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|  | EUROPEAN COMMISSION  DIRECTORATE-GENERAL FOR HEALTH AND FOOD SAFETY  Public health, country knowledge, crisis management  **Health Security and Vaccination** |

**EU health preparedness:**

**Common approach to evidence of recent recovery from COVID-19 infection for routine infection prevention and control purposes**

Draft discussion paper for the Health Security Committee February 2021

1. **Summary**

This document proposes a common EU standard for evidence of recent recovery from COVID-19 infection for the purposes of infection prevention and control purposes.

This should meet the following criteria:

* Be based on the results of an RT-PCR test for SARS-CoV-2 carried out by a recognised laboratory.
* A positive result on a sample taken from a person more than 20 days and less than 90 days prior to the date in question may be taken as evidence of recent recovery from SARS-CoV-2 infection for routine infection prevention and control purposes.
* Additional evidence, such as a note from a doctor is not required for routine purposes but may be requested in particular situations – such as if the person has ongoing symptoms or has a recent positive test for COVID-19.

This standard is not intended to replace or be used by itself to guide the care of individuals, where decisions should be based on individual assessment by a qualified physician taking all relevant information into account.

1. **Background**

All EU/EEA countries are using individual assessment of risk of COVID-19 and risk of transmission in order to guide the measures and responses. The results of COVID-19 testing are the most important measure to decide for example who should be subject to isolation or refused permission to cross a border. Many countries are also considering using evidence of vaccination to inform response measures. Linked to this is a resurgence of interest in using indicators of immunity, such as antibody tests or evidence of recovery from COVID-19.

For the individual and public authorities evidence of recovery is of benefit mainly to the extent that it is accepted as indicating a subsequent lower risk of infection and transmission of COVID-19. Establishing a link between recovery and lower infective risk is problematic for two reasons. Firstly, while it is widely accepted that previous infection provides in general some reduced risk of subsequent infection there is a lack of consensus on how much reduced risk of infection, for how long and what the individual variation is. Secondly, it is clear that a proportion of individuals who have had COVID-19 infection remain positive for tests of COVID-19 genetic material and proteins for a long time after the acute phase of their infection is over although they may not present a significant risk of infection.

**At the same time there are many who are opposed to the use of information on recovery to guide public health response.** It isargued that there is insufficient information on levels of immunity conferred by previous infection for previous infection to be useful as a guide to public health measures. Even though the majority of people who have recovered from confirmed COVID-19 infection have detectable antibodies it is argued that this does not mean either that the person cannot be infected again nor that the person cannot transmit the virus. Furthermore there are documented cases of persons getting COVID-19 more than once during a period of only a few weeks.

WHO has consistently opposed the use of ‘immunity certificates’ as part of COVID-19 response and by implication this extends to recovery certificates. WHO cites lack of scientific evidence, ethical and other considerations including privacy of personal data, medical confidentiality, potential risk of falsification or engagement in risky behaviour, stigma and discrimination[[1]](#footnote-1). In January 2021, the IHR Emergency Committee recommended to States Parties[[2]](#footnote-2) “At the present time, do not introduce requirements of proof of vaccination or immunity for international travel as a condition of entry”.

Despite these uncertainties the balance of the evidence is increasingly pointing towards the conclusion that the substantial majority, but not all, of persons who have recovered from COVID-19 do have a reduced risk of infection and this applies whether they have had symptoms or not.

ECDC has indicated that it is considered possible that a previous infection confers protection for around six months, although this may vary across age groups and between severe, mild and asymptomatic cases.[[3]](#footnote-3)

Reinfection in persons recently recovered from COVID-19 has been documented but is relatively uncommon. For example a study by Abu-Raddad et al[[4]](#footnote-4) of 133 266 laboratory confirmed cases identified 243 cases with positive swabs more than 45 days following their first SARS-CoV-2 episode of which 54 (0.04%) cases had evidence of reinfection. Although there are no documented cases of onward transmission from a re-infected case, knowledge on this is also still evolving.[[5]](#footnote-5)

Regarding prolonged test positivity in recovered patients ECDC has reported that[[6]](#footnote-6) studies in hospitalised COVID-19 cases have found that the RT-PCR test for SARS-CoV-2 could remain positive in respiratory samples up to six weeks from illness onset. Some evidence is emerging that these cases were not linked with secondary transmission. However, in the case of immunocompromised patients, the significance of prolonged viral RNA shedding for transmission remains unclear. In patients with a positive SARS CoV-2 RT-PCR test result over a prolonged period, virus culture or sub-genomic RNA detection can be used to confirm positivity for viable SARS-CoV-2.

