

COVID-19 Update prepared by Joel Olah, Executive Director, Aging Resources of Central Iowa

The following is a summary of two national webinars for health care professionals on COVID-19, long-COVID, emerging subvariants, RSV (Respiratory Syncytial Virus), seasonal influenza, and other vaccines that I participated in on November 15 and 18. This is the 22nd update.

As the holiday season approaches and family and friends gather indoors, the risk of super-spreaders from a variety of viral infections increases significantly. Unfortunately, the rate of individuals who have accessed vaccinations thus far is low: less than 50% for seasonal influenza, less than 30% for RSV, and less than 15% for COVID-19. Immunity builds in strength to a peak within a few weeks after inoculations. To assist with screening, four free COVID antigen test kits are available to order at <https://special.usps.com/testkits>.

COVID-19 and Subvariants

Given the rapid mutation rate of RNA-based viruses, COVID-19 subvariants continue to change. Now subvariant EG.5 is reducing at 21.7% and HV.1 is expanding at 29% of all cases, other lineages are less than 10%. Current monovalent vaccines Moderna, Pfizer-BioNTech, and Novavax appear to reduce the risk of severe disease in vaccinated individuals. The administration of antivirals Paxlovid (nirmatrelvir/ritonavir) and Lagevrio (molnupiravir) have demonstrated significant reductions in hospitalizations, especially in older individuals (75+). As of November 18, some 20,000 individuals were hospitalized due to COVID-19 infection across the U.S.

It is estimated that of the total number of individuals that have been infected with COVID-19, 10% have experienced long-COVID. With less than three years of research experience with long-COVID (Post-Acute Sequelae of SARS-CoV-2 Infection), there is no case definition, only a wide range of persistent (more than 6 months) post-COVID symptoms: respiratory, cardiac, neurological, digestive, mental (brain fog), fatigue, fever, joint/muscle pain, and rash which can occur in any part of the body. This presents a significant challenge for health care providers. Clinical testing has shown reductions in grey matter in the orbitofrontal cortex, markers of tissue damage in regions connected to the primary olfactory cortex, a greater reduction in global brain size, impairment of intracortical GABAergic activity in the brain, lower cortisol levels, platelet dysfunction, exaggerated humoral responses, and serotonin depletion. The latest recommendation for providers is to focus on the prominent symptom(s). Effective post-COVID care might include: facilitating standardized, trauma-informed approaches to assessing symptoms and conditions, setting expectations for outcomes with patients and family members, providing holistic, patient-centered care management to improve patient quality of life/functions, partnering with patients to identify achievable health goals, continuing follow-up over the course of the illness, partnering with specialists, and connecting patients with available social services.

As mentioned previously, promising areas of clinical research indicate brain fog reduction has been demonstrated by utilizing a combination of Tenex (guanfacine), a treatment for hypertension and ADHD and n-acetylcysteine, an anti-oxidant treatment for liver disease (Yale researchers). Other clinical trials continue with the following medications: Inderal (propranolol), Florinef (fludrocortisone), Mestinon (pyridostigmine), Provigil (modafinil), Nuvigil (armodafinil), and Symmetrel (amantadine) which are treatments for hypertension, hypotension, muscle weakness, narcolepsy, and Parkinson's Disease.

RSV

In mid-October, RSV cases increased sharply to match the highest level since January last year. Adults over 60 with underlying medical conditions are at particular risk for RSV. These conditions include chronic obstructive pulmonary disease, asthma, and chronic heart failure. RSV can exacerbate these conditions, leading to pneumonia, hospitalization, or death. The reformulated RSV vaccines Arexvy (RSVPreF3) and Abrysvo (RSVpreF) are 80-90% effective in protecting older adults from the virus.

Challenges

The times may be challenging, but the need to communicate the latest scientific information is critical to public health. If we do not follow the reasonable guidelines of inoculations, effective personal hygiene, and preventive health strategies, we may find ourselves repeating a very dark chapter in our history. Saving lives is in our hands.