



# UN Medical Directors COVID-19 Testing Recommendations for UN Personnel

## Updated: December 2021

### Background

COVID-19 tests can be used for diagnosis, screening and/or policy-orientated surveillance purposes. This UN Medical Directors' document provides guidance to UN health care workers on the use of COVID-19 diagnostic tests<sup>1</sup> and how to prioritize and utilize these tests. This document is based on WHO guidelines<sup>2 3</sup> and will be updated as new information becomes available.

Please always consider local health authorities / WHO office guidance when implementing this guidance. For any questions on the material presented here, email DHMOSH's public health section at [dos-dhmosh-public-health@un.org](mailto:dos-dhmosh-public-health@un.org)

### Key Notes on COVID-19 Diagnostic Testing

- There are three types of tests for COVID-19. Please see the following infographic for more information: <https://www.who.int/multi-media/details/diagnostic-testing-for-sars-cov-2-infection>:
  1. Reverse transcription polymerase chain reaction (**rT-PCR**) test
  2. Antigen detection rapid diagnostic tests (**Ag-RDT**)
  3. **Antibody** detecting (IgM/IgG) rapid diagnostic tests (**Ab RDT**)
- This document refers primarily to rT-PCR and Ag RDT testing. **If Ag-RDTs are available in your duty station, please refer to Annex 1.**
- Please be aware that antibody tests are **NOT** recommended to be used as standalone diagnostic test to identify active infection. Antibody tests are commonly used for surveillance and research purposes. See [here](#) for more information on its limitations.
- Antibody testing should not be routinely used to check if an individual is “immune” to the SARS-CoV-2 virus
- Information on specimen collection for both rT-PCR tests and Ag-RDTs is available in **Annex 2.**

<sup>1</sup> Note that testing does not replace other infection prevention and control (IPC) recommendations.

<sup>2</sup> Available at <https://www.who.int/publications/i/item/diagnostic-testing-for-sars-cov-2>

<sup>3</sup> <https://www.who.int/publications/i/item/antigen-detection-in-the-diagnosis-of-sars-cov-2infection-using-rapid-immunoassays>



## Who Should Be Prioritized for COVID-19 Testing<sup>4</sup>?

The below describes which UN personnel should be prioritized for testing according to health objectives<sup>5</sup>.

### **Individuals with Symptoms Consistent with COVID-19/ meeting case definition for COVID-19 case**

- Individuals with symptoms consistent with COVID-19 infection should be prioritized for testing. See [here](#) for WHO guidance on which symptoms are compatible with COVID-19.
- Either PCR or antigen testing can be used in this priority group (See Annex 1).

### **Asymptomatic Contacts of confirmed COVID-19 cases (including High-Risk Contacts)**

- All COVID-19 contacts identified should be quarantined in accordance with policy of local health authorities or in absence of such policies for 14 days. According to WHO, all asymptomatic contacts can be managed in quarantine without the requirement of COVID-19 testing.
- In regions with low incidence levels of virus circulation (<20/100 000 population), waiving quarantine can be considered for close contacts who are fully vaccinated<sup>6</sup>. Close contacts are still required to closely monitor for symptoms and get tested if they develop symptoms.
- Asymptomatic contacts<sup>7</sup> who are at high risk of infection, including health care workers<sup>8</sup>, and other “high-risk”<sup>9</sup> individuals with co-morbid conditions who may require hospitalization/advanced care, are priorities for testing with antigen testing where PCR is not available<sup>4,10</sup>.
- Conversely, any contacts who turn out to have a positive test result for COVID-19 (regardless symptomatic or not), is considered as a lab confirmed “case”, and should be immediately isolated upon diagnosis. If these individuals were previously quarantined as part of a cohort, then for the cohort that was quarantined, the clock resets to day 0 due to their exposure to this new “case”, and the process is repeated. For example, if individual A is exposed and enters into a quarantine facility with a roommate, and then the roommate tests positive on the 4<sup>th</sup> day, the clock will restart, and individual A will be quarantined for another 14 days.
- The WHO does not recommend testing contacts at the end of their 14-day quarantine period in order to “discharge” them from quarantine. Contacts can be released from quarantine after the 14 days have passed.
- Unless otherwise stated by local health authorities or local WHO office, note that negative test results from a contact should not be used to shorten the quarantine period or date of re-entry to the workplace as there is always a possibility of the contact becoming ill anytime within the incubation period of 2 to 14 days

<sup>4</sup> Health care workers (HCW) are encouraged to consider testing for other causes of respiratory illness, such as influenza, in addition to testing for COVID-19. Testing for other pathogens based on differential diagnosis such as malaria, typhoid etc may also be warranted.

<sup>5</sup> Note that administrative testing requirements vary from country to country and are not covered in this document. Examples include testing mandated by airlines for travel purposes, by host country for entry/exit, by host country for declaration of “recovery” of cases, by Organization for return-to-work purposes.

<sup>6</sup> <https://www.who.int/publications/i/item/considerations-in-adjusting-public-health-and-social-measures-in-the-context-of-covid-19-interim-guidance>

<sup>7</sup> WHO’s definition of a “contact” is available at <https://www.who.int/publications/i/item/who-2019-nCoV-surveillanceguidance-2020.7>

<sup>8</sup> <https://www.who.int/publications/i/item/10665-336265>

<sup>9</sup> <https://www.who.int/publications/i/item/clinical-management-of-covid-19>

<sup>10</sup> There is no guidance available regarding how long after initial exposure should such a “high-risk” contact be tested. If one wishes to test a “high-risk” contact, it may be reasonable to test around 5-7 days after exposure, or if testing capacity allows, tests can be performed at staggered intervals.



