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As Medical Director of Medi-Share, my first priority to you is as a physician. There is a lot of information out there, but I will always err on the side of your health. Throughout the pandemic, I have made it a point to stay abreast of the latest medical information, as well as the CDC guidelines, whenever relaying information or making recommendations for our employees or members.

As we approach the one year mark on the COVID-19 pandemic we are all familiar with the recent headlines. Major infection rate increases over the holidays led to spikes in hospitalizations and deaths as well as some regional and state specific public health strategies to include delayed re-opening of schools and intermittent closures of restaurants and bars.

However, one new variable has entered the mix and that includes the first results from the Trump administration “Operation Warp Speed” initiative which turbo-charged our vaccine development time cycle and allowed for approval of the first COVID-19 specific vaccines.

Operation Warp Speed invested in 14 vaccine candidates and ultimately has delivered six that are approved and in use or closing in on the final stages. As we think about vaccine development, it is important to understand that there are three stages:

Phase 1 simply evaluates the vaccine for safety and occurs after safety testing in animals. Is it safe and does it not cause harm?

Phase 2 focuses on the vaccine’s ability to produce an immune response and in most cases this is measured as antibody levels.

Phase 3 requires thousands of volunteers to receive the vaccine and then, most importantly, determine if the antibody levels that are produced are high enough to protect a person from getting an infection.

Many Medi-Share members are concerned about the speed at which the COVID vaccines have been developed and several have expressed concerns about the ethical development of these vaccines. First, when considering the speed of the vaccine development, it is important to remember that the COVID vaccines are built from a variety of previously proven technologies with small adjustments made based on this “new virus.”

Similar to a car, the old vaccine “chassis” is used again, but now a new “body style” is inserted targeted to this new threat. The other reason the vaccines have come through so fast is that the government invested a lot of tax dollars to support the process with smaller financial risks for the private company developers. Below is a chart of the final six that are furthest along thanks to “warp speed” public-private partnership.

Company	Dosing	Technology	Mechanism	Development Stage	Vaccine Approved for use	Efficacy	# U.S. Purchased Vaccine Doses/Warp Speed Investment
BioNTech/Pfizer (New York)	2 doses 3 weeks apart	mRNA	employ messenger RNA, which takes a page from our body's own genetic decoding book to teach our cells to produce the spike protein of the SARS-CoV-2 virus	Phase 3 trial 44,000 participants Completed Nov 20	12/11/20	95%	100 million doses Received \$1.9B
Moderna (Boston)	2 doses 4 weeks apart	mRNA	employ messenger RNA, which takes a page from our body's own genetic decoding book to teach our cells to produce the spike protein of the SARS-CoV-2 virus	Phase 3 trial 30,000 participants Completed Nov 20	12/18/20	94.5%	200 million doses Received \$1B Add'l \$1.5B Add'l \$1.6B
Johnson & Johnson/Janssen (Boston)	1 dose vs. 2 doses	Attenuated adenovirus	use a modified, benign virus to ferry in DNA that produces the virus's spike protein (same as current measles, mumps, rubella, chicken pox vaccines)	Phase 3 trial 45,000 participants --Paused Oct due to adverse rxn in volunteer Completed Jan 21	Pending; Expected 2/26/21	66%	100 million doses Received \$1.6B
Astra-Zeneca (UK)	2 doses 4 weeks apart	Attenuated adenovirus	use a modified, benign virus to ferry in DNA that produces the virus's spike protein (same as current measles, mumps, rubella, chicken pox vaccines)	Phase 3 trial 11,636 participants --Trial error – one group got ½ dose then whole dose = better efficacy @ 90% --Paused Oct due to adverse rxn in volunteer Updated results Dec 20	N/A	62-90%	300 million doses Received \$1.2B
Novavax (Maryland)	2 doses 3 weeks apart	Protein Subunit (spike protein) + immune adjuvant	uses a lab-made version of the SARS-CoV-2 spike protein (same as current flu/HPV/Hep B vaccines)	Phase 3 trial 30,000 participants Results Mar 21	N/A	TBD	100 million doses Received \$1.6B
Sanofi/GlaxoSmithKline (France)	2 doses 4 weeks apart	Protein Subunit + immune adjuvant	uses a lab-made version of the SARS-CoV-2 spike protein (same as current flu/HPV/Hep B vaccines)	Stalled Phase 2 trial --Poor immune response in volunteers >50 yrs --New Phase 2 Feb 21 --Difficult road for Phase 3/must do better than vaccines already in production Results Dec 21	N/A	TBD	100 million doses Received \$2.1B

