COVID-19: Frequently Asked Questions: asymptomatic infection, re-infection, immunity, and GP management of patients with COVID-19 test results from a laboratory other than the public laboratory service.

V2.3 **30.09.2021**

Evidence base:

These FAQs are based on HIQA evidence syntheses, public health and clinical evidence summaries which have informed the HIQA-Expert Advisory Group (EAG) available at https://www.hiqa.ie/areas-we-work/health-technology-assessment/covid-19-publications. They also include advice and decisions of the former COVID-19 EAG (Jan-Sept 2020) and the HSE Antigen Detection Testing (ADT) group.

Extension of period of presumptive immunity post infection to 9 months has been added based on the recent HIQA evidence review: 'Duration of immunity (protection from reinfection) following SARS-CoV-2 infection', published 3rd June 2021.

Note 1: this guidance is interim and is updated as the situation changes and new evidence emerges. It is also important that risk assessments and clinical judgement are employed.

Note 2: This guidance does not apply to variants of concern (VOC). See here for VOC guidance.

Version	Date	Change from previous version
V2.3	30/09/2021	• Removed reference to mandatory hotel quarantine as no long relevant
V2.2	13/09/2021	• Updated section on antigen testing
V2.1	08/09/2021	• Updated question on antigen testing
V2	02/07/2021	• Emphasis on requirement for 10 FULL days of self-isolation for COVID 19 cases. • Question and response to 'What is the advice for a person (including HCWs) who is fully vaccinated and subsequently develops symptoms consistent with COVID-19?', has been added. • Clarification that person who are asymptomatic and test positive for COVID-19 still need to self-isolate, even if fully vaccinated.
V1.9	09/06/2021	• The period of presumptive immunity post infection has been extended to 9 months. This alters advice related to management of contacts, re-testing within mass testing programmes, and testing prior to hospital admission, scheduled procedures or transfer to an RCF or LTCF. • Terminology to describe a Person Under Investigation for a variant of concern (VOC), probable and confirmed cases of VOC edited in line with VOC guidance. • Changes in line with the updated version of the Guidance on the management of weak positive (high Ct value) PCR results in the setting of testing individuals for SARS-CoV-2, including simplification to high Ct value/low viral load with removal of very high Ct value and reference to the absolute change in Ct value in the context of a fall in Ct value between samples. • Based on updated recommendations from NPHET, additional advice included that surgical face masks should be worn by those who are household contacts of confirmed COVID-19 cases. • Updated information with regard to need to self-quarantine on arrival into Ireland from abroad, in mandatory hotel quarantine (MHQ) for those travelling from or through designated states and at home for those travelling from non-designated states as well as information on exemption from MHQ (but continued need for home quarantine) for those who are fully vaccinated.
V1.8	01/04/2021	• Clarification that this guidance does not apply to variants of concern
V1.7	05.03.2021	• The period of presumptive immunity post infection has been extended to 6 months. This alters advice related to management of contacts, re-testing within mass testing programmes, and testing

		prior to hospital admission, scheduled procedures or transfer to an RCF or LTCF.
V1.6	24.02.2021	• A new section has been added to guide the interpretation of a positive antigen test in a previously infected person, or a positive antigen test in the context of a not detected PCR result.
V1.5	10.02.2021	• Change in timing of testing of close contacts to day 0 and day 10, with ending of period of restricted movements if "not detected" result from day 10 test and remain asymptomatic
V1.4	23/12/2020	• Question and response to "Do recovered cases that travel from overseas still have to restrict their movements for 14 days after they enter Ireland?" has been updated
V1.3	18/12/2020	• Includes advice for GPs on how to respond to a patient presenting with COVID-19 test results from a laboratory other than a public service laboratory
V1.2	4/12/2020	• Question and response to "Do recovered cases that travel from overseas still have to restrict their movements for 14 days after they enter Ireland?" removed temporarily, as it needs to be amended in light of Gov.ie advice on travel
V.1.1	30.11.2020	• What is the period of infectiousness paragraph changed to what is the period of isolation. Error in duration of isolation for asymptomatic cases corrected

This document is intended for GPs, clinicians, public health doctors and healthcare workers, and aims to provide answers to common questions relating to duration of immunity, re-infection, indications for testing, interpretation of certain test results, and other restrictions. Please note, when referring to testing, this guidance applies to testing using the real-time reverse transcription polymerase chain reaction (rRT-PCR) test, unless otherwise stated.

