July 8: Risk of Delta Variant in Vaccinated Individuals, Updated Vaccine Options and Reminder to Complete Daily Screenings

*Today's issue features information from **Infectious Disease Specialist Egon A. Ozer, MD, PhD**, about the risk posed by the delta variant in individuals who have been vaccinated against COVID-19. It also includes an update on vaccination options and a reminder to continue to complete the daily COVID-19 screenings when visiting an NM facility.*

RISK OF DELTA VARIANT IN VACCINATED INDIVIDUALS

The rapid development, testing and distribution of multiple highly effective vaccines against SARS-CoV-2 infection has been one of the major success stories of the COVID-19 pandemic. To date, available data from the U.S. shows that vaccination has been highly effective at preventing hospitalizations and deaths due to COVID-19. An **Associated Press analysis** of data from the Centers for Disease Control and Prevention (CDC) found that 98.9% of the more than 107,000 hospitalizations due to COVID-19 in May were among individuals who were unvaccinated or only partially vaccinated. Similarly, 99.2% of more than 18,000 deaths associated with COVID-19 in May were in unvaccinated or partially vaccinated individuals.

Throughout the pandemic, new variants of the SARS-CoV-2 virus have emerged around the world. Some of these variants have been associated with:

- Higher viral loads in the airways of infected individuals
- Greater transmission potential
- Potential to cause more severe COVID-19 disease

Starting with the Alpha variant, or B.1.1.7, first reported in the United Kingdom in December 2020, other variants of concern have subsequently been identified. The delta variant, or B.1.617.2, drove a major surge of COVID-19 cases across India in April and May.

The delta variant, through a combination of mutations in the spike protein, is thought to have an approximately 50% higher transmission potential over Alpha variant viruses, which themselves had a 50% increase in transmission potential over the original SARS-CoV-2 virus. In addition, evidence suggests that infections with delta variant viruses may be associated with increased severity of disease. One **study found** that risk of hospitalization was approximately double, especially in individuals with multiple comorbidities, but further study is needed to validate these findings. The highly transmissible nature of the delta variant has led to it becoming the dominant lineage in the United Kingdom, and its prevalence in the U.S. is also increasing: It has **caused approximately 40%** of new infections in the U.S. in the past 30 days.

There is concern that mutations in the SARS-CoV-2 spike protein, the main target for all vaccines currently available in the U.S., would result in decreased efficacy of the vaccines against variants of the virus, including the delta variant. Early studies have shown, however, that full vaccination still provides considerable protection against the delta variant. A **study** in the United Kingdom demonstrated that although the Pfizer-BioNTech mRNA vaccine had a 33% efficacy against infection by the delta variant with a single dose, two weeks after receiving the second vaccine dose, the vaccine provided 88% protection. **Another study reports** that in those who received the single-dose Johnson & Johnson vaccine, neutralizing antibody levels against the delta variant remained high, with only a 1.6-fold reduction relative to older versions of the virus.

It remains to be seen whether the in-vitro results for the single-dose vaccine translate to preserved protection from severe infections in vaccinated individuals, but current results are encouraging. In summary, the COVID-19 vaccines available in the U.S. maintain considerable activity against delta and other circulating variants of concern, but the increased transmissibility and potential increase in disease severity associated with delta pose a significant risk to unvaccinated and under-vaccinated individuals.

For more information about COVID-19 vaccination, please visit the **Vaccine and Treatment Resources page** on Physician Forum and **NM Interactive** (login required).

VACCINATION OPTIONS UPDATED
The vaccination process has been updated for both the Johnson & Johnson and Pfizer-BioNTech vaccines.

Johnson & Johnson
The one-dose Johnson & Johnson COVID-19 vaccine is available for members of the workforce and patients on a walk-in basis:

- At select Northwestern Medicine Immediate Care Centers
- For patients and employees 18 and older
- On Wednesdays and Saturdays from 8 am until 8 pm

Employees and physicians must show their NM badge when they sign in at an ICC to get the vaccine.

Pfizer-BioNTech
Members of the workforce age 16 and older can continue to make an appointment to receive the Pfizer-BioNTech COVID-19 vaccine series at one of four NM Occupational Health clinics. A parent or guardian must accompany anyone under 18 years of age. Please note that walk-in vaccination is not an option to receive the Pfizer-BioNTech COVID-19 vaccine.

Staff should call their desired location to schedule an appointment:

- Lake Forest Hospital – 312.694.0800
- Delnor Hospital – 312.694.0800
- Northwestern Memorial Hospital – 312.926.8282
- McHenry Hospital – 815.759.4224

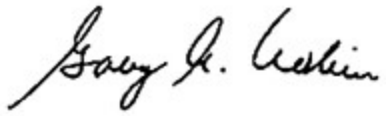
For patients, the Pfizer-BioNTech vaccine is available at select outpatient clinics throughout the health system. For schedules and details, visit the **COVID-19 Vaccines page** on nm.org.

Talking to patients about vaccination
COVID-19 vaccination is strongly encouraged for everyone eligible at this time. **If a patient asks for information or recommendations about receiving the vaccine and you are not their healthcare provider, refer them to their provider** or **nm.org/covid-19**.

CONTINUE TO COMPLETE DAILY COVID-19 SCREENINGS
With the recent updates around capacity restrictions and masking guidelines in administrative spaces, please note that the CDC and Occupational Safety and Health Administration (OSHA) both continue to require symptom screening for employees and physicians upon entering healthcare facilities. In addition, OSHA requires employers to screen each member of the workforce before every shift and note those who do not pass the screening. **All physicians and providers must complete the symptom attestation whenever entering an NM facility.**

As a reminder, you can complete the daily screening on the NM Workforce app on a mobile device or by visiting **nmsymptomcheck.nm.org**. You will need to log in with your NM username and password, and select COVID-19 Daily Attestation.

As the prevalence of the delta variant increases, individuals who have not been vaccinated are particularly vulnerable. Since the available vaccines provide significant protection against this variant, please continue to encourage your colleagues and patient to get vaccinated.



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