Sources: <https://www.nytimes.com/interactive/2020/science/coronavirus-vaccine-tracker.html>
<https://www.hhs.gov/coronavirus/covid-19-vaccines/index.html>

The second issue to consider is the ethical development of vaccines. Historically, concern around utilization of fetal stem cells for medicine and vaccine development has been a trouble spot for pro-life Christian communities who object to use of stem cells derived from abortion. It is important to understand that even though fetal cells are used to grow vaccine viruses, vaccines DO NOT CONTAIN fetal cells.

Further, newer technologies have allowed for harvest of stem cells from amniotic fluid and fetal cord blood which do not require ongoing abortion to obtain new stem cell lines. However, it is true that two of the most commonly used stem cell lines were derived from abortions performed over 50 years ago. Faith leaders from various denominations have provided insight for believers and many support the use of COVID-19 vaccines.

<https://erlc.com/resource-library/articles/explainer-covid-19-raises-concern-about-abortive-fetal-cells-in-medicine/>

https://www.vatican.va/roman_curia/congregations/cfaith/documents/rc_con_cfaith_doc_20201221_nota-vaccini-anticovid_en.html

<https://www.desiringgod.org/interviews/can-i-take-a-vaccine-made-from-aborted-babies>

However, I will reiterate that this is a decision every individual and family must prayerfully make for themselves as they consider the science, as well as their moral convictions.

As Johnson & Johnson applies for emergency use authorization for their single dose COVID-19 vaccine this month, approval will continue to increase the availability of vaccines over the next few months. With more options there will be many decisions for members to sort through, but overall vaccination is a viable option for most.

While the Medi-Share program does not share in vaccinations per the member-voted guidelines, the COVID-19 vaccine is free for most Americans thanks to the government investments in operation warp speed and the anticipated 900 million doses that will ultimately be available. This will be more than adequate to vaccinate the American population of 330 million.

Patience will be key in these early months as demand is outpacing supplies. Further, as a Medi-Share member there are steps to take to ensure you are not balance billed for receiving the vaccine as outlined on our website. Providers participating in the Provider Relief Fund will be able to deliver the free COVID-19 vaccine without charging administration costs to the patient.

Making a personal decision regarding a COVID-19 vaccine can be challenging and there is a lot to consider. In general, which vaccine should you choose?...the one you can get. Each have their own unique features and all will provide adequate antibody stimulation to prevent severe COVID-19 infection.

From a public health perspective, life can “get back to normal” once we get an estimated population immunity of 70-80%. COVID-19 is much more infectious than a typical flu (R0 or R “not” factor of 2-3 compared to flu of 1.5 which means that every infected COVID-19 person will infect 2-3 others on average compared to flu’s one to one) and it will take a “wall of immunity” to stop the spread.

Granted, natural infection rates have increased over the past year; however, it is unclear for those who have had mild or asymptomatic infection whether their immune response will be strong enough to prevent re-infection. Most experts, including the CDC, recommend vaccination for all regardless of whether or not you’ve had COVID already, starting with the most vulnerable.

States have some variability in who they are targeting first for vaccination, but in general, health care professionals, nursing home residents, and those older than 65-years-old have been the targeted first group. Some states have adequate supplies to expand to those with chronic medical conditions like diabetes, asthma, or other medical conditions that put a person at greater risk for severe disease.

As we’ve all become accustomed to in the past 11 months or so, patience is key. There is light at the end of the COVID tunnel, but there are still strides to be made. A few important things to remember are to keep washing your hands, abide by your local and CDC guidelines to help slow the spread, and seek wisdom from the Lord as you and your families make personal decisions regarding the COVID vaccine.

Remember, whether or not you choose to receive the vaccine is a personal choice, and one only you can make. What a privilege that we can take our cares and concerns before the Lord in prayer and ask for His wisdom and guidance in all things.

“Dear friend, I pray that you may enjoy good health and that all may go well with you, even as your soul is getting along well.” 3 John 2