Asymptomatic and pre-symptomatic cases

What is the difference between a pre-symptomatic case of COVID-19, and an asymptomatic case of COVID-19?

A pre-symptomatic case of COVID-19 is a person who has no symptoms at the time of testing but who subsequently develops symptoms consistent with COVID-19. An asymptomatic case is a person who tests positive for SARS-CoV-2 and never develops symptoms of COVID-19.

At times, people are classified incorrectly as asymptomatic or pre-symptomatic when they may in fact have had atypical symptoms such as fatigue or muscle pains which had not been identified at the initial consultation. In addition, older patients may present with lethargy, confusion, loss of appetite, or unexplained change in baseline condition, rather than with typical symptoms.

From what date are asymptomatic cases classified as cases?

Asymptomatic cases are defined as cases from the date when the test was taken. Their management in terms of self-isolation and contact tracing is the same as that for symptomatic cases.

When does contact tracing begin for an asymptomatic case?

For the purpose of contact tracing of asymptomatic cases, the infectious period starts 24 hours before the date of the SARS-CoV-2 test (https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/guidance/contacttracingguidance/

What restrictions apply if an asymptomatic person tests positive and then develops symptoms within the next 10 days?

The person is now considered to have been pre-symptomatic at the time of testing. The person should self-isolate from the date of onset of symptoms: the duration of self-isolation is 10 full days for those in the community, and 14 full days for long term care facility (LTCF) and residential facility (RF) residents or hospitalised cases; for all cases the last 5 days of self-isolation must be fever-free.

What is the period of isolation?

Isolation is required for 10 full days from onset of symptoms for a community case, the last 5 of which must be fever-free, and 14 full days for a hospitalised case or a case in a resident of a residential facility (RF) or long-term care facility (LTCF), the last 5 of which must be fever-free. If the case is asymptomatic, isolation is required for 10 full days from the date of the SARS-CoV-2 test.

People who tested positive for SARS-CoV-2 in the past may continue to test 'positive' for SARS-CoV-2 for many weeks or months after initially testing positive. This does not mean that they are infectious. This can be considered to be persistent detection of non-viable virus material rather than re-infection, and no other actions are generally required.

Recovered cases: immunity and testing

If a person has confirmed SARS-CoV-2 infection, subsequently recovers, and is later identified as a contact of a case, could this person be considered immune and therefore not at risk of re-infection?

This depends on the duration of the time between the original confirmed infection and the current exposure as a contact, and whether or not they are currently symptomatic.

People are considered to have immunity for 9 months after their initial positive SARS-CoV-2 PCR test. A person who is now an **asymptomatic contact** of a case and has had a positive test result within the previous 9 months does not need to restrict their movements and does not require testing. However, given uncertainty around the development of protective immunity, all contacts in these situations should self-monitor for onset of symptoms. If they develop symptoms, they should self-isolate and be tested for SARS-CoV-2 and other respiratory viruses.

Please note: this advice does not apply if the exposure to COVID-19 is to a Person Under Investigation for a variant of concern (VOC) or to a probable or confirmed case of VOC – see guidance for VOCs.

If the previous positive test result in an asymptomatic contact was more than 9 months ago, then they should be referred for day 0 (Test 1) and day 10 (Test 2) testing. They must restrict

their movements pending the outcome of testing. They may end the period of restricted movements on receipt of a "not detected" test result from the Day 10 test, so long as they remain asymptomatic. In the absence of a Day 10 test, they must restrict their movements for 14 days.

What is the advice for someone who had a previous infection with COVID-19, who has fully recovered and subsequently develops symptoms consistent with COVID-19?

