CLINIC CHARACTERISTICS ASSOCIATED WITH REDUCED HOSPITALIZATION OF DRUG USERS WITH AIDS

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ABSTRACT

Objective. To identify features of ambulatory care associated with reduced hospitalization among drug users with acquired immunodeficiency syndrome (AIDS).

Methods. A nonconcurrent prospective study of hospital use by 1,369 drug users with AIDS was conducted using data from New York State Medicaid research data files linked to telephone interview data from directors of ambulatory care clinics serving this group.

Results. Follow-up averaged 29 months, during which 88% of subjects were hospitalized at least once. On average, those hospitalized spent 14% of follow-up time as inpatients. Hospitalization was less likely for patients in clinics with case managers (adjusted odds ratio = 0.42, 95% confidence interval 0.25, 0.69) or high director's rating of coordination of care (adjusted odds ratio = 0.50, 95% confidence interval 0.29, 0.89). Multivariate analysis showed significantly less time in hospital for patients in clinics with methadone maintenance, case managers, high continuity ratings, and clinic physicians attending for hospitalized clinic patients.

Conclusions. Drug users with AIDS rely heavily on inpatient care, but those followed in clinics featuring greater coordination and offering special services, including methadone treatment and case management, appear to have significantly less hospital use.

KEY WORDS Acquired immunodeficiency syndrome, Substance abuse, Hospitalization, Ambulatory care.

INTRODUCTION

The costs of caring for persons with AIDS are driven in large part by the amount of time spent in the hospital.1 Among persons with acquired immunodeficiency

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syndrome (AIDS), those who use illicit drugs use significantly more inpatient services than non-drug users. Drug users have been reported to spend 2 to 3 weeks longer in hospital than non-drug users in the interval between AIDS diagnosis and death. Both health care and social factors underlie drug users' dependence on inpatient services. Because substance abuse treatment and medical care are usually delivered at separate sites, drug users' ambulatory care has been notoriously disjointed. This lack of coordination and accessibility may, in turn, lead to deficiencies in preventive care and delays in the diagnosis and treatment of complications related to human immunodeficiency virus (HIV). Social factors such as homelessness and absence of involved family or friends may also contribute to increased reliance on hospital care for conditions that might have been managed out of hospital had adequate social supports been present.

In this study, we identify features of ambulatory clinic care associated with reduced inpatient utilization among drug users with AIDS enrolled in the New York State Medicaid program. Our analysis focuses on a broad array of medical, substance abuse, and social services that we hypothesized might affect hospital utilization by addressing problems in coordination, comprehensiveness, and accessibility of medical care or social support deficits in this population.

METHODS

Data Sources

Patient Data. The New York State (NYS) Medicaid HIV/AIDS Research Data Base* offers demographic data and longitudinally linked inpatient and outpatient claims for Medicaid enrollees with advanced HIV infection in the years 1984 through 1992. Clinical data on NYS Medicaid claims are coded by the International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), with up to five diagnoses per inpatient stay and two per outpatient visit. Criteria for entry into the database have been tested against AIDS registry data and use specific patterns of AIDS-related diagnoses and HIV-specific treatments. The date of the first clinical AIDS diagnosis was specified according to the 1987 revision of the Centers for Disease Control and Prevention's (CDC) AIDS Surveillance Case Definition, which was operative in all the years of our study. Illicit drug use was identified from inpatient or outpatient coded diagnoses that indicated dependence or abuse of cocaine, heroin, or other illicit substances or from claims for drug treatment services such as methadone maintenance. The method-

*The NYS Medicaid HIV/AIDS Research Data Base was made available to the authors by special arrangement.