Town of New Castle, NH
Settled 1623
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COVID19 Update January 15, 2021

Breaking News:

Late yesterday the state changed its vaccine phase guidelines to include individuals age 65 or greater in the next phase of vaccinations, Phase 1B. This is likely to start within the next several weeks.

Below is the link of the graphic for the updated vaccine phases. You may also view this information at the end of this document:

https://www.dhhs.nh.gov/dphs/cdcs/covid19/documents/covid19-vaccine-allocation-plan-summary.pdf

In further detail, State officials said yesterday that they are updating their vaccine plan to make anyone age 65 or older eligible to receive a COVID-19 shot in the next phase of vaccinations. Previously, those age 75 and up would be included in Phase 1B.

About 95% of those who have died of COVID-19 in the state are age 65 or older. Adding in more people to Phase 1B means about 300,000 NH residents will now be in that group. The state has been receiving about 17,000 doses of vaccine each week, and Sununu said the federal government has been saying that number should increase.

For those who are eligible for phase 1B and want to be vaccinated in the next phase, Sununu said it should be a relatively easy process.

Starting Jan. 22, go to vaccines.nh.gov and register. You'll then get an email with a link to click to go to another site to sign up for a date, time and location. You'll want to make sure you bring an ID that verifies your age with you to your vaccination appointment.

The entire vaccination schedule is still expected to last into at least May, when the final phase is scheduled to begin. As more people get vaccinated, the state will likely begin easing restrictions if case numbers go down.

Please, please do not let your guard down. We are all experiencing pandemic fatigue. Relief in the form of vaccination is simply weeks away for many of our most vulnerable. Please continue to practice community mitigation with social distancing, handwashing, mask wearing, avoiding indoor gatherings and congregate settings. It can save the life of a loved one or even you.

New Testing Requirement For Travelers To US

On Tuesday Dr. Robert Redfield, the director of the US Centers for Disease Control and Prevention (CDC), announced that all travelers to the US will be required to present proof of a negative coronavirus test no more than three days prior to travel, or to provide documentation of recovery from previous covid-19 infection. Aimed at limiting the spread of new seemingly more contagious variants, the rule is set to go into effect on January 26th. This move has been supported by airline industry groups who have lobbied for months for such measures to be put in place. That said, there will be no requirement for such testing for travel within the US.

The current vaccines (Both Pfizer and Moderna) do *not* give you the virus

This is one of the greatest misconceptions out there. While other vaccines contain weakened versions of a targeted virus to help the body's immune system adjust to and then fight it off, the COVID-19 vaccine does not. What it *does* contain is genetic material called modified messenger RNA (mRNA), which helps cells create a protein known as a "spike protein" on the surface of the COVID-19 virus. The body's immune system recognizes the harmless spike protein as foreign, and creates antibodies to fight it — along with the virus.

Anaphylactic Allergic Reactions Rare After The Pfizer-BioNtech Vaccine. And Unlike Severe Covid-19, They Are Almost Always Treatable

A new paper published in the Center for Disease Control and Prevention's *Morbidity and Mortality Weekly Report* looks at the rate of anaphylaxis during the first 1,893,360 administrations of the Pfizer-BioNTech covid-19 vaccine. A total of 21 cases were deemed to be true anaphylaxis (defined as an allergic reaction with "systemic" manifestations, which can range from swelling of face and airway, to low blood pressure) from the vaccine, but this represented a rate of only 11 per one million doses of vaccine administered. More importantly, 17 cases (81 percent) were in persons with a documented history of allergies or allergic reactions, and 7 cases (33 percent) were in persons with a history of anaphylaxis. Most cases of anaphylaxis occurred on average within 13 minutes (range: 2-150 minutes) of receipt of the vaccine. 20 of 21 cases recovered well and returned home, and information on the outcome of the one remaining case was "lost to follow-up."

