The Validity Of Self-Reported Primary Adherence Among Medicaid Patients Discharged From The Emergency Department With A Prescription Medication

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Background: ED clinicians rely primarily on self-reported medication adherence for diagnostic and treatment purposes, it is important to evaluate its accuracy.

Objectives: To determine the validity of self-reported prescription filling among patients issued a prescription at emergency department (ED) discharge.

Methods: We analyzed a subgroup of 1,026 patients enrolled in a randomized controlled trial who were prescribed at least one medication at ED discharge, were covered by Medicaid insurance and completed a telephone follow-up interview one week after the index ED visit. We extracted all pharmacy and healthcare utilization claims information from a state Medicaid database for all subjects within 30 days of their index ED visit. We used the pharmacy claims data as the gold standard and evaluated the diagnostic accuracy of self-reported prescription filling obtained during the follow-up interview by estimating its sensitivity, specificity, positive predictive value (PPV) and negative predictive value (NPV). Multivariate logistic regression analyses were conducted to examine whether the accuracy of self-reported prescription filling varied significantly by drug, patient and healthcare characteristics.

Results: Of the 1,635 medications prescribed, 74% were filled based on the pharmacy claims data. Subjects reported filling 90% of the prescriptions for a difference of 16% (95% CI 14%, 18%). The self-reported data had high sensitivity (0.96; 95% CI: 0.95- 0.97) but low specificity (0.30; 95% CI: 0.26- 0.34). The PPV and NPV of the self-reported data were moderately high (0.80; 95% CI: 0.78- 0.82 and 0.73; 95% CI 0.66-0.80). Controlling for drug, patient and healthcare utilization
factors, respiratory drugs were significantly associated with lower sensitivity compared to central nervous system drugs (Odds Ratio (OR)=0.26; 95% CI: 0.12 - 0.54). Over the counter drugs were also significantly associated with lower sensitivity (OR=0.44, 95% CI: 0.22, 0.85) compared to drugs that required a prescription. Patients with past ED visits were significantly associated with lower specificity (OR=0.48, 95% CI: 0.28, 0.85) compared to those with no past ED visits. **Conclusion:** Self-reported prescription filling is modestly overestimated. Relatively few predictors are associated with inaccurate self-reported prescription filling.