



Frequently Asked Questions New Strain of SARS-CoV-2 in South Africa

Background

Q If we become infected do we need to know whether or not it's the original virus or the new virus? Does the new virus need different clinical management compared to the original virus?

A No, the clinical management remains exactly the same – that is oxygen therapy when people need it, steroid medication (dexamethasone) for people with more severe disease, and blood-thinning medication to prevent blood clots, a common complication of Covid-19. It is important to note that the main therapy that has been proven to reduce mortality is dexamethasone and that targets the overactive immune response to the virus, not the virus itself.

Q The new variant of infection leads is associated with a higher viral load. Does this mean a higher rate of transmission?

A We do not know for sure that it is associated with a higher viral load, but some of our findings suggest that might be the case. We need to gather more information to help us understand this as certainly one of our main concerns is that the virus could spread more easily.

Q Is the new variant associated with worse disease?

A At this stage, this is not clear. This strain appears to be associated with a higher average viral load than other strains. While studies on other strains did previously suggest that higher viral loads were associated with a more severe disease course, whether this is true of the new strain too is something that remains to be determined. Studies are being undertaken to try to determine this. However, it is important to note that at this stage, there is no clear evidence of the new strain being associated with more severe disease or worse outcomes.

Q Is this the same or different to the London strain?

A It is definitely not the same variant, but there are similarities as they both share the same change in the spike protein at the 501 position. What it does tell us is that if we do not control the spread of the virus then we give an opportunity for the virus to evolve, and it will evolve in similar ways in different parts of the world.

Q 6. How long until you have more information on this mutation?

A A lot of people are working around the clock to learn more about this and to understand the significance of the finding. We will release more information as and when there is important information to share, which will be an ongoing process. It is also important to make clear this is a global effort and we will be working with scientists around the world to understand the significance of this finding.

Q What is the geographical distribution of this mutation?

A Currently this mutation has been identified in Eastern Cape, Western Cape and Kwa Zulu Natal, however testing in other provinces is still needed to understand full geographical spread.

Clinical Information

Q Are the symptoms different to current strains?

A At this point we do not yet know, although there is no reason to think the types of symptoms you get will be different. Patients will in all likelihood present with the same spectrum of symptoms as before. Whether the overall severity will be different remains to be seen.

Q Will the management strategies change?

A Therapies which were effective against the original strain, such as dexamethasone, can be expected to work against the new strain too.

Q Can you get reinfected with the new strain if you have already had Covid-19 from one of the older strains?

A This is not known at present. This will be an area of intense study in the coming weeks and months. However, at present, we strongly encourage those who have previously had Covid-19 to continue to adhere to non-pharmaceutical interventions like wearing masks in public, social distancing, avoiding large gatherings, and hand hygiene.

Prevention (Non-Pharmaceutical Interventions)

Q Do these changes in the virus change the way the virus is spread from person to person?

A No, they do not. The virus still has the same proteins and the same way of entering the body and causing illness. The virus will still be spread by droplets and by contact with surfaces where the virus has been.

Q What do these changes in the virus mean for prevention measures like social distancing, mask wearing and sanitizing?

A Prevention measures like social distancing, mask wearing and sanitising still remain the best ways of preventing infection. There is no change to these messages and to the actions that we need to take. Rather than relax our guard, we need to do all we can to prevent transmission.

Vaccines

Q Does the delay in payment to the COVAX facility mean that we will not get COVAX vaccines or that we will get them after many other countries?

A The National Department of Health anticipates that we will get a small quantity of vaccine through the COVAX facility in the second quarter of 2021. In addition, we anticipate that over the next few months additional vaccines will be found to be safe and efficacious, and this is likely to increase the numbers and types of vaccines available through the COVAX facility.

Q Is the National Department of Health talking to vaccine developers to secure other doses of vaccine?

A Yes, the National Department of Health is in discussion with other companies who are at the forefront of clinical trials to explore whether their product is suitable for a South African setting, and if there is a possibility of vaccine supply at an affordable price.

Q Is the South African Health Products Regulatory Authority (SAHPRA) reviewing any vaccine application?

