

Pucillo Family Practice PA
1111 Hwy 6 North, Suite 40
Sugar Land, TX 77478

T: 281-340-9355
F: 281-340-9366

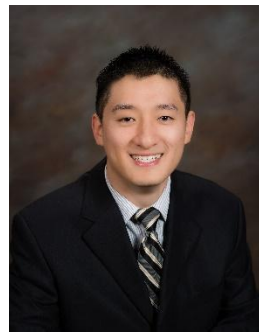
PUCILLO FAMILY PRACTICE P.A.
 WELLNESS CENTER

Family Medicine & Bariatrics

PFP June Newsletter: COVID Variants and Updates



Dr. Ron Pucillo, M.D.



Dr. Brian Tong, M.D.

Fun facts in June:

June is international men's month.

June 20th - summer solstice day. This marks the start of summer and the longest daylight of the year.

June 24th - midsummer day. This is halfway between planting and harvesting.

Outline of this month's newsletter:

- COVID nomenclature updates
- COVID delta variant
- Vaccine and cardiac manifestations



COVID New Nomenclature

WHO's nomenclature

- On May 31, 2021, WHO (World Health Organization) announced a naming system to identify different variants of SARS-CoV-2 virus
- Using Greek alphabet, it hopes to provide easier identification

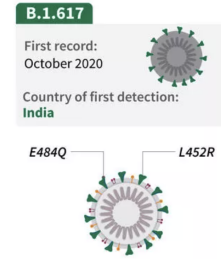
Classification of variants

| | Disease severity | Transmissible | Effectiveness of treatment | Example Variants |
|-------------------------------------|------------------|---------------|----------------------------|------------------|
| Variants of Concern | ↑↑↑ | ↑↑↑ | ↓↓ | α, β, γ, δ |
| Variants of Interest | ↑ | ↑ | ↓ | ε, ζ, θ, ι, κ |
| Variants of High consequence | possible ↑ | possible ↑ | possible ↓ | TBD |

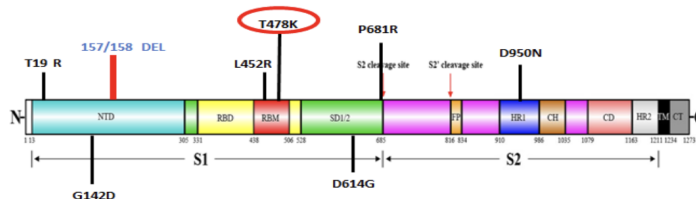
| Variants of concern | | | Variants of interest | | |
|---------------------|-----------|--------------------------|----------------------|---------------------|--------------------------|
| WHO label | Lineage | First documented samples | WHO label | Lineage | First documented samples |
| α Alpha | B.1.1.7 | UK Sep. 2020 | ε Epsilon | B.1.427/ B.1.429 | USA Mar. 2020 |
| β Beta | B.1.351 | South Africa May 2020 | ζ Zeta | P.2 | Brazil Apr. 2020 |
| γ Gamma | P.1 | Brazil Nov. 2020 | η Eta | B.1.525 | Multiple Dec. 2020 |
| δ Delta | B.1.617.2 | India Oct. 2020 | θ Theta | P.3 | Philippines Jan. 2021 |
| | | | ι Iota | B.1.526 | USA Nov. 2020 |
| | | | κ Kappa | B.1.617.1 | India Oct. 2020 |

SARS-CoV-2 Delta Variant

- Origin
 - Delta's predecessor B.1.617 was initially found in Maharashtra, India in October 2020. It underwent 2 spike mutations - E484Q and L452R, which evolved into 3 variants → B1.617.1, B1.617.2, B1.617.3
 - **B1.617.2**, also known as the delta variant is the most dangerous
- B1.617.2
 - India - In April 2021, it had become the most commonly reported variant in the country.
 - U.K. - It is expected to become the dominant virus by July 2021.
 - U.S.A - accounts for 10% of newly diagnosed COVID cases as of 6/14/2021.



- What makes it more dangerous?
 - It carries more than a dozen mutations which makes it more transmissible and more evasive against antibodies.

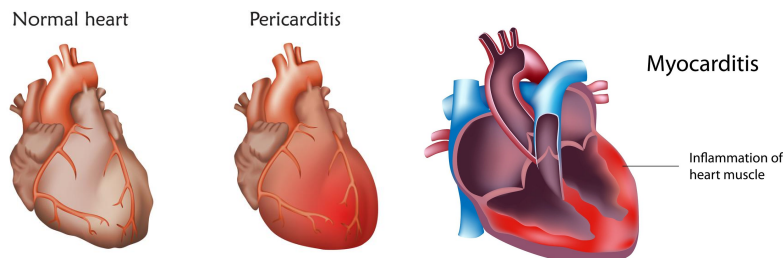


- Symptoms
 - commonly found to have **headache**, sore throat and runny nose
- How effective are vaccines against the delta variant?
 - Preliminary studies shows the following effectiveness:
 - Pfizer - 33% after 1st dose, 88% after 2nd dose
 - Astrazenica - 33% after 1st dose, 60% after 2nd dose
 - Moderna - expected to be just as effective as Pfizer

Vaccine and Inflammation of the Heart

Adverse effect of pericarditis or myocarditis after receiving Pfizer or Moderna?

- VAERS (vaccine adverse event reporting system) reporting
 - 789 reported cases of myocarditis or pericarditis after 1st dose, 573 after 2nd dose
 - symptoms were commonly seen 3 days after 1st dose and 2 days after 2nd dose
 - ½ of the cases seen in 30 years and younger
 - 81% reported full recovery, the rest did not follow up or continues to have ongoing symptoms
- Terminologies
 - Myocarditis - inflammation of the heart muscle
 - Pericarditis - inflammation of membranous tissue surrounding the heart
- Symptoms
 - Chest pain, shortness of breath, palpitations
- Reviewing the numbers
 - Compared to overall vaccines given
 - 2.8 cases/1,000,000 after 1st dose, 16.1 cases/1,000,000 after 2nd dose
- CDC is undergoing further review at this time. More to follow



We continue to wish you all the best. Please feel free to contact us if you have any questions.

Sincerely,
Staff at Pucillo Family Practice