HIV Infection in US ESRD Patients

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BACKGROUND

HIV infection has affected primarily African-American men in the ESRD program. We previously showed the incidence of HIV infection in ESRD patients plateaued by 2000, but the prevalence had increased monotonically.

OBJECTIVE

To describe trends from 1995 to 2011 in numbers of human immunodeficiency virus (HIV)-infected ESRD patients and to enumerate the annual mortality rate in HIV-infected patients.

METHODS

We used data from 1995–2011 USRDS to describe recent trends of numbers of HIV-infected ESRD patients using two identification methods, Method 1: AIDS nephropathy listed as the primary cause of ESRD in CMS Form 2728. Method 2: HIV-infected patients were those with at least one hospitalization and/or two outpatient encounters (not including visits for diagnostic laboratory) in a 1-year observation period with an HIV/AIDS diagnosis (ICD-9 codes 042, 043, 044, 0793, and X89) in Medicare billing data. The HIV identification date for any patient identified by Method 1 was the date of the first ESRD service. The HIV identification date for patients that met the criteria only for Method 2 was the date of the first hospitalization for HIV/AIDS diagnosis or the second HIV/AIDS outpatient encounter after ESRD service, whichever came first. To calculate mortality rates in overall HIV-infected ESRD patients, patients were followed for all-cause death from the date of HIV identification through August 31, 2012.

RESULTS

In 1995-2011 prevalent general ESRD patients, 13,860 AIDS nephropathy patients were identified by Method 1 and 13,707 HIV-infected patients were exclusively identified by Method 2. The number of new AIDS nephropathy patients recorded was relatively stable from 810 in 1995 to 813 in 2000, but decreased 34% to 535 in 2011. In contrast, the number of period prevalent HIV/AIDS patients increased linearly almost 3 fold from 3,207 in 1995 to 9,505 in 2011. Mortality rates in HIV/AIDS ESRD patients declined during these years but remained higher than general ESRD patients of comparable age.

CONCLUSIONS

Medicare billing data enhances identification of HIV-infected ESRD patients. The incidence of HIV infection in the ESRD program has decreased, but prevalence has increased as patient mortality has decreased. These findings are likely a result of access to antiretroviral therapy.

Table 1. Distribution by selected patient characteristics of period prevalent HIV-infected ESRD patients, 1995–2011

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<th>Female</th>
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<th>Male</th>
<th>Female</th>
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<th>Male</th>
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<th>Female</th>
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