If you have a patient who has been hospitalized because of COVID-19, there’s a good chance they will still have respiratory problems or physical impairments even four months after being discharged, according to new research published in JAMA Network Open.

On top of that, physicians need to be ready to help these patients address post-traumatic stress symptoms.

“Unfortunately, COVID-19 is not only an acute illness. Physical sequelae are common and often paralleled by psychological consequences. In case of persistent symptoms, particularly respiratory symptoms, functional investigations are required,” said the study’s lead author, internist Mattia Bellan, MD, PhD, who is at the Università del Piemonte Orientale in Novara, Italy.

Dr. Bellan and his colleagues in Northern Italy studied 238 patients hospitalized with COVID-19 and found that four months after patients left the hospital:

- 51.6% had diffusing lung capacity for carbon monoxide that was reduced to less than 80%, based on pulmonary function tests (PFTs).
- 15.5% had diffusing lung capacity for carbon monoxide that was reduced to less than 60%, based on PFTs.
- 22.3% had limited mobility based on short physical performance battery (SPPB) assessments that included evaluating balance in a standing position, walking speed for four meters and standing up from a chair with five repetitions.
- 17.2% had clinically relevant post-traumatic stress symptoms.

Patients who scored what you would expect a healthy individual to score on the SPPB test then underwent a two-minute walk test to look for subtler impairment. The study showed 31.5% of those patients had some level of impairment, raising the total share of patients experiencing some degree of...
functional impairment to 53.8%.

Dr. Bellan said the results matched his expectations going into the study.

“Whoever worked with COVID-19 patients was worried about the persistence of functional damage since patients admitted to hospital often show very severe and diffuse lung damage,” he said. “Moreover, many patients contact us after hospital discharge to complain of persistent symptoms.”

Fear of “psychological pandemic”

Dr. Bellan said physicians also need to pay attention to COVID-19 patients’ mental health after they have been hospitalized.

“The psychological consequences are common, as a result of the fear of death which patients with severe clinical picture experienced during the acute phase—the social stigma, the isolation belonging to positivity for SARS-CoV-2, and the persistence of symptoms affecting quality of life,” he said. “All these problems are further enhanced by the limitations to our social life and economic concerns that all of us are experiencing. I am particularly worried that after this viral pandemic a psychological pandemic will hit our society.”

To determine whether patients were experiencing post-traumatic stress symptoms, researchers administered the impact of event scale-revised (IES-R) test. About 57% of patients who were tested were within reference ranges, while 25.6% of patients had mild symptoms, 11.3% had moderate symptoms and 5.9% had severe symptoms, says the study, “Respiratory and Psychophysical Sequelae Among Patients With COVID-19 Four Months After Hospital Discharge.”

Other findings

Interestingly, researchers noted, that age was not associated with reduced diffusing lung capacity for carbon monoxide or impaired motor function.

“We speculate that older people may have a higher baseline comorbidity burden, which was detrimentally associated with their survival probability during acute illness,” authors wrote, “but in survivors, the residual damage was not worse than in younger people. Essentially, this finding confirms that older individuals who survive COVID-19 may not be less able than their younger counterparts to revert to their previous state of health, with no accrual of morbidity.”

Dr. Bellan said they plan to evaluate patients again when they reach the one-year anniversary of their
hospital discharge. “Whether these sequelae will persist, improve or even worsen along time needs to be clarified,” he said.

Stay up to speed on the AMA’s COVID-19 advocacy efforts and track the fast-moving pandemic with the AMA’s COVID-19 resource center, which offers a library of the most up-to-date resources from JAMA Network™, the Centers for Disease Control and Prevention and the World Health Organization