Comparing disparity in inpatient mortality of Heart failure with reduced ejection fraction between teaching and non-teaching hospitals in the United States.

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Abstract:

Background:

Teaching hospitals offer a broad spectrum of clinical services in addition to training future physicians. However, their impact on the quality of patient care is not well known. Outcomes in teaching hospitals compared to non-teaching hospitals remains an important question. This study tries to answer this question with respect to cardiovascular outcomes by analyzing the data from nation inpatient sample for patients hospitalized with primary diagnosis of heart failure with reduced ejection fraction(HFrEF).

Methods:

We used the Nationwide Inpatient Sample (NIS), the largest all-payer inpatient database in the United States, to analyze the trends in hospital management and outcomes in patients hospitalized for HFrEF to teaching and non-teaching hospitals during the time period from 2012 to 2014. Primary outcome of this study was inpatient mortality and secondary outcomes included total cost, total charge and duration of hospitalization. Outcomes were compared in different hospital categories using Chi-square tests for categorical variables and Student's t-tests for continuous variables as appropriate. ANOVA was used for paired data.

Results:

Most number of patients were hospitalized in urban teaching hospitals. Overall in-hospital mortality was 3.05 % in urban teaching hospitals compared to 2.75% for urban non-teaching hospitals during the study period. However the p-value for this small difference was 0.301 indicating statistically insignificance. Overall length of stay/hospitaization is higher for urban teaching hospitals (6.2 days vs 4.96 days, p value <<0.005). Mean charge and mean cost are higher in urban teaching hospitals. The trends in the primary and all secondary outcomes was consistent for all three years when analyzed separately.

Conclusion:

There is no difference in inpatient mortality for HFrEF between teaching and non-teaching hospitals. Mean charge, cost and length of stay are higher for teaching as compared to non-teaching hospitals.

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