

aklomed

COVID19

Keeping Up with a Moving Target

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The faculty reported the following financial relationships or relationships they or their spouse/life partner have with commercial interests related to the content of this continuing education activity:

Name of Faculty or Presenter	Reported Financial Relationship
Paul G. Auwaerter, MD, MBA, FIDSA	JNJ: Ownership equity Scientific Consulting: Verily, EMD Serono DMSB: Humanigen

Dr. Auwaerter has indicated that he will be referencing the unlabeled or unapproved use of agents currently being investigated in on-going studies and trials, including monoclonal antibodies, baricitinib, and several vaccine platforms.

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CME Information

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Learning Objectives

- Discuss the current knowledge of the omicron variant



Thank You

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Omicron

The latest VOC: B.1.1.529 novel variant SARS-CoV-2

University Students on Bus Trip to Western Cape, South Africa

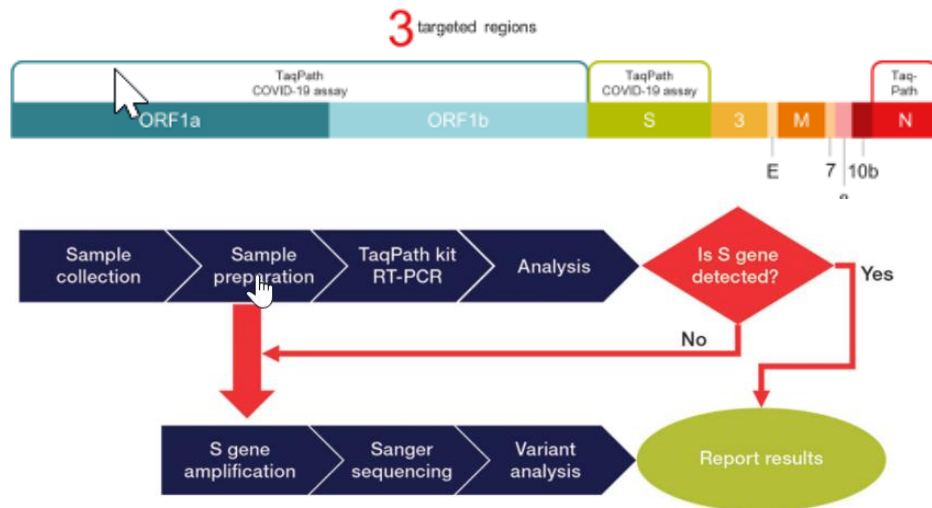


Omicron: Easier Detection?

- Some SARS-CoV-2 PCR uses three target genes
 - e.g., ThermoFisher TaqMan platform
- Omicron: one is not detected
 - called S gene dropout or S gene target failure
- Early identification as a marker for this variant pending sequencing confirmation
- Manufacturers assessing ability of their molecular platforms to detect Omicron