## ANNEX 1: USE OF COVID-19 ANTIGEN RAPID DIAGNOSTIC TESTS<sup>11</sup>

- Antigen rapid diagnostic tests (Ag-RDTs) directly detect the presence of a specific viral antigen, indicating active infection on upper respiratory specimens or saliva. Such tests can be an easier and less expensive test and provide quicker results (e.g., in 10-30 minutes) compared to rT-PCR to use for widespread testing. When access to rT-PCR testing is limited, Ag-RDTs enables fast, decentralized access to direct testing of the virus, relieving the burden on the laboratory testing system.
- In general, SARS-CoV-2 Ag-RDT tests used to diagnose COVID-19 infection **should meet the minimum performance requirements of greater or equal to 80% sensitivity and greater or equal to 97% specificity**, particularly in settings where rT-PCR testing is limited/unavailable, or where it is available but with prolonged turnaround times. **See here to view the list of Ag-RDTs that have received WHO Emergency Use Listing (EUL) for SARS-CoV-2.**
- Ag-RDTs are perform best in individuals with high viral loads, which is typically in the pre-symptomatic phase (1-3 days before symptom onset) and early symptomatic phases (first 5-7 days of illness). These tests will be most reliable in settings where SARS-CoV-2 prevalence is greater or equal to 5%. In areas of low/no transmission PCR testing is preferred given the positive predictive value of the Ag-RDT will be low in this case. **Ag-RDTs should be performed on symptomatic persons within the first 5-7 days of symptom onset.**
- For asymptomatic contacts of cases the WHO recommends that Ag-RDTs can be used to screen for SARS-CoV-2 infection particularly in those who are at a higher risk of developing severe disease and/or have had high levels of exposure such as HCWs. The need for confirmatory testing with PCR is based on incidence in the community, immunity status and availability of PCR testing.
- **In the event that a negative Ag-RDT result is received<sup>12</sup>, numerous factors such as local epidemiology, clinical history and presentation should determine if a negative Ag-RDT test requires confirmation with PCR testing or repeat Ag-RDT testing (within 48 hours if PCR is not readily available).**
- **False positive Ag-RDT can occur and are more common as prevalence decreases and therefore positive Ag-RDT may require confirmatory testing depending on resources and scenario.**
- Table 1 is a summary where Ag RDTs could be considered. Please see: <https://www.who.int/multi-media/details/use-of-antigen-detection-rapid-diagnostic-testing> for more information.

**Table 1. Ag-RDTs uses<sup>4,13,14</sup>**

1. Testing of symptomatic individuals meeting COVID-19 suspect case definition
2. In various settings (dormitories, schools, care-homes etc) to detect and respond to possible COVID-19 outbreaks
3. To screen asymptomatic individuals (contacts) at high risk of COVID-19 e.g., HCW contacts of cases and other at-risk individuals.
4. To monitor trends in disease incidence in the community

<sup>11</sup> Additional reference for this Annex includes:

CDC -- <https://www.cdc.gov/coronavirus/2019-ncov/lab/resources/antigen-tests-guidelines.html>

WHO - <https://www.who.int/publications/i/item/antigen-testing-for-sars-cov-2>

<sup>12</sup> Nevertheless, it should be noted that evidence suggests that patients with COVID-19 infection who are not detectable by a high-quality Ag-RDT are less likely to be infectious (because of a lower burden of virus in the respiratory tract).

<sup>13</sup> Adapted from WHO Reference: <https://www.who.int/publications/i/item/antigen-detection-in-the-diagnosis-of-sars-cov-2infection-using-rapid-immunoassays>

<sup>14</sup> <https://www.who.int/multi-media/details/use-of-antigen-detection-rapid-diagnostic-testing>



- Table 2 includes scenarios in which Ag RDTs should not be used without rT-PCR confirmation of positive results.

**Table 2. Situations where SARS-CoV-2 Ag-RDTs are less useful, based on currently available information<sup>15</sup>**

1. When there are zero or only sporadic cases – in this situation molecular testing is preferred
2. To replace infection prevention and control measures – appropriate IPC precautions need to be used for sample collection
3. Where management of the patient does not change based on the test result, there is no benefit to testing
4. Screening prior to blood donation
5. Routine asymptomatic testing (exemption being close contacts of confirmed cases as described in Table 1)

<sup>15</sup> WHO Reference: <https://www.who.int/publications/i/item/antigen-detection-in-the-diagnosis-of-sars-cov-2-infection-using-rapid-immunoassays>



## ANNEX 2: SPECIMEN COLLECTION FOR COVID-19 TESTING

Always consult the manufacturer's insert to see what the specimen collection requirements are. In all cases, the instructions for use of any test provided by the manufacturer should be followed.

Facilities should also refer to WHO laboratory guidance available [here](#)

### Specimen Type

For rT-PCR: Nasopharyngeal swabs are recommended. Less commonly, the test can also be done on a bronchoalveolar lavage fluid or deep sputum.

For Ag-RDTs: Nasopharyngeal swabs or saliva are recommended for most Ag RDTs. In all cases the instructions for use of the test provided by the manufacturer should be followed.

### PPE Use and Infection Prevention and Control during Specimen Collection

Consider the following when collecting diagnostic respiratory specimens from a person with possible COVID-19:

- Procedure should be performed in a medical isolation space or other designated space with the door closed.
- Staff in the room should wear a filtering facepiece respirator (e.g. N95 mask or FFP2 or FFP3 standard, or equivalent), eye protection, gloves, and a gown.
- Only staff who are essential to collect the specimen should be present.
- Surfaces should be cleaned and disinfected in the room where specimens are collected.
- Whenever possible, the collection room should be ventilated between one patient and the next.

For any questions on this guidance, email DHMOSH's public health section at [dos-dhmosh-public-health@un.org](mailto:dos-dhmosh-public-health@un.org)