

# Women are more likely than men to die in hospital from severe heart attack

## *Study highlights:*

- *Women and men have about the same overall in-hospital death rate after heart attack.*
- *However, women are twice as likely as men to die if hospitalized for a type of heart attack known as ST-elevation myocardial infarction (STEMI).*
- *Women are also less likely to receive appropriate and timely treatment for heart attack.*

DALLAS, Dec. 9, 2008 — Men and women have about the same adjusted in-hospital death rate for heart attack — but women are more likely to die if hospitalized for a more severe type of heart attack, according to a report in *Circulation: Journal of the American Heart Association*.

Among patients with ST elevation myocardial infarction (STEMI) in a recent study, the death rate was 10.2 for women compared to 5.5 for men. Researchers said the women were older and had higher overall baseline risk profiles than men. After adjustment for these and other differences, women with STEMI had a 12 percent higher relative risk for in-hospital death compared to men.

The study also found that some recommended treatments are delayed and underused in women. Researchers analyzed data from the American Heart Association's Get With The Guidelines (GWTG) program to determine if recent efforts to improve heart attack care at hospitals had closed the gender disparity gap. They reviewed the clinical characteristics, treatments and outcomes of more than 78,000 patients diagnosed with myocardial infarction admitted to 420 hospitals between 2001 and 2006.

“The finding that bears the most emphasis is that among both men and women presenting to Get With The Guidelines participating hospitals, there were no clinically meaningful differences in in-hospital survival after heart attack, once we factored in differences, such as age and other existing illnesses,” said Hani Jneid, M.D., lead author of the study and assistant professor of Cardiovascular Medicine at Baylor College of Medicine in Houston, Texas.

A decade ago, women had an overall higher death rate after heart attack compared with men. This suggests that these hospitals are now using high rates of evidence-based therapies shown to increase survival after heart attack.

“However, the finding of persistently higher death rates among women experiencing the more severe type of heart attack (STEMI) and the persistent gender gap in certain aspects of care underscore the existing opportunities to enhance post-heart attack care among women,” Jneid said.

In the study, Jneid and colleagues found that, compared to men, women were:

- 14 percent less likely to receive early aspirin;
- 10 percent less likely to receive beta blockers;
- 25 percent less likely to receive reperfusion therapy (to restore blood flow);

- 22 percent less likely to receive reperfusion therapy within 30 minutes of hospital arrival; and
- 13 percent less likely to receive angioplasty within 90 minutes of hospital arrival.

“We could not determine in this study to which extent these differences were due to physicians’ failures to administer optimal therapies to women vs. appropriate decision-making based on biological and other differences between men and women,” Jneid said.

Furthermore, researchers found that women admitted with a STEMI were about twice as likely to die in the first 24 hours of hospitalization as men.

“Although STEMI is not as common among women as it is among men, it is a concern that there is still this gap in mortality between men and women after the more severe heart attack,” said Laura Wexler, M.D., co-author of the study and senior associate dean at the University of Cincinnati College of Medicine.

Get With The Guidelines helps improve physicians’ awareness of proven post-heart attack therapies, said Gregg C. Fonarow, M.D., chairman of the Get With The Guidelines steering committee.

“As part of this effort, the American Heart Association has been collecting data from a large number of hospitals about the treatments and outcomes of therapy for heart attack victims,” said Fonarow, a professor of cardiovascular medicine at UCLA. Thus, GWTG “has not only helped improve care but also created a powerful research tool,” Fonarow said.

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**Editor’s Note:** The American Heart Association’s Get With The Guidelines<sup>SM</sup> quality improvement program is designed to help hospitals treat patients with evidenced-based medicine known to improve health outcomes. For more information, visit [www.americanheart.org/getwiththeguidelines](http://www.americanheart.org/getwiththeguidelines). In addition, the association’s Go Red For Women program offers valuable tools to help women learn healthy lifestyles to decrease their risk of STEMI at [www.GoRedForWomen.org](http://www.GoRedForWomen.org).

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