This should be managed as a contagious viral infection (SARS-CoV-2 or another respiratory virus infection) with appropriate IPC precautions. It is important to:

- Establish the diagnosis by doing an extensive viral infection screen (a respiratory virus panel)
- If a positive SARS-CoV-2 result is obtained, seek virology/microbiology input on the interpretation of all results, including SARS-CoV-2 cycle threshold (Ct) values, to determine if this is a new infection or detection of a small amount of persistent, non-viable virus material. Please see here for further information on interpretation of weak positive (high Ct value) PCR results. If Ct values/viral loads are not available for any reason, the default is to assume a positive result represents a significant result and that the person is infectious.

Note: Tests have limitations and need to be considered in the context of the clinical picture. If an alternative diagnosis does not explain the clinical presentation, suspected cases of re-infection should be reported to public health.

If re-infection cannot be excluded, then it cannot be assumed that the case is not infectious. Current contact tracing guidelines will apply.

What is the advice for those (including healthcare workers) with a history of COVID-19 infection who have recovered completely and remain well but are tested again e.g. during a mass testing programme, and who have positive SARS-CoV-2 test results?

A person with a previous positive SARS-CoV-2 test who is currently clinically well should not be re-tested for 9 months following onset of illness. They should not be included in serial

testing programmes in the 9 months following onset of illness. After 9 months they can re-enter serial testing programmes.

If a person with a previous positive test for SARS-CoV-2, is currently clinically well, is tested within 9 months, and receives a weak positive test result with a high Ct value/low viral load, this can be considered to be persistent detection of non-viable virus material rather than re-infection, and no other actions are required.

If they develop symptoms, this should trigger further review including testing for SARS-CoV-2 and other respiratory viruses.

If a person with a previous positive test for SARS-CoV-2, is currently clinically well, is tested within 9 months, and receives a positive test result with a low Ct value/ high viral load, the default is to regard the person as a new infectious case. However, the interpretation depends very much on the time interval since the previous diagnosis and Ct value at time of diagnosis. In such scenarios, interpretation of the Ct values of the PCR test for SARS-CoV-2 should be performed in conjunction with a microbiologist or virologist, as re-infection may need to be considered.

Please see here for further information on interpretation of weak positive (high Ct value) PCR results. If Ct values/viral loads are not available for any reason, the default is to assume a positive result represents a significant result and that the person is infectious.

What is the advice for those with a history of COVID-19 infection who have recovered completely and remain well but are tested again in advance of hospital admission, scheduled procedures and transfer to Residential Facilities (RF) or Long-Term Care Facilities (LTCF) and who have positive SARS-CoV-2 test results?

A person with a previous positive SARS-CoV-2 test who is currently clinically well should not be re-tested for 9 months following onset of illness prior to hospital admission, scheduled procedures or transfer to the RF or LTCF.

If a person with a previous positive test for SARS-CoV-2, is currently clinically well, is tested within 9 months, and receives a weak positive test result with a high Ct value/ low viral load, this can be considered to be persistent detection of non-viable virus material rather than re-infection, and no other actions are required.

If they develop symptoms, this should trigger further review including testing for SARS-CoV-2 and other respiratory viruses.

If a person with a previous positive test for SARS-CoV-2, is currently clinically well, is tested within 9 months, and receives a positive test result with a low Ct value/ high viral load the default is to regard the person as a new infectious case. However, the interpretation depends very much on the time interval since the previous diagnosis and Ct value at time of diagnosis. In such scenarios, interpretation of the Ct values of the PCR test for SARS-CoV-2 should be performed in conjunction with a microbiologist or virologist, as re-infection may need to be considered.

If an asymptomatic person with a history of a positive test more than 9 months ago has a positive test, then interpretation of the Ct values of the PCR test for SARS-CoV-2 should be performed in conjunction with a microbiologist or virologist, as re-infection may need to be considered. Please see here for further information on interpretation of weak positive (high Ct value) PCR results.

If Ct values/viral loads are not available for any reason, the default is to assume a positive result represents a significant result and that the person is infectious.

Antigen test results

How should a positive antigen test result, obtained using a test that has been validated as part of the HSE testing programme, be interpreted in an asymptomatic person who was previously positive (either by antigen or PCR)?

Re-testing of an asymptomatic person with a history of confirmed infection (by antigen or PCR) should not be undertaken within 9 months.

