JULY 2022

Cerba Lancet Africa

Newsletter

INTERPRETATION OF COVID-19 RT PCR POSITIVE & NEGATIVE RESULTS ON SEQUENTIAL SAMPLES

Compiled by: Dr. Allison Glass

RT-PCR for SARS-CoV-2 is a diagnostic test designed for detecting the virus in respiratory samples of symptomatic individuals.

- It is therefore very specifc, so positive results are real sensitivity however is lower and false negative results may occur in up to 20% of swabs done, especially in mild or asymptomatically infected individuals.
- Referring doctors and patients usually have difficulty in interpreting these results, particularly when performed sequentially on patients, resulting in **negative/positive or positive/negative discordance**s.

Reasons for these discordances include:

A positive result followed by a negative one:

- *"NICD"* recommends that patients who test positive are treated as such and isolated and their contacts traced.

A low positive result (ct value37-40) may be followed by a second negative swab if:

- i. The patient is nearing the end of their infection and has stopped secreting virus
- ii. The second swab wasn't taken from infected epithelium resulting in a false negative result
- iii. The patient is an intermittent secretor and was not secreting virus when the second swab was taken
- iv. The second result was obtained using a less sensitive assay than the first one

The complex viral dynamics of this infection, complicated by the differing sensitivities of assays used by various laboratories, causes result discordances and variable RNA shedding at different times can cause results discordant between different laboratories.

Note: the HIV-1 DNA PCR only detects HIV-1.

If infection with HIV-2 is suspected, an HIV-2 PCR can be done.

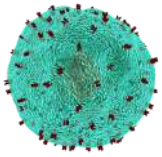
A negative result followed by a positive one:

a. The first swab was taken just before virus secretion began

b. The first swab wasn't taken from infected epithelium resulting in a false negative result

c. The patient is an intermittent secretor and was not secreting virus when the first swab was taken

d. The first result was obtained using a less sensitive assay than the second one



References:

World Health Organisation. WHO recommendations on the diagnosis of infection in infants and children. WHO Press 2010. ww.who.int/ entity/ hiv/ pub/ paediatric/ diagnosis/en/ index. html, accessed January2022.

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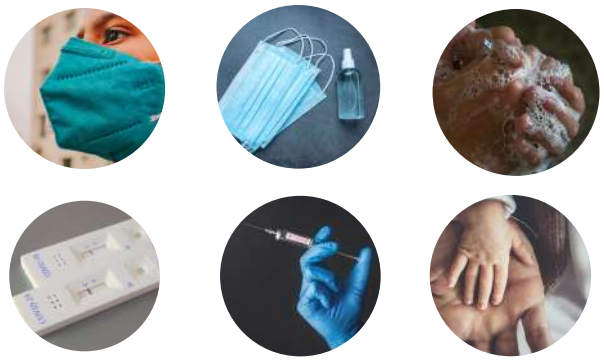
COVID-19 PANDEMIC NIGERIA

Compiled by: Dr. Kenechi Adinnu

The Corona Virus disease 2019 (*COVID-19*), is a disease caused by SARS-CoV- 2 an *infectious respiratory virus*. It was first reported in Wuhan China in 2019, and has since then spread to over 213 countries, with up to 5,934,936 cases globally as of 31st of May 2021

The virus generally spreads between persons during close physical contacts, most often through small respiratory droplets produced by sneezing, coughing, and when talking. It can also spread by touching contaminated surfaces subsequent inadvertent touching of the face, nose, and eyes with unwashed hands.

- After the first case of Covid-19 was diagnosed in Nigeria on 27th of February 2020, there have been several lock-downs and policies to curb the spread.
- Prior to the COVID vaccinations more than two-thirds of the world population have experienced lockdown measures, lasting from weeks to months.
- This has affected the physical, social, economic, reproductive and mental health of most people across boards.
- In recent times vaccinations kicked in and about **2.1 billion people** round the world have been fully vaccinated for **COVID 19 as of 6th of July 2022** of that population just about **21million are fully vaccinated in Nigeria**.
- Regardless of vaccination status the disease still can affect anyone however, it is less aggressive on those who are fully vaccinated and the vaccines offer a protection against COVID for at least 6 months.



The **NCDC** has warned that this July they have recorded **a rise** in the number of **infected people** in some states in Nigeria. Therefore, precautions need to be taken to avoid **another wave of the virus**.

1. Remember to wear your face mask when in public places or when in company of people.
2. Wash your hands with soap and water frequently or and regularly use the hand sanitizer.
3. Get fully vaccinated.
4. Avoid crowds if you feel sick or have any COVID symptoms

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