

Dr. Delgado COVID-19 Update 01-18-21

mRNA vaccine basics

Most vaccines contain an infectious pathogen or a part of it, but mRNA vaccines deliver the genetic information for our cells to make viral or bacterial proteins themselves. Our immune system responds to these and builds up immunity.

mRNA vaccines are chemically synthesized without the need for cells or pathogens, making the production process simpler and therefore faster to ramp up. Importantly, mRNA vaccines only carry the information to make a small part of a pathogen. This approach mimics what the SARS-CoV-2 does in nature – but the vaccine mRNA codes only for the critical fragment of the viral “spike” protein which allows viral entry into cells and hence continued reproduction of the virus.

The mRNA does not linger in our cells for long. Once it has passed its instructions to the protein-making machinery in our cells, enzymes called ribonuclease degrade the mRNA. This means that RNA cannot integrate into the DNA of the vaccinated cell. There is no risk of long-term genetic changes with mRNA vaccines.

Both mRNA COVID-19 vaccines that Pfizer/BioNTech and Moderna have developed cannot cause COVID-19. They do not carry the full information for our cells to make the SARS CoV-2 virus, and therefore, cannot cause an infection. What’s most attractive is that with the mRNA vaccine tools

becoming viable, mRNA can be quickly tailored for other future pandemics.

In clinical trials, reactogenicity symptoms (side effects that happen within 7 days of getting vaccinated) were common but were mostly mild to moderate. However, a small number of people had severe side effects that affected their ability to do daily activities. Side effects (such as fever, chills, tiredness, and headache) throughout the body were more common after the second dose of the vaccine. My staff and I recently received our first vaccination and all experienced them to a certain degree.

I would also like to reiterate the need to proceed with the second dosing of the vaccination irrespective of any untoward side effects from the first. Although some data exist as to partial immunity being bestowed by the first vaccination, the studies and hence the science is clear that the two-shot series confers optimal immunity. Increasing your risk of acquiring an infection in hopes of avoiding short term and likely negligible side effects would appear to be counterintuitive.

Vaccine update

Vaccine availability for our state remains murky to say the least. It appears some release is imminent to pharmacies in the foreseeable future — days to weeks?—, but as to whom, how many and when is anyone's guess. As I stated in my previous correspondence, if an initial date of

availability is eventually earmarked, it is unreasonable for all of you to expect to receive it that first day. I'm still in favor of addressing the 75 and over cohort prior to any further modifications being made to the current CDC guidelines, but will leave that up to our elected officials to determine.

We continue to follow any and all availability closely and will notify you accordingly with updates as they become available.

Office update

Our office is slated to resume for normal operations February 1st. Any overdue annual physicals (those previously to be scheduled for November 2019-February 2021) will be prioritized and you should receive a call from our office in the near future. Any new physical requests will likely begin in March and will be done as expeditiously as we are able to accommodate them.

Anyone with chronic health issues that merit appropriate follow up should begin scheduling appointments. Again, we will make every effort to accommodate your appointment requests with expediency.

We will continue to require masks at all times and limit only one patient in the office at a time for the foreseeable

future.

We appreciate your patience and understanding during these last few months.

R. Delgado, MD & Staff