A Yes. The first application to SAHPRA for a Covid-19 vaccine is from Johnson & Johnson and has been submitted as a rolling review. This means that the company will sequentially submit data to SAHPRA as it becomes available. Other vaccine developers have also been in discussion with SAHPRA. All Covid-19 related applications are being fast tracked and SAHPRA has a specialist Covid-19 vaccine Committee to rapidly review all Covid-19 vaccine applications. SAHPRA is also working with other regulatory authorities in the African region and globally, as well as, with the World Health Organisation, to harmonise and accelerate the regulatory review of vaccines.

Q Will the new variant have an impact on the effectiveness of vaccines?

A It is not currently known whether or not this mutation will impact on the effectiveness of vaccines. More research is needed to see whether or not this is the case, and in the event that the mutation significantly reduces vaccine efficacy further vaccine development will be required.

The Health System

Q Is the health system preparing for the resurgence of case presentations?

A The National Department of Health has issued an advisory to all provinces to scale the treatment facilities in a stepwise manner to meet the progressive demand for hospitalisation during the second-wave resurgence. This includes increasing the proportion of beds available to patients presenting with symptoms for investigation or admission. In addition, the bed occupancy status in each district (both private and public) is closely monitored by the DATCOV system managed by the National Institute for Communicable Diseases. The scaling of infrastructure to deliver oxygen is a focus of the Department of Public Works and Department of Health, aimed at providing liquid oxygen and reticulation at district hospitals throughout the remote districts of South Africa. The Department of Health is working closely with the providers of oxygen to monitor the consumption and resupply in all provinces. Medicine distribution and availability is continuously monitored by each provincial pharmacy division. The availability and provision of personal protective equipment (PPE) to healthcare workers is monitored in each province and by the National Department of Health. In various

provinces new and additional positions for healthcare workers have been advertised, applications should be directed to the Provincial Department of Health.

Q What steps are the private and public hospitals taking to increase the available Covid-19 treatment bed numbers?

A In accordance with the resurgence guidelines, each province has been requested to increase the proportion of hospital beds for Covid-19 admissions. In the first instance this is undertaken by dedicated beds and wards, then increasing the proportion of beds available to Covid-19 in each hospital, followed by a reduction in elective procedures. At the peak, the proportion of hospital beds available to Covid-19 may rise to 85% of all hospital beds in the district. Oxygen therapy is a key element of Covid-19 treatment, and all high-care and Intensive Care Unit (ICU) beds may be occupied. A reserve capacity for non-Covid admissions is maintained, focused on maternal-child health and deliveries and emergency care. Only when the patient numbers are expected to exceed the available hospital bed capacity are the field hospitals activated. In addition, each province is requested to plan step-down and isolation facilities to support the patients who cannot isolate at home.

Q Is the country prepared for the increased demand for staff, equipment, oxygen and treatment?

A The health system is under significant pressure due to the sustained Covid-19 response, potential infection and re-infection of healthcare workers, and loss of staff from the system. Although equipment has been made available, the supply of oxygen is under pressure. Many hospitals still require bulk liquid oxygen installations to facilitate the use of continuous positive airway pressure (CPAP) and high-flow nasal oxygen to treat moderate to severe Covid-19. The Emergency Medicine Services are under significant pressure, in addition the Ministerial Advisory Committee on Covid-19's advice is to reduce the number of patient transfers between towns and cities to avoid transporting severely ill patients, as transport is associated with poor outcomes.

Q Has the increase rate of infection led to a hospitals shifting resources from the routine health care and planned admissions to providing support for Covid-19?

A Yes, both private and public hospitals are under significant pressure from the resurgence in the last four weeks. Reports from multiple private hospitals in the four most affected provinces (Eastern Cape, Western Cape, Kwa-Zulu Natal and Gauteng Provinces) is that elective procedures are no longer possible. Numerous key hospitals have dedicated the High-Care and Intensive Care Units to Covid-19.

Q How is government preparing for this in terms of hospitals and healthcare workers?

A The health system is under significant pressure due to the sustained Covid-19 response, potential infection and re-infection of health care workers, and loss of staff from the system. Although equipment has been made available, the supply of oxygen is under pressure. Many hospitals still require bulk liquid oxygen installations to facilitate the use of CPAP and high-flow nasal oxygen to treat moderate to severe Covid-19. The Emergency Medicine Services are under significant pressure. In addition, the Ministerial Committee on Covid-19 has advised to reduce the number of patient transfers between towns and cities to avoid transporting severely ill patients, as transport is associated with poor outcomes.

Testing

Q Where did this new strain come from – could it have escaped from a lab?

