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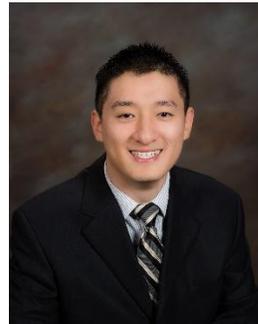
PUCILLO FAMILY PRACTICE P.A.
 WELLNESS CENTER

Family Medicine & Bariatrics

PFP Jan 2022: Omicron COVID infection, COVID testing, update COVID treatments



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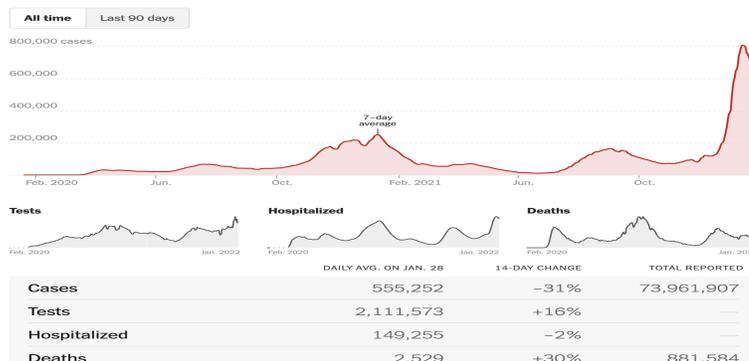
Happy lunar new year, the year of the tiger. You are a tiger if you were born in 2022, 2010, 1998, 1986, 1974, 1962, 1950, 1938. Tiger is a symbol of brave, competitive, confident and will power.

January 2022 newsletter:

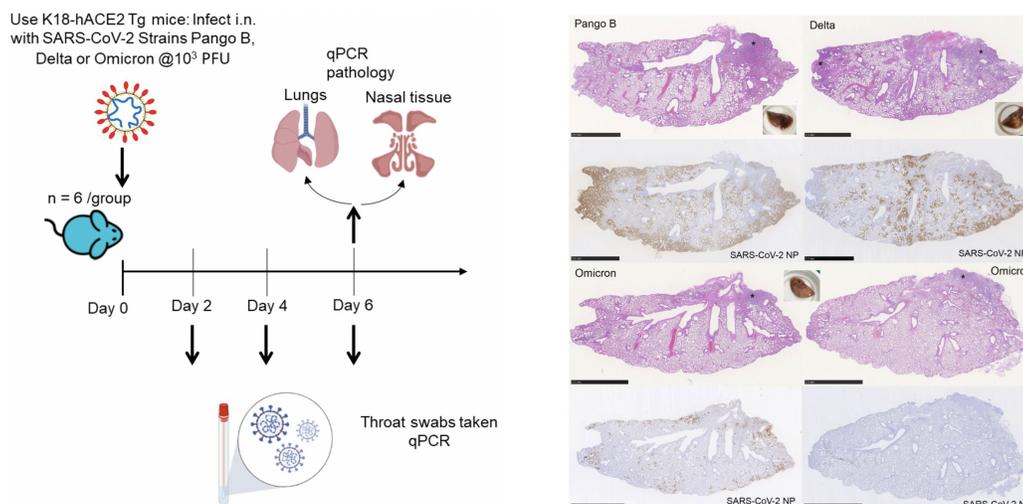
- Omicron COVID infection
- COVID testing
- Update on COVID treatments

Omicron COVID infections

- COVID cases have declined in the past few weeks. As of Jan 29th, US averaged 555,252 cases per day, a -31% decrease in 14 day average.



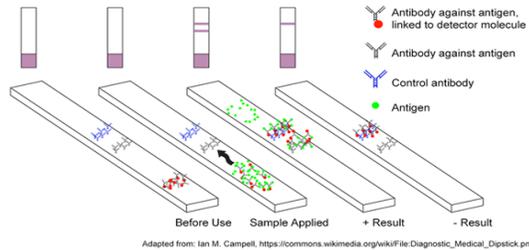
- The virus has affected both immunized, boosted, and non immunized individuals.
- Symptoms classification
 - Asymptomatic - tested positive for COVID without any symptoms
 - Mild - fever, cough, sore throat, malaise, headache, muscle pain, nausea, vomiting, diarrhea, loss of taste and smell
 - Moderate - shortness of breath, dyspnea, or abnormal chest imaging
 - Severe - moderate symptoms and O₂ <94%
 - Critical - respiratory failure, septic shock, and/or multiple organ dysfunction.
- In a study in Hong Kong, it has been shown the Omicron virus affects less in the lungs. (<https://www.biorxiv.org/content/10.1101/2021.12.26.474085v2.full>)



- COVID Alpha, Beta and Delta infected animals. Histologically, there are large areas of consolidation (infection) (*).
- COVID Omicron infected animals. Histologically, the lung parenchyma appears widely unaltered. There are only small patches of consolidation (infection)(*).