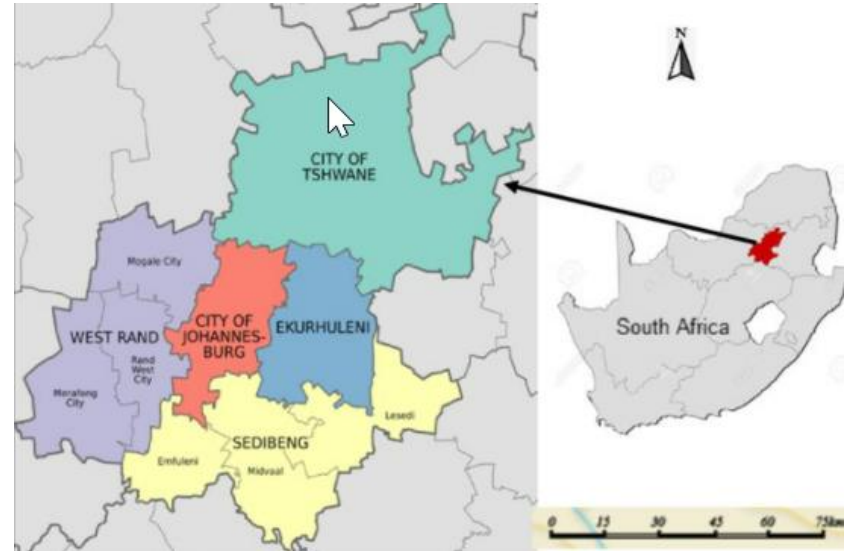
Rapid assessment in S. Africa

University outbreak (samples from Nov 12-16, 2021) led to detection of Omicron



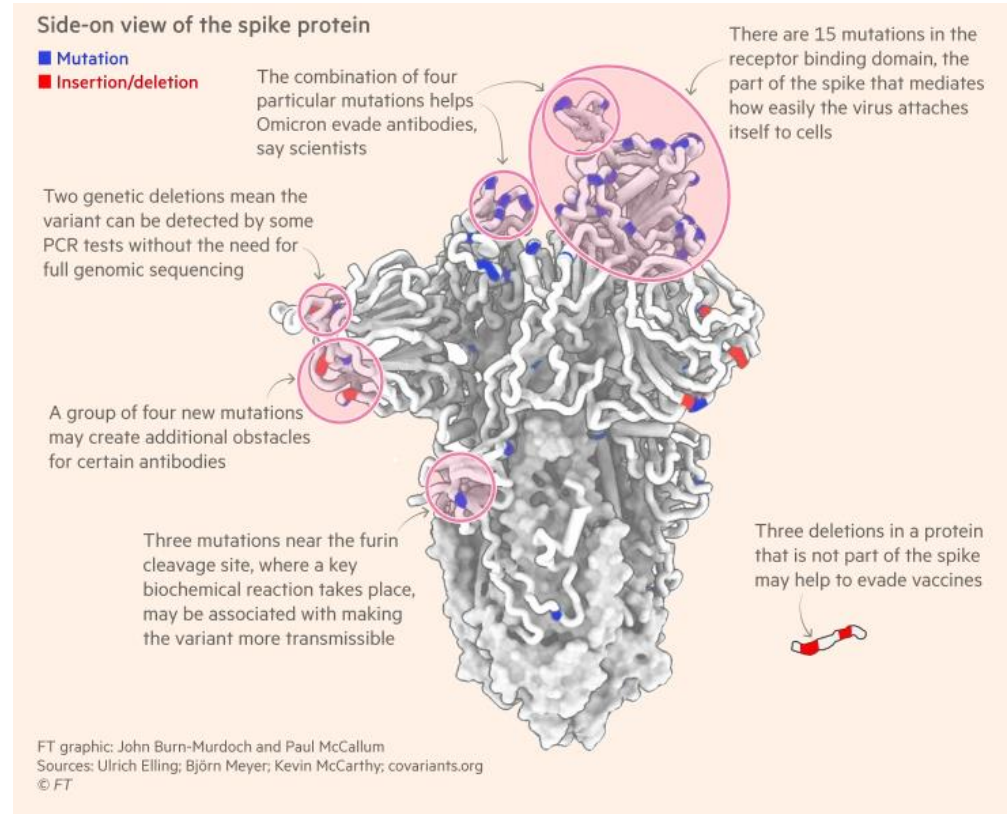
Gauteng Province

- 90% of SARS-CoV-2 isolates sequenced = Omicron
- Younger population
 - Mild illness?
 - Too early to understand transmissibility
 - No increase in hospitalizations (yet)
- Wastewater analysis in Pretoria RNA virus levels similar to Delta surge in May '21