Repeat antigen testing should not be performed during the 2 weeks after a previous positive test result (by antigen or PCR). If this is performed and is positive this can be considered part of the same infection. The person should normally continue follow the guidance on self-isolation and other public health measures appropriate to their initial diagnosis.

A repeat positive antigen test more than 2 weeks and within 9 months following a previously positive test result (by antigen or PCR) is unlikely to be attributable to an uncomplicated and

resolved initial infection. It is likely to represent presence of the virus either because of persistence of primary infection or new infection. Therefore the person should also be referred to their doctor/public health for RNA testing and sequencing and may require discussion with microbiology or infectious disease. The person should self-isolate, get a confirmatory PCR test and follow other public health measures as for a new infection and contact tracing should be carried out.

Note a person with symptoms and a positive antigen test (suggesting continuing or repeat infection) in the weeks immediately following a previous infection should be advised to see their doctor for assessment of any medication or conditions that may impair the working of their immune system.

What is the advice where a person tests positive by antigen test and virus is not detected by PCR test?

If the antigen and PCR tests were taken at the same time, the PCR result should generally be taken as the correct result. However, clinical governance and interpretation of these results rest with the clinician responsible for overseeing the antigen testing, who may wish to organise repeat PCR testing. In cases of uncertainty, the default is to manage the person as a positive case until testing and assessment have been completed. For other situations, review on a case-by-case basis is required, which will include the circumstances in which the test was undertaken, such as in a family setting or in a complex workplace setting. Consultation with the Department of Public Health will be needed, and they will provide further advice on this. It is noted that, given its high specificity, a positive antigen test using a test that has been validated as part of the HSE testing programme is generally an indication that this is an infectious case. If the antigen test was carried out outside the public health system, then it is advised to repeat a PCR test in the public system and follow advice as set out here.

Movement Restrictions and Quarantine

What restrictions apply for household contacts where a case cannot self-isolate from their household?

For adult and child cases for whom it is not feasible to self-isolate (e.g. children under 13 years old or adults with care needs), all household contacts with ongoing unprotected exposure to

the case should restrict their movements for 17 days from the onset of symptoms in the case or from the date of the test if the case was asymptomatic.

What happens if members of the same household become positive over time?

The period of restricted movements (up to receipt of a "not detected" test result from a Day 10 test, or 14 days in the absence of a Day 10 test) from the time of last contact with a positive case applies to the household contacts of each person that becomes positive. Hygiene measures within the household should be emphasised. If possible, household contacts of a case should consider physically distancing from each other in order to reduce their risk of exposure, in case one of them becomes infectious. In addition, it is now also recommended that surgical face masks be worn by those who are household contacts of confirmed COVID-19 cases.

When an index case (the first positive case) and any other household members who become positive have completed their 10-day self-isolation period they are then exempt for 9 months (from the date of onset of symptoms) from having to restrict their movements, if any other household contacts become positive subsequently.

Do persons that travel from overseas have to quarantine after they enter Ireland?

Please see gov.ie for latest advice relating to travel.

Do recovered cases and fully vaccinated persons still have to quarantine after they travel from overseas?

Please see gov.ie for latest advice relating to travel.

Residential Facilities (RF), Long Term Care Facilities (LTCF) and Hospitalised Cases

What is the general advice regarding confirmatory testing and discharge plans for a hospitalised patient who has recovered from COVID-19?

For those individuals with COVID-19 who have made a complete clinical recovery from their illness, are at least 14 days from symptom onset, and who have had no fever for 5 days, there

is no requirement for repeat testing, to demonstrate that RNA is not detected, before discharge from hospital**.**

When can immunocompromised individuals with COVID-19 be moved out of isolation in a LTCF, RF or a hospital?

