

# Post Covid-19: Outpatient Assessment

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## Prior to Scheduling



(/File:COVID-19-schedule.jpeg)

A few questions may be important to consider prior to scheduling a new patient.

Was the patient hospitalized for COVID-19? If no, when was the onset of symptoms? When was the last day of symptoms? If patient not sure of last day of symptoms, when was the last day of the fever?

If the patient was hospitalized, when was the patient discharged? Was the patient admitted to an intensive care unit? How many days was the patient in the intensive care unit? Were diagnostic tests done to determine if the patient was COVID-19 negative?

## Rationale

### Viral Load

The goal of questioning is to estimate the patient's current viral load. It has been documented that an asymptomatic patient has the same viral load as a symptomatic patient.<sup>[1]</sup> Prior to treating a patient with post COVID-19, the physical therapist may need to apply the responses about the patient's timing of COVID-19 in order to be adequately prepared to assist the patient. The science around learning more about reinfection and viral loads is quite fluid. At the moment there are no definitive answers.

Currently, there are no guidelines on probability of reinfection. It seems the best evidence we currently have focuses on viral loads. The highest level of viral shedding seems to occur when asymptomatic or with mild symptoms. Viral RNA can be found in oral swabs, anal swabs and blood of individuals who are infected with COVID-19.<sup>[2]</sup> A patient discharged with a negative oral swab may continue to be shedding the virus. The change in shedding may change from predominantly oral to fecal.<sup>[2]</sup> The question continues to remain as to whether the viral load is adequate for reinfection.

For 30% of the hospitalized patients, positive oropharyngeal saliva samples occurred 20 days after onset.<sup>[3]</sup> In another study using reverse transcription polymerase chain reaction (RT-PCR), positive tests were also found. Patients who had a high severity presentation (respiratory distress, resting oxygen saturation <93% or other significant complications) continued to test positive for 10 or more days post onset.<sup>[4]</sup> For 90% of patients who were viewed as having mild cases, negative RT-PCR results occurred by day 10 post onset.<sup>[4]</sup>

A person with COVID-19 is infectious from about 2.3 days before symptoms until about 7 or 8 days after symptoms are noted.<sup>[5]</sup> Viral shedding may occur as long as 37 days after hospital admission.<sup>[6]</sup>

In the United States of America, the Centers for Disease Control and Prevention outlines guidance when no testing has been performed. It is currently believed that if the patient has not had a fever for the last 3 days (and not taking any fever-relieving medications), no longer has any respiratory symptoms (shortness of breath or cough) and it has been at least 7 days since the onset of symptoms, it is no longer recommended to take precautions to limit the spread of the illness.<sup>[7]</sup>

It seems it may be prudent to determine the risk of transmission based on whether the patient had mild symptoms (with or without hospitalization) or was hospitalized. If hospitalized and viewed as being severe, the patient may continue to have viral RNA even 20 days after onset of symptoms. What is not known at this time is whether the viral load is high enough to warrant precautions.

## Preparing for Patient Assessment

Prior to scheduling the patient, knowing a little bit about the patient's COVID-19 experience will help you with your thought processes prior to examination. The pre-scheduling questions help anticipate the intensity of the patient's potential needs.

## Special Questions

In order to prepare for the subjective patient intake, a few additional questions will assist with determining what measurement and screening tools will be helpful for the individual patient.

- Was the patient on a ventilator?
- Was the patient diagnosed with pneumonia?
- Is the patient noting changes in sleep habits?
- Is the patient noting cognitive changes?

## Subjective Patient Intake



(/File:COVID-19\_subjective\_intake.jpg)

COVID-19 has increased our awareness of communicable diseases (/Communicable\_Diseases). Based on the lack of definitive evidence surrounding reinfection, outpatient processes may change. Much of the subjective information required to assess patients can be attained electronically. If organizations have secure systems in place and if the patient has access to email or the internet, a physical therapist may employ an electronic method to obtain subjective information.<sup>[8]</sup>

A review of systems will provide information<sup>[9]</sup> on the extent of the lasting effects from COVID-19. Although a patient may have been hospitalized and required a mechanical ventilator, the patient may be presenting for services for more than just lung problems.<sup>[10]</sup>

The patient may present with generalized functional limitations. Patient reported outcome measures that may be used to measure and monitor functional status include Patient-Reported Outcomes Measurement Information System (PROMIS) Physical Function (PF)<sup>[11]</sup> or the WHOQOL-BREF (/WHOQOL-BREF) or any other generalized measurement tool that assesses physical function or multiple domains.