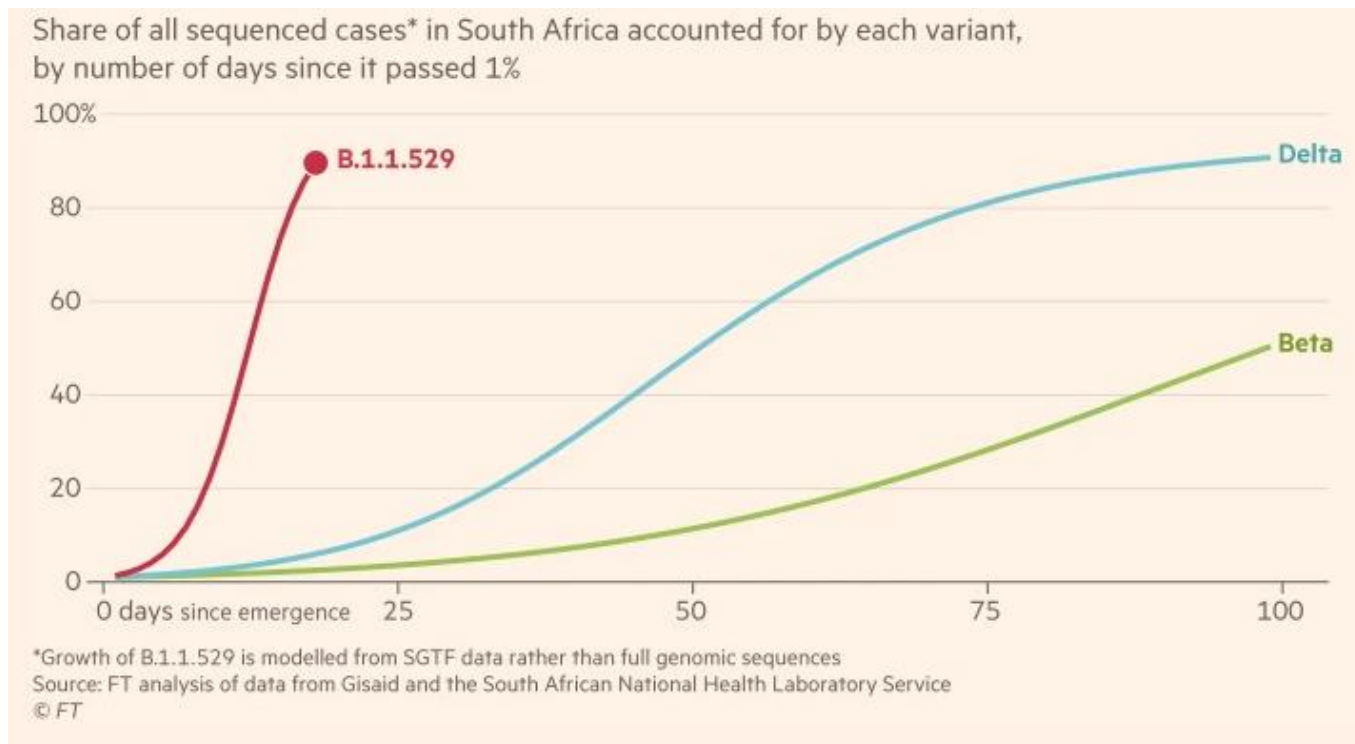


Omicron changes and theoretical problems

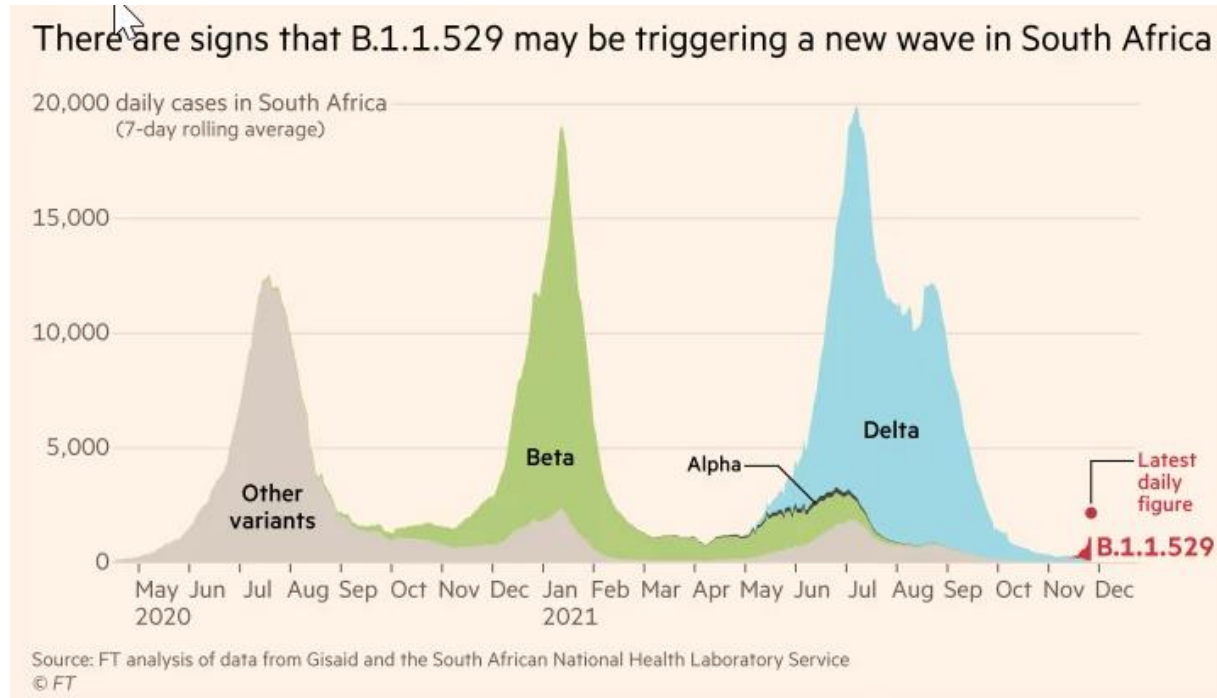
- 50 mutations in total
 - 30 in spike protein
- Incorporates mutations seen in
 - Alpha
 - Beta
 - Gamma
 - Delta
- Mutations in RBD + nucleoprotein = resistance to neutralizing abs?
- Nucleocapsid mutations = increased transmissibility?



More Transmissible?



South Africa SARS-CoV-2 Cases



Omicron Unknowns

- Degree of spread
 - Isolates detected in Botswana, Hong Kong, Canada, UK, Belgium
- Transmissibility
- Severity
- Impact on vaccine-induced neutralizing antibodies



**Do you think the rapid antigen tests can
detect omicron variant?**



Will remdesivir and monoclonal antibodies still be active against this variant?



**What are your recommendations
about holiday and travel plans,
particularly in light of this variant?**



Thank You!

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To ask your own question, email:

- QA@dkbmed.com