1. **Definition of confirmed and recovered cases**

ECDC defines a confirmed case of COVID-19 as a person who has had detection of SARS-CoV-2 nucleic acid or antigen in a clinical specimen[[7]](#footnote-7). However, ECDC recommends that persons testing positive on rapid antigen test also have a confirmatory RT-PCR[[8]](#footnote-8).

There is no generally accepted definition of a recovered case. One of the purposes of this paper is to come to a working definition at least for certain uses with the EU/EEA.

It is widely accepted that the infectivity of a person with COVID-19 decreases after one week following a positive test or the onset of symptoms and that by 14-20 days after the test or symptoms the level of infectivity is very low.

The USA CDC reports that for patients with mild to moderate COVID-19, replication-competent virus has not been recovered after 10 days following symptom onset[[9]](#footnote-9). Recovery of replication-competent virus between 10 and 20 days after symptom onset has been reported in some adults with severe COVID-19; some of these cases were immunocompromised. However, with the exception of some severely immunocompromised patients the vast majority of patients with severe COVID-19 do not have evidence of replication competent virus 15 days following symptom onset.

Current practice on recovery certificates is to either rely solely on length of time following a positive test (France) or to require a combination of a proven positive test and additional information from a healthcare provider that the person has recovered (annex).

From a practical point of view, there is clearly an advantage in using solely the criterion of length of time since a positive COVID-19 test. For the vast majority of people who are more than 20 days post confirmation they will have completely recovered and not pose any significant infection risk. A very small minority will have not recovered and also not pose an infection risk. And an even smaller minority will have ongoing infection risk – mainly immunocompromised people. The addition of a requirement to have a medical opinion, doctors letter or other evidence of recovery therefore may provide an added reduction of risk provided that it can focus on excluding those with genuine risk of infectivity. The additional cost to individuals and health systems in providing such additional documentation for all persons is likely to substantial and should be set against the additional public health gain.

Taking these factors into consideration and with a view to proposing a minimum standard, which could be relatively easily applied across the EU the following is proposed for consideration by the HSC.

EU standard for evidence of recent recovery from COVID-19 infection for the purposes of infection prevention and control purposes.

This should meet the following criteria:

* Be based on the results of an RT-PCR test for SARS CoV2 carried out by a recognised laboratory.
* A positive result on a sample taken from a person more than 20 days and less than 90 days prior to the date in question may be taken as evidence of recent recovery from COVID-19 infection for routine infection prevention and control purposes.
* Additional evidence, such as a note from a doctor is not required for routine purposes but may be requested in particular situation – such as if the person has ongoing symptoms or has a recent positive test for COVID-19.

This standard is not intended to replace or be used by itself to guide the care of individuals, where decisions should be based on individual assessment by a qualified physician taking all relevant information into account.

**Annex**

**Current practice**

Many countries inside and outside of the EU have undertaken work relating to immunity certificates, recovery certificates or similar documents. These include within the EU: Estonia, Finland, France, Germany, Italy, Lithuania, Spain, and outside the EU in Australia, Chile, China, Israel, Japan, Singapore, United Kingdom, United States of America. This is a brief summary based on publicly available information and information provided to SANTE HSC Secretariat.