Overall, the rate of anaphylaxis from the first ~1.9 million doses of the Pfizer-BioNtech vaccine appears very rare. The Centers for Disease Control recommends a short observation period after administration of the vaccine given the above data.

Experts fear that as the vaccine is rolled out for mass distribution, people will be scared by such stories. That's why it is important to remember that anaphylaxis is treatable, especially when under direct medical care already (i.e. an observation period). On the other hand, covid-19 can kill and cause long-term suffering in many more.

For the scientists interested in more granular detail of one of the vaccine candidates:

Johnson & Johnson Publishes Early Data For Its Covid-19 Vaccine Candidate. The Vaccine Is A Few Months Behind The MRNA Options But May Eventually Offer Advantages

The past month has been a busy one on the coronavirus vaccine front. With the US FDA granting emergency authorization of the Pfizer and Moderna covid-19 shots, rollouts have begun among healthcare workers and other high-risk persons. We've been able to examine data from both of these mRNA vaccines as well as a third option, the Oxford-AstraZeneca candidate (the current DNA-based vaccine frontrunner).

Yesterday, new data published in *The New England Journal of Medicine* on the Ad26.COV2.S coronavirus vaccine, being developed and tested by Johnson & Johnson. This vaccine is a "recombinant adenoviral vector" vaccine, and it uses a mechanism similar to the Oxford-AstraZeneca approach. Scientists spliced a small piece of the SARS-CoV-2 genetic material (DNA) in a harmless version of an adenovirus (naturally occuring adenoviruses can and do cause flu-like illnesses; the strains used for vaccines do not). Once administered, the vaccine generates an immune response from the body.

Yesterday's results are from the Phase 1-2a trial of 805 participants which took place at multiple sites across the United States and Belgium. Three main cohorts were established and studied. Data from two of those cohorts were reported today: subjects between 18 and 55 years of age and those greater than 65 years of age. The two cohorts in this study received either a low or high dose intramuscular shot in either a single dose or in a two-dose regimen scheduled 56 days apart. Participants were randomized to one of five groups: low dose followed by low dose, low dose followed by placebo, high dose followed by high dose, high dose followed by placebo and placebo followed by placebo. The main goal of the study was safety and reactogenicity (Phase 1 and Phase 2 trials are not adequately large enough to study efficacy). This differs from the recent vaccine studies which focused on efficacy and made global headlines when they were found to be around 95 percent effective in preventing covid-19 disease.

At day 29 after the first dose, neutralizing antibody levels (titers) were detected in 90 percent or more of all participants. That number increased to 100 percent by day 57. These titers remained stable until day 71. Of note, the second booster dose was associated with antibody levels that were 2.6-2.9 times above levels after the first dose. This implies that a booster shot might provide a great deal of protection, but this study was not designed to study outcomes. Therefore, we do not know whether these higher titers mean greater and longer durability of protection, though it certainly implies that advantage.

Meanwhile, side effects were similar to the mRNA vaccines, with most common complaints being fatigue, headache, myalgia and injection site pain. These effects were reported more often in the high-dose groups.

Similar to the mRNA vaccines, adenovirus-based vaccines cause our cells to produce just the spike protein of SARS-CoV-2 (which our body then generates antibodies to), but not the rest of the virus. In addition, adenovirus itself is "replication incompetent," meaning it has been engineered so that it can't replicate and spread in our bodies. Unlike mRNA vaccines, adenoviruses have been used in the past. A current example of an adenoviral vaccine is the rabies vaccine.

One criticism of adenoviral vaccines is that booster shots may be required, given a waning response over time. Another is that since in general, adenoviruses are common, some individuals may already have immunity prior to vaccine administration. In other words, if someone is immune to the adenovirus itself, the vaccine might fail to work because our body would neutralize it before it gains entry into our cells, a necessary step in order for the coronavirus spike protein to be manufactured and to then trigger an immune response.

