



## Practice Performance, Improvement and Administration

### PREDICTING READMISSION WITHIN 30 DAYS OF DISCHARGE AFTER MYOCARDIAL INFARCTION TREATED AT A COMMUNITY HOSPITAL

Poster Contributions

Poster Sessions, Expo North

Saturday, March 09, 2013, 10:00 a.m.-10:45 a.m.

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Session Title: Chest Pain and MI: The Good, the Bad and the Readmission Rate

Abstract Category: 22. Performance Improvement

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**Background:** Readmission after Acute Myocardial Infarction (AMI) is a current public target for quality improvement as it is common, costly and often preventable. There is a paucity of data regarding consistent factors predicting readmission after an AMI. We aimed to compare the current readmission risk prediction tool at St. Vincent Hospital (SVH) with the standard Yale model to assess all-cause readmission within 30 days of discharge after an index diagnosis of AMI at SVH.

**Methods:** A retrospective chart review was performed from July 1, 2011 - December 31, 2011. All patients admitted to SVH with age  $\geq 65$  years and an index diagnosis of AMI were included. The existing SVH tool was based on a combination of criteria spanning broad groups of medical complexity, functional/cognitive status and social factors. The Yale score was based on objective data of demographics, symptoms on initial presentation, history, physical exam, EKG and diagnostics. We compared both tools using retrospective patient data.

**Results:** Of a total of 118 patients, 23 (19.4%) were readmitted for all-cause, (mean age 85 years, 65.2% male). 10/23 (43.5%) readmissions were related to recurrent chest pain or CHF followed by HCAP/sepsis, thrombo-embolic events and and bleeding complications secondary to antiplatelet medications. Patients who were readmitted had a longer duration of index hospitalization (4.6 days vs. 3.8 days) and the mean interval between index hospitalization and readmission was 9.5 days. Social factors had minimal contribution to readmission risk stratification in our cohort. The mean Yale score for readmissions was 21.4 % (range 11-43%). Using multivariate logistic regression analysis, presence of bundle branch block (BBB), ST depression on admission EKG, persistent pain at discharge, WBC  $> 12$  on admission, previous ER/hospital visits within 30 days prior to index admission were independent predictors of readmission.

**Conclusion:** Readmissions are often not related to the index event. Our current tool is not an adequate predictor of this and a model based on incorporation of objective data may facilitate risk stratification on index admission. A prospective study is warranted to further validate this.