

*Disclaimer: We kindly ask to acknowledge that due to the diverse and heterogeneous nature of the questions and the dynamic pandemic situation some of the information might be incomplete or only correct for the time being. Thus, please consider the date and date of the last update with the below information. All available information was provided by a country representative from the PHIRI network during or in connection to the respective meeting.*

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Country	Use of rapid antigen tests (RAT)
<b>Austria</b>	RAT on broad basis (2 <sup>nd</sup> mass testing planned, e.g. for teachers); lockdown right now until 24th of January. A positive RAT could lead to isolation in case of symptoms, but in the mass testing approach a positive RAT has to be confirmed with PCR. Main reason is to identify asymptomatic persons. There is also a debate ongoing if the future visit of restaurants or concerts should be linked to a negative RAT certificate.
<b>Belgium</b>	<p>The use of RAT in BE is limited to:</p> <ul style="list-style-type: none"> <li>• SYMPTOMATIC PERSONS with suggestive symptoms for <math>\leq 5</math> days in a general practice, triage center or emergency department</li> <li>• EXAMINATION OF A CLUSTER. Currently, protocols have already been developed for the examination of clusters in secondary schools and businesses. For the examination of a cluster in a nursing home, BE awaits the results of ongoing research in this context.</li> <li>• Immediate detection of (asymptomatic) people who through occasional contact have the POTENTIAL TO INFECT many other people or to enter into contact with people at risk of serious infection; and for which effective preventive measures are not or are difficult to implement. Thus, nursing homes may consider offering screening to visitors.</li> <li>• ONE-OFF SCREENING is not strongly recommended at this time but may be considered if it is justified from a public health point of view. One-off screening should never have as main objective a relaxation of measures. However, if the measurements are relaxed for other socio-economic reasons, SPOT SCREENING can be a means of minimizing the negative consequences of these relaxations.</li> <li>• The use of RAT for children under 12 years of age is not recommended</li> </ul>
<b>Czech Republic</b>	There is a clear RAT-strategy, used mainly for people as a kind of prevention, to do something special; when there is a positive RAT and no symptoms appear, a PCR test is necessary; after RAT: certificate about the negative / positive test result, if RAT is positive and one has symptoms, PCR test is not necessary and a person is regarded as COVID positive and included in the total statistics
<b>Estonia</b>	RAT for detecting more positive cases but RAT is no standard in Estonia; In Estonia isolation cannot be shortened based on a negative RAT.
<b>Italy</b>	<p>RAT for testing persons who have been in contact with positive case, for checking persons who have initial symptoms, and for persons who have to confirm the end of quarantine or precautionary isolation. RAT also used in low symptom cases.</p> <p>In the case of RAT with positive result, a following PCR test has to be performed.</p> <p>In particular, persons who have directly contacted positive cases have to follow a period of quarantine lasting 14 days from the last exposure to the case; if no symptoms rise in the meantime, they are out of the quarantine.</p> <p>As a possible alternative, they can shorten the quarantine period from 14 to 10 days if a RAT or a PCR test, performed at the 10th day from the last exposure to the case, results negative</p> <p>Information from the Ministry of Health on the 12th of October 2020 at the following link (in Italian): <a href="http://www.salute.gov.it/portale/news/p3_2_1_1_1.jsp?lingua=italiano&amp;menu=notizie&amp;p=dalministero&amp;id=5117">http://www.salute.gov.it/portale/news/p3_2_1_1_1.jsp?lingua=italiano&amp;menu=notizie&amp;p=dalministero&amp;id=5117</a></p>

