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Vaccine Mandates and Passports Represent a Medically Futile Public Health Measure to Contain COVID in Catholic Institutions - Part 1: A Basic Understanding of the Vaccine Science

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Since the outbreak of COVID-19, our country has faced unprecedented and unnecessary suffering because of historic misinformation, deceit and censorship perpetrated on Americans by public health authorities, media, government, private and public institutions, as well as the Catholic Church. Many countries like the United States have been subjected to unnecessary lockdowns, economic and medical calamities and restrictions on civil and religious liberties. This loss of freedom is currently represented by a growing number of schools and hospitals pursuing vaccine mandates with a medicine that not only has purported efficacy and safety concerns, but has been developed with morally tainted cell lines derived from past abortions of unborn babies. What is most reprehensible is that these vaccine mandates are being imposed on employees working in Catholic hospital systems and students who are attending Catholic schools that espouse a Catholic identity. What makes the situation even more disturbing is the level of silence from the Vatican and the USCCB to support Catholics who refuse this vaccine on religious grounds, despite the fact that the recent Congregation For the Doctrine of Faith clearly states that the vaccine should be voluntary. Moreover, several Catholic and Christian medical organizations have advocated for voluntary vaccine acceptance. Even the National Catholic Bioethics Center has come out against vaccine mandates. These vaccine mandates are driven out of fear, ignorance and deception. COVID-19 vaccine recommendations are purported to be based on guidelines from the Centers for Disease Control and Prevention (CDC), the National Institutes of Health (NIH) and the World Health Organization (WHO) to contain the spread of this infection. Yet, COVID-19 vaccines approved by emergency use authorization (EUA) represent a medically futile and likely an illegal public health measure to control this infection. In a three-part essay, I will highlight the basis for this conclusion.

A Virology Primer for the Layperson

COVID-19 or SARS-CoV-2 is a ribonucleic acid (RNA) respiratory virus which contains four structural viral proteins or antigens (see illustration): (1) E or envelope antigen; (2) N-protein or nucleocapsid antigen; (3) M-protein or membrane antigen; and (4) S-protein or spike protein. Everyone by now has seen pictures of these spikes on the virus. There are two traditional vaccine approaches to protect against infections: (1) an attenuated live vaccine in which the original live virus is weakened but mediates immune protection with a less virulent virus; and (2)

a killed whole virus vaccine. An attenuated live vaccine would be nasally administered like the transmission of the COVID-19 virus, while a killed whole virus vaccine is administered as an intramuscular injection. Much like someone who has recovered from getting COVID-19, an attenuated live vaccine produces three important mechanisms of action: (1) respiratory mucosal immunity, which facilitates a reduction in viral transmission and respiratory injury; (2) systemic humoral immunity, which elicits an immediate but transient systemic antibody response; and (3) systemic T-cell immunity, which provides more long-term immunity that prevents re-infection. For example, children who recovered from chickenpox prior to the availability of a vaccine acquired T-cell immunity. Their T-cell immunity prevented reinfection later on as adults when exposed to their offspring who contracted chickenpox. Taken together, individuals who recovered from COVID-19 likely not only possess all three forms of immunity, but they benefit from redundant immunity because of exposure to all four viral antigens. In other words, natural immunity would provide the most effective means to prevent viral transmission and re-infection. Next to natural immunity, an attenuated live vaccine would provide an effective, single dose and rapid immune protection that includes respiratory mucosal immunity. However, a downside of an attenuated live vaccine is the risk that the weakened virus could revert to the original state.

Since the Wuhan strain emerged in late 2019, hundreds of new strains or variants have emerged around the world (e.g. UK, South Africa, Brazil, India and Peru). Some of these variants have greater transmissibility than the original Wuhan strain but do not necessarily produce greater lethality. COVID-19 displays many variants because RNA viruses are very unstable and rapidly mutate. Many mutations are clinically irrelevant, while other mutations can pose unique biological features that make variants more resistant to anti-viral therapies. Our organization compared the genetic sequence of these variants and observed that the major genetic differences can be attributed to genetic mutations in the spike protein. The spike protein is more prone to mutation because it is under pressure to adapt in response to its interaction with the angiotensin converting enzyme-2 (ACE-2) receptor where the infection initiates. In contrast, there is relatively more genetic stability in the non-spike viral antigens. As a result, those that achieve natural immunity are more poised to resist re-infection from variants because of redundant respiratory mucosal, T-cell and humoral immunity to all COVID-19 viral antigens.

Operation Warp Speed Vaccines Lack the Same Immune Protection as Natural Immunity

Despite what our public health authorities state, the efficacy of Operation Warp Speed vaccines is inferior to natural immunity. Operation Warp Speed supported eight vaccine candidates from pharmaceutical companies in a rush to deliver an experimental vaccine issued under the EUA. Among the eight government supported vaccines, all eight utilized a subunit vaccine approach – a non-traditional vaccine approach for respiratory viral infections in which a fragment of the virus (in this case the spike protein) is administered to elicit a neutralizing antibody to the spike protein. Neutralizing antibodies to the spike protein prevent the virus from binding to the ACE-2 receptor and thus prevent the infection. Six of the vaccine candidates, including the Moderna,

Pfizer and Johnson and Johnson vaccines, rely on unprecedented gene therapies. Operation Warp Speed chose only subunit approaches because they were the fastest route to large scale manufacturing using off-the-shelf technologies, thereby enabling these vaccines to quickly enter clinical trials. Unfortunately, the Department of Health and Human Services did not support traditional attenuated live vaccine development because they believed that the development process would take too long (as per personal communication with HHS leadership). This decision proved short-sighted and remains a major reason why we still do not have to this day an adequate biodefense against novel coronaviruses (whether natural or man-made).

The public is largely unaware that this is not the first-time subunit vaccine approaches were attempted to combat novel coronaviruses. These same vaccine approaches were unsuccessful in developing an approved vaccine after the outbreak of SARS-CoV-1 in 2002 and MERS in 2012. Subunit vaccines typically elicit weak immune responses and require booster injections. Subunit vaccines are injected into muscle tissue, which bypass the ability to elicit a respiratory mucosal immunity. Moreover, subunit vaccines that only express the spike protein are vulnerable for two reasons. First, they do not provide redundant immune protection because they stimulate the immune system with only one viral antigen. Second, vaccine effectiveness relies on the stability of the spike protein to avoid significant mutations over time. However, RNA viruses are very unstable, and it is impractical and medically futile to protect a global population with a subunit vaccine when the spike protein is dynamically changing. Such is the case as we are witnessing how current vaccines based on the Wuhan spike protein sequence are less effective against the South African and Indian (delta) variant because the spike protein has significantly mutated. In fact, subunit vaccines could theoretically increase the risk of accelerating variant formation by increasing the biological pressure on the virus to create new variants that will be resistant to the vaccine. As of early May, there are nearly 10,000 cases of reported breakthrough cases in vaccinated individuals, and the likelihood exists that there will be new breakthrough cases in the months ahead as new variants emerge. Additionally, the CDC is not even keeping track of all breakthrough cases. In Israel, which has the highest vaccination rate using the Pfizer mRNA vaccine, most new cases are caused by the delta variant.