

# Low health literacy linked to heart failure deaths after hospitalization

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People who have difficulty understanding health information are more likely to die following hospitalization for acute heart failure, according to research published in the *Journal of the American Heart Association*.

The findings suggest that it is important for [healthcare providers](#) to be aware of their [patients'](#) [health literacy](#) skills - their ability to read, understand, and use health information - so patients can be given clear medical instructions.

"The treatment for heart failure can be complex and difficult to understand. It's important for patients to let their healthcare providers know if they don't understand the directions they were given for their medications, salt and fluid intake, and weight monitoring," said lead author Candace D. McNaughton, M.D., M.P.H., assistant professor of emergency medicine at Vanderbilt University Medical Center in Nashville.

Researchers tracked deaths among 1,379 patients (average age 63) who were discharged after hospitalization for [acute heart failure](#) - new or worsening symptoms of heart failure that may include breathing difficulty, weight gain from water retention, and leg swelling. When patients were admitted, nurses administered the Brief Health Literacy Screen, which asks about confidence in filling out medical forms independently, the need for assistance in reading, and understanding of medical information.

"Some people who are highly literate or highly educated may have difficulty reading and understanding healthcare information," McNaughton said.

With an average follow-up time of 21 months, patients with low health literacy (scoring below 10 on a scale from 3-15) were 34 percent more likely to have died than those with higher health literacy. The results were adjusted for age, sex, race, insurance status, education, other medical conditions, and how long they were in the hospital.

Patients with low health literacy were older and more likely to be male, insured by government health insurance, and to have not completed high school. These patients may also have difficulty communicating with healthcare providers, navigating the healthcare system, recognizing signs of health decline, and knowing when and who to contact when they do become ill, according to the study.

## **Researchers note that healthcare providers frequently overestimate the health literacy skills of their patients**

"Having health literacy measured by nurses during routine care may be an important way for us to determine which patients may need more help after discharge. However, we still need to determine what exactly to do for those with low health literacy. Should we simplify their medication regimen? Follow them in the outpatient setting more frequently or sooner after discharge? Give them extra resources like home health care? We don't know the answers to those questions yet," McNaughton said.

Within the first 90 days after hospital discharge, 30.1 percent of the patients were re-hospitalized and 14.6 percent visited the emergency department. However, health literacy made no apparent difference in these medical encounters.

"This was a somewhat surprising finding. Our study did not include re-hospitalizations at other hospitals, so the numbers we measured may be lower than the true number of hospitalizations," said McNaughton.

Heart failure occurs when the heart's pumping action is weakened and can't supply enough oxygen- and nutrient-rich blood to the body's organs. The condition affects more than 5 million Americans over the age of 20 and is a frequent cause of hospitalization. Projections show that by 2030, the total cost of [heart failure](#) could reach nearly \$70 billion according to American Heart Association statistics.

Provided by American Heart Association

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