<b>Malta</b>	<p>RAT main function: airport testing to screen all arrivals without PCR test - more effective because of the amount and speed; positive RAT are retested with PCR; results are communicated in electronic form and written version; educators: could have get RAT test before starting school, but there was a huge resistance, therefore it did not happen yet;</p> <p>Isolation cannot be shortened on the basis of testing in Malta, neither PCR nor RAT; first RAT positive: then PCR test and isolation until the negative test result (mostly next day);</p> <p>In Malta the use of RAT has been strongly discouraged in order to be able to visit relatives.</p>
<b>Netherlands</b>	<p>RAT tests are being used to find more cases to ask to isolate: Yes.</p> <p>RAT tests are being used to allow test negative people to do things otherwise would not be allowed: Yes, but basic rules still need to be observed, as negativity is not guaranteed.</p> <p>It depends on the situation whether the use of RAT adds value and the lower sensitivity is acceptable.</p> <p>NB: difference between 'regular' RAT (quick result but assessment time-consuming – per analyst 60 per day vs. 600 per day for PCR) and high-throughput (600 per day).  Outbreak Management Team (OMT) advice (in Dutch) (October 12th 2020): RAT can be used in test streets with people with COVID-19 symptoms (if test shows sensitivity <math>\geq 80\%</math> (<math>\geq 90\%</math> in samples with high viral load or taken shortly after 1st day of symptoms) and specificity <math>\geq 97\%</math> and with proper implementation and communication plan.</p> <p>All guidelines for professionals: <a href="https://lci.rivm.nl/richtlijnen/covid-19">https://lci.rivm.nl/richtlijnen/covid-19</a> (available in Dutch)</p> <p>As regards RAT: RIVM (National Institute for Health and Environment) collects the information from the evaluation processes at different laboratories for the validation of RAT.  <a href="https://lci.rivm.nl/antigeensneltesten">https://lci.rivm.nl/antigeensneltesten</a> This overview is updated and published approximately once a week. Version December 23, 2020: most recent in place).</p>
<b>Norway</b>	<p>RAT are distributed widely in country as secondary option, RAT mainly used in outbreak areas and areas with high incidence, nursing homes, testing out of quarantine on day 7</p>
<b>Poland</b>	<ul style="list-style-type: none"> <li>• In the case of a positive RAT result, the person is no longer referred to the PCR test.</li> <li>• A PCR test must be done, only in case of negative RAT, if the person has clinical signs of COVID-19 or has been in contact with an infected person.</li> <li>• Positive RAT is equal to isolation and quarantine. (A positive result of the antigen test is an automatic referral to home isolation.)</li> <li>• In Poland, antigen tests are not used at airports, but especially in hospitals, E.R. (emergency rooms) and medical workers.</li> <li>• ECDC and the COVID Laboratories Coordination Team do not recommend the use of antigen testing to test individuals without clinical symptoms or documented exposure to infection.</li> <li>• A "convenience" may be the fact that a negative RAT result allows a medical worker to be released from quarantine after close contact with the infected person. The condition is daily antigen testing for this medical worker - for a period of at least 7 days. The test must be performed before starting any medical treatment. The 7-day period is counted from the day following the day of exposure to the infected person with the virus.</li> </ul>
<b>Portugal</b>	<p>RAT mostly used in outbreak situations, in schools and nursing homes, private hospitals and red cross opened shops for people before Christmas to be clear about the infection status;</p> <p>In Portugal, the airports use PCR but there is pressure to start using RAT to make the process quicker. But so far, the MoH did not accept this suggestion.</p> <p>NHS is under high pressure and is in danger of collapsing: Authorities are striving to have a better understanding how hospitals, primary care centers and nursing homes are organizing to cope with the demand also regarding vaccination.</p>

<b>Slovenia</b>	In December: RAT mainly used for mass testing and health care workers; since January they are used in long term facilities, mass testing of teachers for children with special needs, negative RAT result is also required for skiing;
<b>Spain</b>	<p>RAT are used for COVID-19 diagnostic (likewise PCR tests are).</p> <p>Recommendations RAT: symptomatic patients with less than 5 days of evolution.</p> <p>Recommendations PCR: symptomatic patients with more than 5 days of evolution and for asymptomatic close contacts.</p> <p>Specifically, at nursing homes and assisted living facilities, RAT will be preferred to PCR testing to test residents or personnel presenting symptoms if PCR results are expected to be delayed more than 24 hours. In case of asymptomatic close contacts, PCR is recommended.</p> <p>In turn, at hospital settings, either PCR or RAT are recommended for patients and healthcare workers, both in symptomatic and asymptomatic close contacts. Nevertheless to guarantee an appropriate negative predictive value, a PCR must be done in case of negative antigen test results in highly suspicious cases or close contacts.</p> <p>For institutional screening purposes in healthcare centres and nursing homes (workers, residents, prior surgery or prior admission), PCR is the recommended test.</p> <p>If population screening is advised (i.e., non-institutionalised population subgroups), the preferred option is PCR, but antigen tests could be used if PCR capacity is overloaded.</p> <p>If used, a positive antigen test in low prevalence areas requires PCR confirmation. In the case of testing kits scarcity, pooling testing could be an option.</p> <p>Strategy for early detection, surveillance and control of COVID-19 (in Spanish):  <a href="https://www.mscbs.gob.es/profesionales/saludPublica/ccayes/alertasActual/nCov/documentos/COVID19_Estrategia_vigilancia_y_control_e_indicadores.pdf">https://www.mscbs.gob.es/profesionales/saludPublica/ccayes/alertasActual/nCov/documentos/COVID19_Estrategia_vigilancia_y_control_e_indicadores.pdf</a></p>
<b>United Kingdom</b>	Situation changes enormously in the UK; RAT used mainly in high incidence areas, before people can visit nursing care homes, for pupils and teachers, travelling