UC Irvine

UC Irvine Previously Published Works

Title

Administrative Coding and Clinician Documentation of Mental Health Issues for Hospitalized Heart Failure Patients: Is There Agreement

Permalink

<https://escholarship.org/uc/item/6k6387rw>

Journal

Journal of Cardiac Failure, 20(8)

ISSN

1071-9164

Authors

Bender, M
Bender, M

Publication Date

2014

Copyright Information

This work is made available under the terms of a Creative Commons Attribution License, available at <https://creativecommons.org/licenses/by/4.0/>

Peer reviewed

Administrative Coding and Clinician Documentation of Mental Health Issues for Hospitalized Heart Failure Patients: Is There Agreement?

Miriam Bender¹, Tyler Smith², Freshta Nejati³; ¹Sharp HealthCare, San Diego, CA; ²National University, San Diego, CA; ³Sharp HealthCare, San Diego, CA

Purpose: Previous research suggests an association between depression and poorer clinical outcomes for heart failure patients. Administrative ICD-9 coding is used extensively in health services research to capture variables of interest for outcomes studies, such as mental health issues. However, there is limited evidence of the accuracy of administrative ICD-9 coding for identifying patient-level mental health issues. The purpose of this study was to determine the agreement between ICD-9 coding and ‘gold standard’ clinician documentation in a patient’s History & Physical, consult notes and/or discharge summary of a mental health issue, as part of a larger study examining predictors of readmission for hospitalized heart failure patients.

Methods: Study sample (n5504) was randomly chosen from the population of all unique patients (n53770) hospitalized with a heart failure primary diagnosis from 2009-2012 at one of four Sharp HealthCare (a large community based health system) hospitals with complete electronic records. A mental health issue was defined as any ICD-9 code between 290-319 in any discharge diagnosis position from 1-30. Study sample patient records were manually reviewed to identify mental health issue documentation in the dictated History & Physical, discharge summary, and/or consult notes. Three reviewers copied text suggesting any mental health issue into a data spreadsheet and recorded where text was found. Documented text was reviewed by all three reviewers and consensus reached to indicate a mental health issue. Reviewers were blinded to administrative coding data. Agreement was calculated using the Kappa statistic for non-random agreement. Results: Thirty four percent (n51285) of the total HF population were coded for a mental health issue, and 33% of the study sample (n5164). Agreement between coding and chart review to identify mental health issue was 89%, with a 4% false positive and 10% false negative rate. Positive predictive value was 87% and negative predictive value was 85%. The Kappa statistic was .69; CI .61-.79, interpreted as substantial agreement. There was no significant difference in rates of mental health categories between manual chart review and ICD-9 coding for anxiety/depression, 31% vs. 29% (p5.59); dementia, 25% vs. 18% (p5.10); and alcohol/drug abuse, 14% vs. 18% (p5.39).

Conclusion: ICD-9 coding appears to be a reliable method for identifying mental health issues for patients hospitalized with heart failure. To our knowledge this is the first study to determine agreement between coding and clinician documentation of mental health issues/categories for hospitalized heart failure patients.

Citation: Miriam Bender, Tyler Smith, Freshta Nejat. Administrative Coding and Clinician Documentation of Mental Health Issues for Hospitalized Heart Failure Patients: Is There Agreement? *Journal of Cardiac Failure*, Volume 20, Issue 8, Supplement, August 2014, Page S45 DOI: 10.1016/j.cardfail.2014.06.127