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## Increased hospitalisation for AMI linked to influenza



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According to the World Health Organization, each year approximately 3 to 5 million cases of influenza and nearly 300,000 to 650,000 respiratory deaths worldwide can be attributed to influenza. Vulnerable patients, including elderly patients, pregnant women, and immunocompromised patients are at a greater risk of developing influenza-related complications. They are also more likely to be hospitalised and infected with the flu virus.

In a new analysis published in [JACC: Heart failure](#), the association between influenza and clinical outcomes among patients who were hospitalised for acute myocardial infarction (AMI) was examined. Data for the analysis was obtained from the National Inpatient Sample from 2013 to 2014. 55,000 cases of patients hospitalised for heart failure with or without influenza were included in the analysis.

Results of the analysis show that an influenza infection can make patients who have been hospitalised for heart failure sicker. Increase in hospitalisation rates for AMI patients can be linked to influenza, especially in patients who had an influenza diagnosis a week before the cardiac event. A temporal association between the two outcomes thus seems fairly obvious.

Findings showed that heart failure patients who had the flu had higher rates of acute respiratory failure and were more likely to die in the hospital compared to those who did not have the flu. Also, heart failure patients with flu were at a higher risk of acute kidney injury.

Length of hospital stay was also much higher in heart failure patients with the flu. However, average hospital costs were similar in both patient groups - with and without the flu. The average length of hospital stay in heart failure patients with the flu was 5.9 days compared to 5.2 days for heart failure patients without flu. But the mean hospital costs were quite similar at \$12,137 for patients with flu and \$12,003 for patients without flu.

The findings do not suggest any correlation with the type of hospital. The link between increased hospitalisation rates in heart failure patients with flu seems applicable to all types - whether they are university affiliate or small community hospitals. While the results do not give a clear estimation of the extent to which influenza contributes to increased morbidity and mortality in these patients, they do suggest that influenza can have an impact on heart failure patients.

Traditional therapies cannot modify this increased risk, and that is why flu vaccination is the most effective way to mitigate this risk. Unfortunately, vaccination rates among the most vulnerable patients remain very low which is a major healthcare challenge. Application of vaccination among heart failure patients is something that needs to be taken seriously and should be a priority during influenza-epidemic periods.

Source: [JACC: Heart Failure](#)

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