A SARS-CoV-2, like all other viruses, mutates as a natural process.

Q Will the PCR and rapid antigen tests be able to pick up the new strain?

A The current PCR tests employed by South African testing laboratories will detect the mutated SARS-CoV-2 lineage. The mutated lineage from the Eastern Cape province has been detected in over 150 samples using South Africa's current repertoire of real-time PCR tests. In addition, each test typically detects at least two or three different gene targets to act a backup in the case of a mutation arising in one.

Q Will the antibody test be able to detect it?

A Yes, due to the high viral load in samples.

Travel and Borders

Q Will this affect international travel requirements?

A The amendments to the regulations of the Disaster Management Act that were published on 3 December 2020, Gazette 43954 will remain in effect. This includes needing proof of a negative PCR test within 72 hours of the result, screening on arrival and adhering to all Non-Pharmaceutical Intervention requirements during travel. These relate to the requirements for people travelling to South Africa through any of the ports of entry. The regulations for travel to other countries are determined by those countries and the public should check what these are if they are planning international travel.

Q Should South Africa shut its international borders?

A Given the information we currently have on this virus we do not think it is necessary to be considering closing international borders. And so international borders will remain open.

Q Will interprovincial travel be banned?

A There are no restrictions on interprovincial travel and the current regulations will continue to apply. These include requirements to adhere to the regulations relating to wearing of masks, sanitising and keeping windows at least 5cm open. Taxis travelling distances great than 200km are only allowed to be at 70% capacity.

Q What about local travel – will there be any changes?

A People travelling on public transport are urged to comply with the current regulations of wearing a mask and sanitising their hands on entering any public transport. The regulations will continue to apply *i.e.* local travel may be at 100% capacity, windows should remain open, all passengers and the driver should be wearing masks and sanitising their hands before and after travel.

Q Are there any further restrictions in movement or changes to regulations planned?

A At this stage there are no further restrictions in movement or changes to regulations per Gazette 43954 of 3 December of the Amendment of Directions issued in terms of *Regulation 4(1)(a) of the regulations made under Section 27(2) of the Disaster Management Act, 2002 (Act no 57 of 2002): Measures to address, prevent and combat the spread of COVID-19*. However this may change depending on new information as it becomes available on the mutation.

Q Will beaches remain closed?

A Yes. At this stage none of the regulations will change.

Q Are there any further restrictions in movement in South Africa planned?

A At this stage there are no further restrictions in movement planned, however this may change depending on new information as it becomes available on the mutation.

Contact Tracing, Isolation and Quarantine

Q Do the changes in the virus mean that it can make people more sick?

A At this stage we do not know. What we do know is that the changes in the virus affect the shape of the 'spike protein' which is targeted by antibodies against the coronavirus. The changes in the shape of the protein may mean that the virus can bind better to human cells or even that antibodies may not stick so well to the spike protein. It is not clear yet what changes this will make in the way people with Covid-19 get ill, or how severely they get ill. The National Institute for Communicable Diseases (NICD) and many doctors will be looking back at our records to see what we can learn from the data we already have to give us some answers to these questions.

Q Does this change the isolation or quarantine periods?

A No - isolation and quarantine remain at 10 days.

- People who have been exposed to the virus should quarantine for 10 days.
- People who are ill with Covid-19 should remain in isolation for 10 days.

Q Does this mean dogs, cats or other animals can get Covid-19?

A It is not possible to say. What we do know is that there are only a few amino acid changes in the spike protein. These changes may make it possible to bind to proteins in the upper airways of other animals, but it is unlikely.

Q Did these changes in the virus happen because of Matric Rage?

A No, the changes in the virus were already detected well before Matric Rage. However, it is likely that Rage helped to spread the new strain of the virus.

Q Is this second wave different to the first wave?

A The second wave is the same as first in most respects. The cause of Covid-19 remains the same – SARS-CoV-2. The virus still affects the same cells of the body, and causes people to be ill in the same way. From the data we have, the virus with these new changes appears to affect older people, and people with co-morbidities in the same way that the virus without changes did. This second wave may be different in some ways – it may be that people who had the virus before it changed, can now be infected with SARS-CoV-2 for a second time. It may be that the virus spreads more easily, or causes slightly more severe infection. These are all questions that the clinical doctors and scientists will be asking and watching out for.