COVID testing types

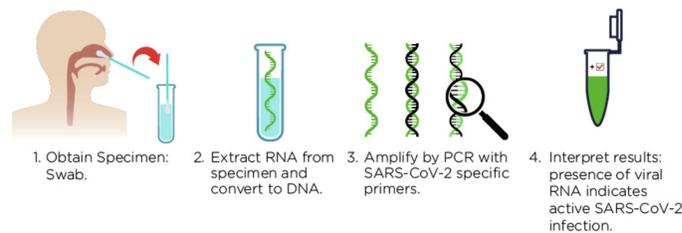
- Rapid antigen testing
 - It detects presence of virus-specific proteins, called antigen. Advantage - **fast!**



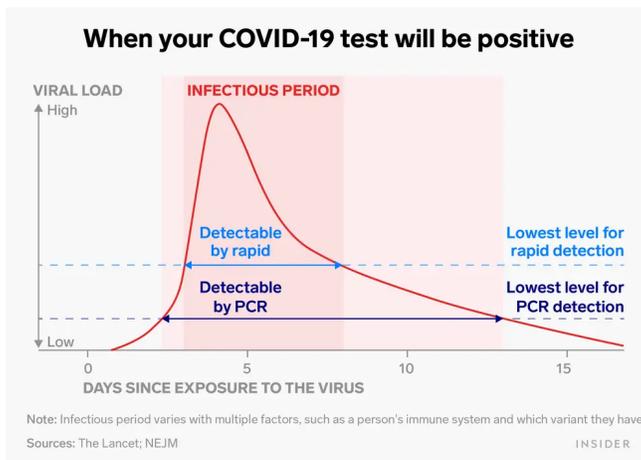
- PCR testing
 - It detects genetic material of the virus. Advantage - **more accurate!**

Molecular Tests (Nucleic Acid Detection)

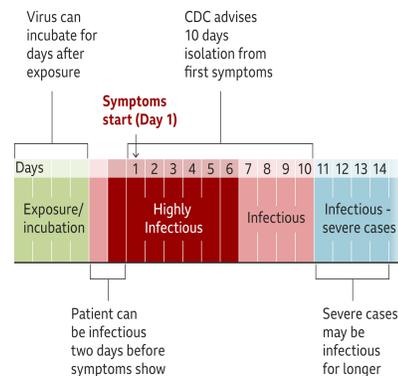
Diagnose active SARS-CoV-2 infections



- When is one contagious after contracting the virus?
 - Data suggests infected individuals are **most contagious 2 days before the onset of symptoms and 2-3 days after (World Health Organization)**
 - Depending on the severity of COVID symptoms, most people will no longer be contagious within 14 days if all symptoms have resolved. (*World Health Organization*)

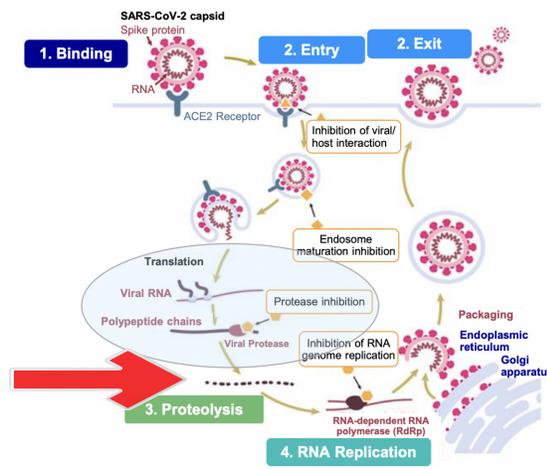


Coronavirus - when do symptoms start and how long does risk of infecting others last?



COVID Treatments for high risk patients

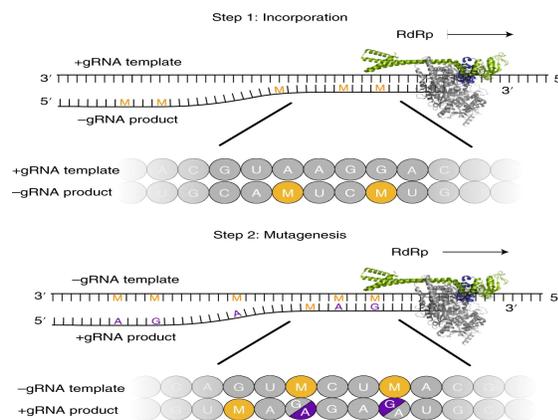
- IV antibody treatments
 - **Sotrovimab** - was found to be the effective monoclonal antibody treating Omicron variant
 - Other monoclonal antibodies including bamlanivimab + etesevimab and REGEN-COV (casirivimab and imdevimab) were found to be less effective
- Oral treatment (2)
 - Pfizer - **Paxlovid** - disrupt virus replication, 89% reduction in hospitalization



PAXLOVID is 300 mg nirmatrelvir (two 150 mg tablets) with 100 mg ritonavir (one 100 mg tablet) taken together orally twice daily for 5 days

Paxlovid inhibits protease - causing inhibition of SARS-CoV-2 replication

- Merck - **molnupiravir** - disruption virus replication, 30% reduction in hospitalization



MOLNUPIRAVIR is administered as four 200 milligram capsules taken orally twice daily for 5 days.

Molnupiravir increases the frequency of viral RNA mutations and impairs SARS-CoV-2 replication

We thank you for allowing us to be part of your family in 2022. Please feel free to contact us if you have any questions.

Sincerely,
Staff at Pucillo Family Practice