Higher acute care hospital utilization among medical inpatients discharged with a substance use disorder diagnosis

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BACKGROUND

- Substance use is associated with high rates of utilization
- Substance use disorders, which are often treatable, may undermine discharge planning and lead to recurrent utilization
- Re-utilization is expensive and potentially preventable
- Previous studies ignored or excluded substance use disorders
- In general medical inpatients, the contribution of substance use to recurrent acute care utilization has not been studied

OBJECTIVE

To determine if a substance use disorder diagnosis (SU Dx) at discharge is associated with additional emergency department visits and re-hospitalizations (acute care hospital utilization)

SUBJECTS AND DATA COLLECTION

- Subjects: 738 adults admitted to the medical teaching service at Boston Medical Center (BMC) 10/6/05 to 07/14/06
- Exclusion criteria: Same-day admission, ED visits, co-morbid medical diagnosis, or if they received care at the BMC, other hospitalization, or inpatient care within 30 days of discharge
- Data regarding the inpatient stay and hospital discharge were obtained through inpatient and outpatient electronic medical records
- Other data were collected on the day of discharge and weeks 1 and 2
- Data collection was approved by the Institutional Review Board

RESULTS

- Table: Subject Characteristics
- Graph: Rates of Utilization: # of visits per patient

DEVELOPMENT and ANALYSES

- DESIGN: Observational cohort study using data collected for the Project RED study
- ANALYSIS: Poisson and binomial regression models were used to compute incident rate (IRs) and odds ratios (ORs)

LIMITATIONS

- Independent variable defined by ICD-9 codes
- Utilizations outside the BMC system not included

SUMMARY and IMPLICATIONS

- 17% of general medical inpatients had a substance use diagnosis at discharge
- Higher utilization at 30, 60, and 90 days post-discharge
- Higher utilization attributed to subjects with drug use-related diagnoses
- Medical inpatients with SU Dx should be targeted for re-engineered discharge programs
- Further study of tailored interventions for this population is warranted

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