The patient may have sleep disturbances. The PROMIS bank version 1.0 - Sleep Disturbances may help assess quality of sleep.<sup>[12]</sup>

The patient may present with a mood disorder such as depression. The Patient Health Questionnaire-9 (PHQ-9) (/Depression) may be used to screen for depression.

If it seems the patient may have cognitive deficits, the Saint Louis University Mental Status Exam may help highlight regions of deficits.<sup>[13]</sup>

If the patient was hospitalized and ventilated, this patient may also present with post traumatic stress disorder (/Post-traumatic\_Stress\_Disorder). One quick screening tool available is the Primary Care PTSD for DSM-5 (PC-PTSD-5).<sup>[14]</sup>

## Investigations

- Laboratory results
- Radiograph results
- Pulmonary function test results

## Objective: Systemic Focus

If patient was hospitalized and treated with a ventilator, the patient may present with intensive care unit acquired weakness (/ICU\_Acquired\_Weakness). Patient may have been diagnosed with hospital acquired pneumonia (/Hospital\_Acquired\_Pneumonia). The patient may present with neurological deficits.<sup>[15]</sup>

## Vitals

- Blood pressure



- Pulse
- Respiratory rate
- Oxygen saturation

(/File:Covid\_icu.jpg)

## Observation

- Posture
- Gait (use of assistive devices) and quality of gait
- Unsteadiness (quick grasp of balance deficits)
- Facial expressions of discomfort
- Ease of changing positions
- Ease of talking
- Note any skin ulcers from positioning if patient had been hospitalized

## Functional Tests

- 30 Second Timed Stands Test (/30\_Seconds\_Sit\_To\_Stand\_Test) To compare results with normative data, published literature by Rikli and Jones provides cut off scores for older adults.<sup>[16]</sup>
- Timed Up and Go Test (/Timed\_Up\_and\_Go\_Test\_(TUG))
- 2-Minute Step Test of Exercise Capacity<sup>[17]</sup>
- 10 Metre Walk Test (/10\_Metre\_Walk\_Test)
- 4-item Dynamic Gait Index (/4-item\_Dynamic\_Gait\_Index)
- The Centers for Disease Control and Prevention: Stopping Elderly Accidents, Death and Injuries<sup>[18]</sup>

## Palpation

- This would be dependent upon any reported pain experience. Patient may present with neck or shoulder or low back complaints due to positioning if the patient was hospitalized.

## Neurologic Assessment (/Neurological\_Assessment)

- Patient may report sensory deficits. Can assess via sharp/dull, two-point discrimination, vibration sense, and/or joint position sense.
- Assess upper extremity gross strength testing
- Assess lower extremity gross strength testing
- Assess tone: flaccidity, spasticity, rigidity
- Assess deep tendon reflexes
- Assess coordination
- Assess ataxia (/Ataxia)

## Strength Testing

- Grip strength
- Also keep in mind any ongoing pain experience and assess the appropriate localized/regional structures.

## Movement Testing

- Manual Assessment of Respiratory Motion (/Manual\_Assessment\_of\_Respiratory\_Motion\_(MARM))
- Also keep in mind any ongoing pain experience and assess the appropriate localized/regional structures.

## Special Tests

- If the patient presents with substantial respiratory changes and deficits, a variety of respiratory system assessment and examination (/Category:Respiratory\_System\_-\_Assessment\_and\_Examination) options may be chosen for each individual patient.
- Depending on the length of hospitalization and immobility, the patient may be at risk for deep vein thrombosis (/Deep\_Vein\_Thrombosis). Well's Criteria will help determine the probability of deep vein thrombosis.

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