However, adenovirus vaccines have a major advantage: storage. Unlike the mRNA vaccines, the Johnson and Johnson vaccine is expected to be stable at normal freezer temperatures for two years or longer. Even at refrigerator temperatures, the vaccine is thought to have a three-month shelf life. The mRNA vaccines require freezers that are so cold that even most pharmacies don't have them, and transportation requires dry ice or unusually cold (and hard-to-come-by) freezers. So if this vaccine works as well as the mRNA options do, it will have substantial appeal.

It must be cautioned that these data reflect early research of Phase 1-2a trials. The report provides information that supports further development of this method as a future vaccine candidate. Phase 3 trials will assess whether this vaccine is as protective as the current available options. While these initial results are promising, nothing can replace Phase 3 data, which we await with anticipation.

– Christopher Sampson, MD, FACEP

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Yours in Health,

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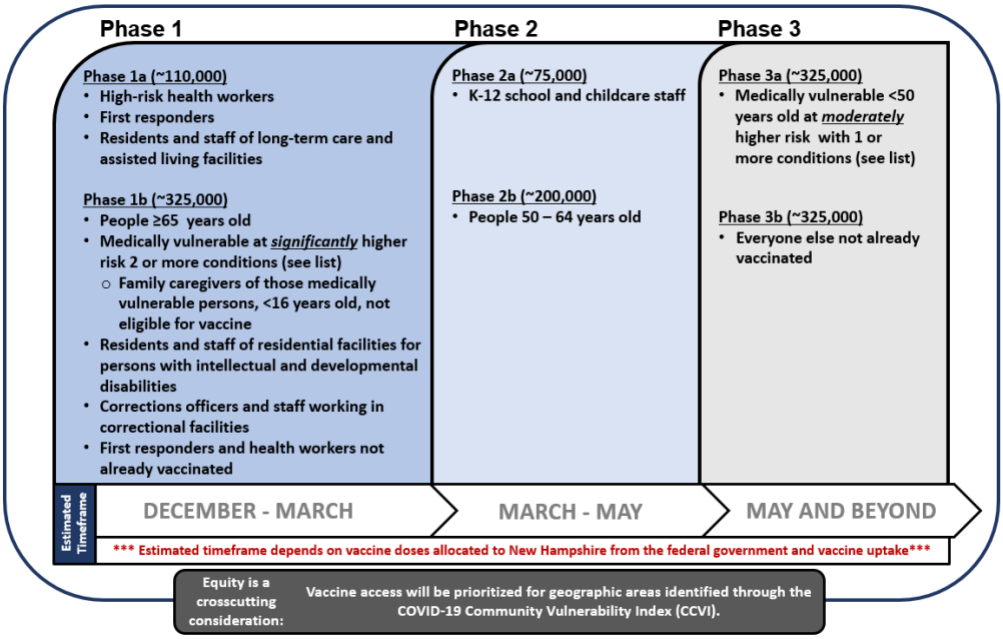
NH DIVISION OF Public Health Services
Department of Health and Human Services

Bureau of Infectious Disease Control

New Hampshire COVID-19 Vaccination Allocation Plan Summary
January 14, 2021



List Underlying Medical Conditions (adapted from CDC):

Phase 1b: Two or more conditions
Phase 3a: One or more conditions

- Cancer
- Chronic Kidney Disease
- COPD (Chronic Obstructive Pulmonary Disease)
- Down Syndrome
- Heart Conditions, such as heart failure, coronary artery disease, or cardiomyopathies
- Immunocompromised state (weakened immune system) from solid organ transplant
- Obesity (body mass index of 30 kg/m or higher but < 40 kg/m
- Severe Obesity (body > 40 kg/m)
- Pregnancy
- Sickle cell disease
- Other High Risk Pulmonary Disease
- Type 2 Diabetes Mellitus

Note: Flexibility is provided for a health care provider to vaccinate any patient whose primary care provider assesses a significant risk for severe illness due to any multiple co-occurring co-morbidities.