Older adults are more likely than younger adults to develop critical illnesses that require hospitalization and intensive care. These illnesses include severe pneumonia and other serious respiratory conditions, congestive heart failure, heart attacks, and sepsis (a life-threatening complication from bacterial infections).

Until now, the role of strength before hospitalization has not been well-studied. Strength's effects on how well older adults do following an intensive care unit (ICU) stay also have not been well-studied. To fill this knowledge gap, a research team created a study. The study was to learn how older adults' strength before they became ill affected how long they stayed in the hospital after being admitted to an ICU. They also learned whether or not the older adults died while in the hospital or within a year after discharge. Their study was published in the Journal of the American Geriatrics Society.

The researchers enrolled 575 people who had been admitted to the ICU one or more times. Participants were between the ages of 70 and 79 and lived in Memphis, TN, and Pittsburgh, PA, between March 1997 and July 1998. The participants had taken strength tests within two years before their admission to the ICU. Tests included walking 20 meters (about 64 feet), completing repeated chair stands, and assessing balance and grip strength.
The researchers learned that:

- Participants with the slowest walk speeds had an 80 percent higher risk of dying within 30 days of their ICU admission. They had twice the risk of dying within one year of their ICU admission, compared to participants with the fastest walk speeds.
- Participants with the poorest balance had a 77 percent higher risk of dying within 30 days of their hospital admission compared to participants with the fastest walk speeds.
- Participants whose balance was rated as "moderate" had a 52 percent higher chance of dying within 30 days of their ICU admission.

What's more, the researchers found that older adults who were weaker had longer hospital stays.

The researchers also noted that slower pre-hospital walk speed in particular was very strongly linked both to death and longer hospital stays.


Provided by American Geriatrics Society