Immunocompromised individuals who are in hospital, in a LTCF, or a RF can be moved out of isolation 14 days from onset of symptoms (or from date of swab if asymptomatic), provided they have made a complete clinical recovery, and have had no fever for 5 days*

**There are certain situations where testing to ensure viral clearance after 14 days may be useful, and clinical discretion may be used to determine when a "SARS CoV-2 RNA Not Detected" result for a particular patient may be helpful. For example, in patients with subtle or atypical symptoms (in particular older patients), those who might not mount a fever (immunocompromised patients), or those who might not be able to communicate effectively (patients with dementia), repeat testing may be of use. If repeat testing is performed, in general, high or increasing Ct[1] values in the absence of clinical symptoms, are unlikely to indicate infectiousness.*

Advice for Healthcare Workers (HCW)

Note: there is no requirement for pre-employment testing of well healthcare workers for SARS-CoV-2.

What is the advice for HCWs with a history of COVID-19 infection who have finished self-isolation prior to the commencement of staff screening in residential care facilities?

HCWs who test positive for the first time for SARS-CoV-2 must self-isolate for 10 full days from onset of symptoms if symptomatic and from the date the swab was taken if asymptomatic. They should not be retested for SARS-CoV-2 as part of screening within 9 months of the onset of illness.

However, at any stage if the HCW develops symptoms this should trigger further review including testing for SARS-CoV-2 and other respiratory viruses. Interpretation of the Ct values

[1] Lower cycle threshold (ct) values indicate higher viral loads

of the PCR test for SARS-CoV-2 should be performed in conjunction with a microbiologist or virologist, to assist in making a judgement on the likelihood of this being a re-infection.

What restrictions apply if an asymptomatic or pre-symptomatic healthcare worker tests positive for SARS-CoV-2 for the first time?

The asymptomatic HCW must remain off work for 10 full days from the date of the test, even if fully vaccinated. The infectious period for contact tracing starts 24 hours before the date of the test.

If a HCW is asymptomatic and tests positive but then subsequently gives a history of previous symptoms consistent with COVID-19:

1. If they report symptoms consistent with COVID-19 within 14 days prior to the test they must remain off work and self-isolate for 10 full days from the date symptoms commenced.

2. If they report symptoms consistent with COVID-19 greater than 14 days prior to the test they must remain off work and self-isolate for 10 full days from the date of the test.

What is the advice for a person (including HCWs) who is fully vaccinated and subsequently develops symptoms consistent with COVID-19?

COVID-19 vaccines are not 100% effective. Anyone who develops symptoms consistent with COVID-19 needs to self-isolate immediately and contact their GP to organise a COVID-19 test. If the test result is positive, the person needs to continue to self-isolate for 10 full days from the onset of symptoms, the last 5 days of which must be fever-free.

What is the advice for a healthcare worker returning to work in a Residential Facility (RF) or Long Term Care Facility (LTCF) who was hospitalised for a condition not related to COVID-19?

If this healthcare worker was not a close contact of any case of COVID-19 in hospital or elsewhere, then no restrictions apply. They can return to work in the RF or LTCF and no testing is required.

What is the advice to a GP when a patient presents with a report of a test result for COVID-19 from a laboratory other than a public service laboratory

General Practitioners are not in a position to assess the quality of the laboratory service provided by a service provider. The following approach is recommended for a GP dealing with the situation when a patient presents with a COVID-19 test result from a laboratory other than a public service laboratory.

The GP should request the patient to provide a record of the result either as a printed report, email or text message and make a note of this result, the date of the test and the name of the service provider in the patient's record.

If the test was an antibody test, the patient should be advised that no particular measures are recommended based on this result.

If the test was a test for virus (sample taken from the nose, mouth or throat), the GP should:

- advise the person to have a repeat test performed through a public service provider.
- advise the patient to follow guidance on self-isolation as for a positive case.
- advise the patient that all members of the person's household should follow guidance for household contacts of a confirmed positive case.
- Notify the case to public health if it meets the case definition.

If the person reports a negative or not detected test result, the GP should also request a record of the result. If the patient has symptoms of COVID-19, the GP should:

- advise the person to have a repeat test performed through a public service provider.
- advise the patient to follow guidance on self-isolation as for a positive case.
- advise the patient that all members of the person's household should follow guidance for household contacts of a confirmed positive case.
- Notify the case to public health if it meets the case definition.

For more details, please see Primary Care Guidance - Health Protection Surveillance Centre