

# Physical Recovery in Critically Ill Patients Can Predict Remission of General Anxiety and PTSD Symptoms

Findings may help clinicians be better prepared to care for critical illness survivors, potentially leading to a better quality of recovery

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## FAST FACTS:

- Researchers studying patients with acute respiratory distress syndrome found that with better physical function — basic and complex activities considered essential for maintaining independence — the patients experience remission of general anxiety and post-traumatic stress disorder (PTSD) symptoms.
- The research team previously reported that acute respiratory distress syndrome survivors have long-lasting mental and physical health problems — which together are part of post-intensive care syndrome, because they are common among patients who experience a stay in an intensive care unit.
- Persistent mental illness makes patient recovery from critical illnesses, such as acute respiratory distress syndrome, more difficult and more costly, as it takes more time for patients to rejoin society.
- Knowledge gained through this study could potentially lead to a better quality of recovery.

In a two-year longitudinal study involving 13 intensive care units in four U.S. hospitals, researchers found that better physical functioning — basic and complex activities considered essential for maintaining independence — is associated with remission of general anxiety and post-traumatic stress disorder (PTSD) symptoms. These findings may help clinicians be better prepared for caring for the growing number of survivors of critical illness, potentially leading to a better quality of recovery for patients.

The study will be published in the January 2015 issue of *Critical Care Medicine*.

The lead author of the study, [O. Joseph Bienvenu, M.D., Ph.D.](#), director of the Psychiatry Consultation-Liaison Service at Johns Hopkins Medicine, examined patients with an archetypal critical illness called acute respiratory distress syndrome. An estimated 200,000 people in the United States suffer from acute respiratory distress syndrome each year. “The mortality used to be around 70 percent,” says Bienvenu. “Today, more than half survive.”

The prevention and treatment of chronic mental illnesses in critically ill patients are growing concerns for health care practitioners, particularly as “more and more critically ill patients are surviving,” says Bienvenu.

There were 520 patients originally enrolled in the study, and a little over one-half survived to the first follow-up at 3 months. This resulted in 186 consenting survivors — adults of all ages, who completed at least one Hospital Anxiety and Depression Scale (HADS) and one Impact of Event Scale-Revised (ISER) assessment in the two-year period of the study.

From the assessments, the researchers found that the majority of acute respiratory distress syndrome survivors in the study had clinically significant symptoms of general anxiety, PTSD or

depression. But, just as other studies are finding, says Bienvenu, “If patients had symptoms of one condition, they were more likely to have symptoms of another.” The results suggest that clinicians should check patients for a full range of mental and physical phenomena — together now being called post-intensive care syndrome — that frequently occur in survivors of critical illness.

The researchers also measured whether study participants’ physical function changed over time by assessing the activities of daily living they did for themselves, such as managing finances, shopping and home maintenance.

“The path to recovery — physically — may be more difficult if you’re having mental health problems,” says [Dale M. Needham, M.D., Ph.D.](#), medical director of the Critical Care Physical Medicine and Rehabilitation Program at Johns Hopkins and senior author of the study. “Similarly,” Needham adds, “the mental health recovery may be more difficult if you have physical problems.”

While many study participants saw psychologists and counselors and/or took psychiatric medications, the researchers found that the best predictor for remission from general anxiety and PTSD symptoms was physical improvement. That finding suggests that if patients get active and are able to recover their physical function, their mental health may improve, too.

“Getting people active allows them to return to activities that they were doing before critical illness, like work and social interactions,” says Bienvenu. Whether the study participants had symptoms of general anxiety, PTSD, depression or some combination of the three, “those symptoms didn’t go away on their own,” he says. Such behavioral activation therapy, as it is known, is a standard for treating patients with depression, and Bienvenu and Needham are in the planning stages of a new study to examine the effects of behavioral activation therapy for patients with post-critical illness depression.

Additional Johns Hopkins researchers include Elizabeth Colantuoni, Pedro A. Mendez-Tellez, Cheryl R. Dennison-Himmelfarb and Peter J. Pronovost, as well as Carl Shanholtz from the University of Maryland School of Medicine. Funding for the study came from the National Institutes of Health and the Johns Hopkins Institute for Clinical and Translational Research.

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