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| **Country** | **Current practice** |
| **Estonia** | People in Estonia have access to their electronic health records in the patient portal and in case of travel can present this data to attest their recovery from COVID-19.  It is also possible to present a certificate issued by a doctor of another country or a certified copy of the print out of electronic data from the database (e.g. analysis methodology, result, place, time, performer and details of the test). The certificate has to be in Latin or Slavic alphabet and in Estonian, Russian or English language. |
| **Finland** | Requires either a certificate of recovery or a certificate showing a negative test for COVID-19 before entry to the country.  The certificate of recovery must be issued by a reliable healthcare operator.  The certificate may be in Finnish, Swedish, English, German, Norwegian, Danish or Estonian. The certificate may be presented in hardcopy or digital format, such as a text message, e-mail or screenshot, provided that it indicates the person’s name, date of testing and the issuer of the certificate. |
| **France** | France considers people who have a positive laboratory test result for COVID-19 older than 15 days and less than 60 days as sufficient evidence of recovery from COVID-19. France does not ask for an additional doctor’s certificate. |
| **Lithuania** | Requires a certificate of recovery or negative test result from certain countries. |
| **Israel** | Provides a certificate of recovery to persons who meet the following criteria.   1. At least 10 days since a positive coronavirus test. 2. No: respiratory symptoms, gastrointestinal symptoms, fever or loss of taste or smell in the last 3 days.   The certificate of recovery can be used in place of a vaccination certificate for access to places and occupations, which are restricted and is valid until 30 June 2021. |
| **India** | People in India may be issued with a certificate of recovery after having COVID-19. The main use appears to be to reassure employers that a person no longer poses a risk of infection. |
| **USA** | The USA ‘documentation of recovery’ consists of a combination of: 1. Documentation of a positive viral test (RT-PCR or antigen test) and 2. A letter from a healthcare provider or public health official attesting that the person has met the criteria to end isolation.  As of 29 January 2021, international travellers arriving in the USA by air, with documented laboratory confirmation of infection with SARS-CoV-2 in the 90 days prior to travel, and who meet the criteria to end isolation, and have accredited note from a health professional, may enter the US without providing a negative test for COVID-19. |

1. <https://www.who.int/news-room/articles-detail/public-health-considerations-while-resuming-international-travel> [↑](#footnote-ref-1)
2. <https://www.who.int/news/item/15-01-2021-statement-on-the-sixth-meeting-of-the-international-health-regulations-(2005)-emergency-committee-regarding-the-coronavirus-disease-(covid-19)-pandemic> [↑](#footnote-ref-2)
3. European Centre for Disease Prevention and Control. Key aspects regarding the introduction and prioritisation of COVID-19 vaccination in the EU/EEA and the UK. 26 October 2020. ECDC: Stockholm; 2020. <https://www.ecdc.europa.eu/sites/default/files/documents/Key-aspects-regarding-introduction-and-prioritisation-of-COVID-19-vaccination.pdf> [↑](#footnote-ref-3)
4. Abu-Raddad LJ, Chemaitelly H, Ayoub HH, Al Kanaani Z, Al Khal A, Al Kuwari E, et al. Assessment of the risk of SARS-CoV-2 reinfection in an intense re-exposure setting. medRxiv. 2020:2020.08.24.20179457 [↑](#footnote-ref-4)
5. European Centre for Disease Prevention and Control. Reinfection with SARS-CoV: considerations for public health response: ECDC; 2020 © European Centre for Disease

   <https://www.ecdc.europa.eu/sites/default/files/documents/Re-infection-and-viral-shedding-threat-assessment-brief.pdf> [↑](#footnote-ref-5)
6. European Centre for Disease Prevention and Control. Guidance for discharge and ending isolation of people with COVID-19, 16 October 2020. Stockholm: ECDC; 2020. <https://www.ecdc.europa.eu/sites/default/files/documents/Guidance-for-discharge-and-ending-of-isolation-of-people-with-COVID-19.pdf> [↑](#footnote-ref-6)
7. ECDC Case definition for coronavirus disease 2019 (COVID-19), as of 3 December 2020 <https://www.ecdc.europa.eu/en/covid-19/surveillance/case-definition> [↑](#footnote-ref-7)
8. European Centre for Disease Prevention and Control. Options for the use of rapid antigen tests for COVID-19 in the EU/EEA and the UK. 19 November 2020. ECDC: Stockholm; 2020

   <https://www.ecdc.europa.eu/sites/default/files/documents/Options-use-of-rapid-antigen-tests-for-COVID-19_0.pdf> [↑](#footnote-ref-8)
9. <https://www.cdc.gov/coronavirus/2019-ncov/hcp/duration-isolation.html> [↑](#footnote-ref-9)