

1. Are all patients who test positive for COVID considered infectious?

- A positive test may represent two possible scenarios:
 1. CURRENT infection that is symptomatic, asymptomatic or pre-symptomatic (e.g. the individual develops symptoms afterwards). In this scenario, a patient would be considered infectious and would require additional precautions for a minimum of 10 days following symptom onset, or a positive test result if symptom onset is unclear
 2. RESOLVED infection (with or without symptoms), these patients can continue to test positive for weeks to months after infection. Once it is determined that a patient's positive result is due to a prior infection, additional precautions will not be required

2. How can you tell if a positive test is because of a Resolved COVID or Current infection?

- Any patient with a history of a COVID infection (e.g. positive test result available in clinical connect) confirms previous infection. Reinfection is very unlikely, especially in those with infection in the past 90 days.
- Without a known history of COVID infection or exposures, IPAC may be able to review their current NPS results by looking at the Cycle Threshold (Ct) value and determine the likelihood of Resolved versus Current infection. A repeat swab is ordered for the following day to see if the Ct value is changing

3. What does a Cycle Threshold (Ct) Value Represent?

- COVID tests use PCR (polymerase chain reaction)
- This test requires multiple cycles to amplify and detect viral genes in the specimen
- The number of cycles required to detect the gene is expressed as a Ct value.
- A repeat test the next day showing:
 - a lower Ct value, indicates Current infection and increasing viral load
 - an unchanged or increasing Ct value, indicates Resolved infection
- Ct values are accessible by IPAC or Occupational Health on a case by case basis, during daytime hours

5. What is COVID serology?

- COVID serology reflects antibodies to COVID (may be seen after a resolved infection or vaccination)
- Serology may be requested on a case by case basis and requires approval by Microbiology on call

6. When is a COVID positive patient removed from additional precautions?

- Removal is done in consultation with IPAC during daytime hours <https://www.hamiltonhealthsciences.ca/wp-content/uploads/2020/12/Discontinuing-Precautions-for-COVID-Positive-Inpatients-Dec-22.pdf>
- Assessment to discontinue precautions (e.g. patient is no longer infectious to others) for:
 - MILD illness commences on day 10
 - Severe illness (e.g. ICU, PICU, NICU), or immunocompromised patients commences on day 20
- Most patients should not be tested for clearance as PCR tests can remain positive for weeks to months. Test based clearance should only be done in consultation with IPAC and MD on call during daytime hours
- There is NO indication for retesting an asymptomatic AND unexposed COVID patient who has been cleared by IPAC for 90 days following their initial positive COVID test.

7. How is a Resolved COVID infection defined and what is their COVID Risk Status?

- Resolved COVID infection is defined as:
 - Having had symptomatic or asymptomatic COVID infection in the last 90 days
 - no new exposures
 - Afebrile without the use of antipyretics and improving symptomatology
 - Ongoing supplemental oxygen is not a contraindication, provided oxygen needs are stable, declining or at baseline
 - Post infections symptoms such as persisting cough or anosmia do not require ongoing isolation
- Patients with Resolved COVID infections are deemed Negligible COVID Risk Status and do not require surveillance testing (e.g. surgery requiring an AGMP, chemotherapy/immunosuppression, transferred to or between healthcare facilities (e.g. to Rehab, Alternate Health Facility, Long Term Care and between HHS sites)
- For brief AGMP (e.g. surgery)- no testing and a medical mask and eye protection is worn
- For ongoing AGMP (e.g. chronic CPAP)- no testing, treatment in progress signage (medical mask and eye protection is worn)

Reference: **Interpreting NPS Positive Results in Patients with possible PRIOR COVID infection that may no longer be infectious**

Interpreting NPS Positive Results in Patients with possible Resolved COVID infection that may no longer be infectious

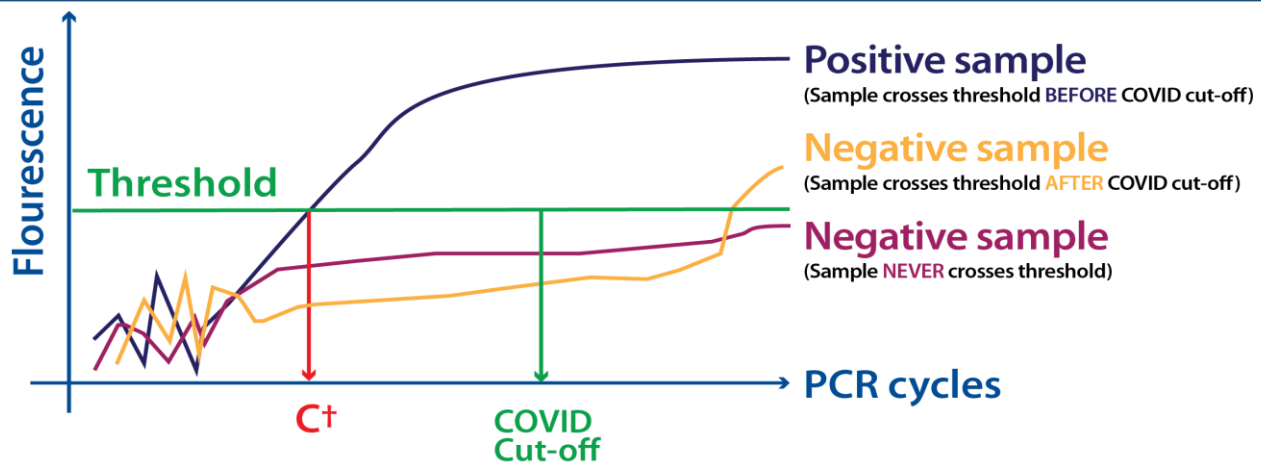
A positive PCR test indicates viral RNA present, but not necessarily infectious virus.

- The contagious period for mild COVID infections in most patients is 10 days
- Immunocompromised & severe infections may be contagious for longer, 20 days per HHS policy

NPS tests have additional information (e.g. Ct) that guides understanding of contagiousness/ additional precautions

What does the Ct value (“Cycle Threshold”) represent?

- COVID tests use PCR (polymerase chain reaction)
- This test requires multiple cycles to amplify and detect viral genes in the specimen
- The number of cycles required to detect the gene is expressed as a Ct value.
- A repeat test the next day showing:
 - a significantly lower Ct value, indicates contagious infection and increasing viral load
 - an increasing or stable Ct value, indicates RESOLVED infection that is no longer contagious
- A Ct value is not provided with each positive result but can be accessed by IPAC during daytime hours on a case-by-case basis if needed



Patient tests positive for COVID

- **Inpatients** placed in additional precautions
- **Outpatients** advised to isolate at home per PH or ordering MD team

Ask patient if history of COVID infection in the past 90days?

If known RESOLVED infection (e.g. review NPS results in Clinical Connect), asymptomatic and no new exposures patient should not have been tested and positive result was to be expected.

No further action required if asymptomatic and no new exposures.

If no previous COVID infection in past 90 days

- 1) Call IPAC during daytime hours to review Ct result
- 2) If Ct value is high (correlated with low/nonviable viral load) → requires repeat NPS in 24hours to confirm RESOLVED infection (not contagious)

Repeat NPS result shows
significantly decreasing Ct

Active infection
continue in additional precautions

Repeat NPS result shows
increasing or stable Ct

RESOLVED or
LATER STAGES of infection
Consult IPAC during daytime hours to
discontinue precautions