



health

Department:
Health
REPUBLIC OF SOUTH AFRICA



Date:	16 December 2021		
To:	Dr MJ Phaahla, MP Honourable Minister of Health	From:	Ministerial Advisory Committee (MAC) on COVID-19

REDUCTION IN ISOLATION PERIOD FOR COVID-19 CASES

Problem Statement and Task to Committee

Should the isolation period for COVID-19 cases be reduced?
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Background

In the context of public health, isolation refers to the separation of a patient with a communicable disease from those who are healthy.¹ Its major public health aim is to prevent onward transmission of the disease to other individuals, and thus to contain the spread of the infectious agent. Quarantining, by contrast, refers to the separation of contacts of an identified case. Isolation is used more widely than quarantining, for a wide range of pathogens (MERS, SARS-CoV-1, tuberculosis, influenza, etc.).

In early 2020, South Africa implemented a 14-day isolation period for all confirmed COVID-19 cases. The 14 days were to be counted from the date of symptom onset in mild cases, from the date on which clinical stability was achieved in severe cases, and from date of a positive test in asymptomatic cases. This was period was reduced to 10 days in mid-2020.

Since then, the local COVID-19 situation has changed in various ways. The proportion of people with some immunity to COVID-19 (from infection and/or vaccination) has risen substantially (exceeding 60-80% in several serosurveys).² We have learned more about the manner in which COVID-19 is spread (including the high proportion of asymptomatic and pre-symptomatic spread), and also now have to contend with variants of concern whose epidemiology differs from that of the ancestral strains of SARS-CoV-2. Crucially, it appears that efforts to eliminate and/or contain the virus are not likely to be successful. Therefore, it is critical that the utility of containment efforts like isolation is re-evaluated.

A technical working group was constituted, consisting of experts from the MAC on COVID-19, the National Institute of Communicable Diseases, the National Institute of Occupational Health, and the fields of public health and infectious diseases.

Evidence review

From a public health perspective, the utility of isolation is dependent on rapidly identifying individuals with COVID-19. Unfortunately, there is good evidence that the **rate of case ascertainment in South Africa is low**. Testing is heavily biased towards symptomatic cases, but only a small percentage of cases (perhaps 16%) are symptomatic.³ Furthermore, only a limited proportion of symptomatic cases access testing, and even when testing is performed, false negative results occur.⁴⁻⁶ Thus, only a small proportion of positive cases are identified.

Furthermore, **even when cases are correctly identified and timeously isolated, the bulk of onward transmission has likely already occurred**, owing to SARS-CoV-2's high propensity for transmission around the time of symptom onset, including substantial pre-symptomatic transmission.⁷⁻¹⁰

In addition, isolation has a **substantial economic and social burden** in the current climate, including:

1. significantly depleting staffing levels at healthcare facilities and in other front line or critical workers in and outside the healthcare sector, which can threaten the integrity of these institutions;
2. significantly reducing economic and governmental activities due to high levels of staff absenteeism.

On an individual level, extended periods of isolation can result in loss of income, loss of employment, and loss of schooling time.

Vaccinated individuals typically have a shortened period of viral shedding following breakthrough infections compared to unvaccinated individuals; the difference appears to be 2-3 days shorter.¹¹⁻¹³ Furthermore, the infectivity, as measured by the proxy of a positive viral culture, may be lower in vaccinated vs unvaccinated individuals even at the same viral load.¹⁴

Recommendations

Given the limited public health utility of isolation, we recommend that:

- the period of isolation for symptomatic patients be reduced from 10 days to 7 days, but that all symptomatic cases be required to wear a mask, as mandated, at all times even at home from day 8 to day 10;
- where a symptomatic patient returns to work in a healthcare setting, an N95 mask should preferably be worn from day 8 to day 10, and contact with extremely high-risk individuals (such as severely immunocompromised patients) be avoided;
- no period of isolation be required for asymptomatic patients;
- no COVID-19 test (either PCT or antigen-based) be performed prior to a symptomatic patient returning to work after the 7-day isolation period; and
- the isolation rules be applied equally to vaccinated and unvaccinated individuals, and to high- and low-risk individuals.

For any symptomatic patient, return to work from day 8 onwards must, as always, take into consideration the patient's clinical status. Only those patients who are well enough to work should do so.

Rationale for recommendations

The period of isolation should be seen as a trade-off between its (limited) benefits and its costs, rather than as an effort to reduce the chances of onward transmission to zero for the small proportion of cases that are identified. As current testing only identifies a small minority of all COVID-19 cases, isolation serves little overall public health purpose. Furthermore, isolation is associated with both significant strain on staffing levels and costs to the individual and to the broader society.

Asymptomatic cases should not isolate at all, as a positive test does not indicate when they were infected, and shedding of non-infectious virus fragments can be protracted. Individuals are most infectious close to the time of their symptom onset. Testing prior to return to work is not feasible, as tests may remain positive for much longer than the period in which the patient is infectious.

A healthcare worker with COVID-19 is very unlikely to spread the disease to his/her coworkers in an environment where there is uniform wearing of masks, especially N95 masks (or equivalent).¹⁵ Furthermore, the viral load in vaccinated individuals drops more quickly than in unvaccinated individuals, presumably rendering them non-infectious even more rapidly.

Thank you for consideration of this advisory.

Kind regards,



PROF KOLEKA MLISANA



PROF MARIAN JACOBS

CO-CHAIRPERSONS: MINISTERIAL ADVISORY COMMITTEE ON COVID-19

DATE: 16 December 2021

CC:

- » **Dr SSS Buthelezi (Director-General: Health)**
- » **Dr N Crisp (Deputy Director-General: National Health Insurance)**
- » **Incident Management Team**

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