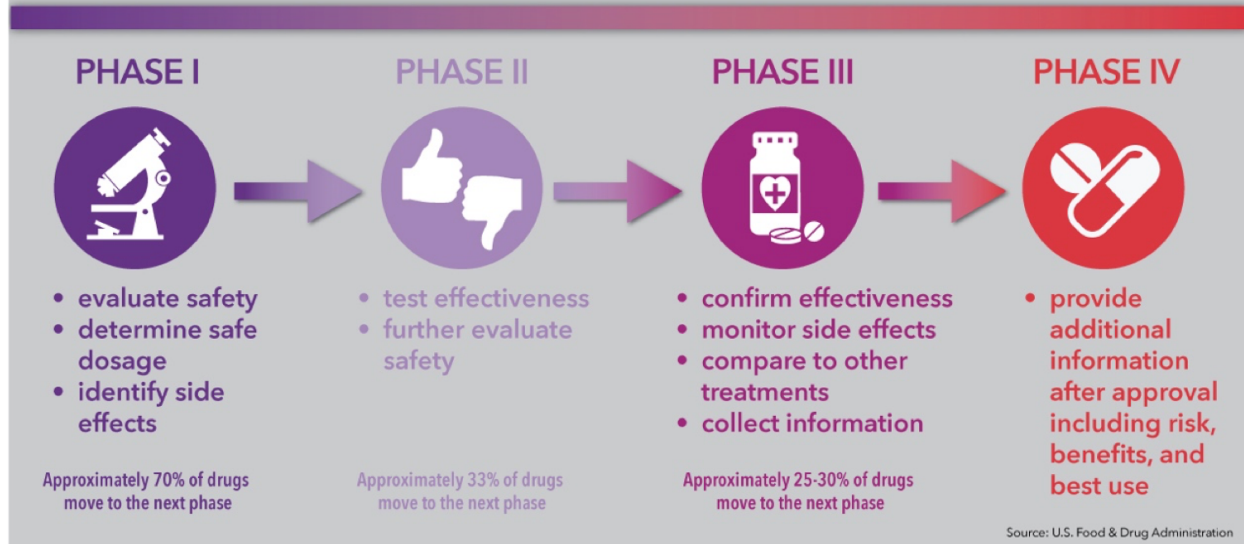
Prevention

Herd immunity occurs when enough people have had an infection and have developed immunity that the disease becomes very unlikely to spread. In order to achieve herd immunity, at least 70% of the population needs to have antibodies against COVID-19. As of Oct 3rd, less than 10% of the United States population has antibodies, therefore we must remain vigilant in our behaviors to reduce the spread of COVID-19.

- We have recently learned that wearing eyeglasses for more than 8 hours a day reduces one's chance of getting COVID-19 quite dramatically... so don't be surprised if you find Dave newly bespectacled.
- Stay out of indoor restaurants!!! The more we learn the more the dangers are confirmed. Outdoor dining only.
- The CDC has extended the no sail order for cruises as at least 3700 COVID-19 cases have occurred on US cruise ships with over 41 deaths.
- No trick-or-treating for you or your children! Don't even open the door for the cutely dressed rug rats. You can give them twice as much candy next year.
- Fortunately, COVID transmission in hospitals is very rare. Hospitals have great ventilation systems and know how to protect patients from respiratory illness. Likewise, airplanes also have great air filtration systems to limit spread of disease. If you must fly, keep the air vent over your head open... and bring a hat if you get cold from the vent like I do! However, this is not a broad consent to travel, airports including jetways, trains, and cars remain high risk.
- While a study reported that low vitamin D is associated with higher mortality, I'm not yet convinced that merely taking Vitamin D is in anyway protective. I'll keep you posted. The same with the MMR vaccine as we have previously discussed. The MMR vaccine may boost the immune response against COVID, but more data is needed to draw that conclusion.

A COVID-19 Vaccine

Phases of a Clinical Trial



- Moderna and Pfizer and Johnson & Johnson have ongoing studies in Phase III of Clinical Trial. The goal is to give 30000 adults either the vaccine or placebo and to see a 60% efficacy response. And then to wait 2 months to see if they experience any term side effects. The current reported side effects include pain and redness at the injection site and flu like symptoms.
- AstraZeneca/Oxford trial is on hold after 1 case of transverse myelitis which can cause paralysis. This is why it is very important for the scientists to complete their research before mass distribution of a vaccine.
- Does Russia have a vaccine? They published a paper in the Lancet that they have completed phase 1 and 2 of a trial of vaccine.

Antibodies

- The duration of antibody response after a person contracts COVID-19 is unknown. Some people have been infected by COVID twice several months apart, having been infected with different strains of COVID-19. A vaccine should cover multiple strains.
- COVID-19 stays in the body an average of 36 days even though a person may not be contagious for that long.

Treatment

- 10 days of dexamethasone significantly improved mortality in hospitalized COVID 19 patients. The findings did not support the use of other steroids or these use of dexamethasone in less ill people. This was surprising because steroids like dexamethasone makes people with MERS, SARS and influenza pna worse

- Anticoagulation decreased mortality for hospitalized patients. (Please call us if you test positive as we may recommend antiplatelet or anticoagulation therapy.)
- Remdesivir decreases duration of illness but does not reduce mortality.
- Trial of intranasal povidone-iodine to inactivate COVID-19 shows decrease in the amount of virus in the body and in the spread of the virus. (Do not try this at home. You can NOT use the skin formulation in your nose!)
- Convalescent plasma remains available on an emergency basis only and is being actively studied. We have seen success in some of our patients with this as well.

Complications

- In addition to complications outlined in a previous newsletter, a new study showed that 15% of college athletes had evidence of myocarditis (inflamed heart muscles) after
- COVID19, and an additional 31% had heart injury. As a result an EKG is recommended for all individuals who have had COVID-19 including youth. For the medical professional, this is a post COVID EKG with CT imaging of a 16 year old from the Lancet. The green arrows are present to make us all feel smart, like the dash lights on my car make me feel like I know what is wrong with my car when it sputters! They point out the inflammation in the heart muscles.

