

Letters to the Editor

AN EVALUATION OF THE PATIENT CODE NUMBER FOR HIV CASE REPORTING

Advances in AIDS-related therapies have reduced the usefulness of AIDS surveillance in assessing the incidence of early HIV disease and estimating future needs of the HIV-infected population.¹ Consequently, all 50 states have implemented HIV surveillance. Expansion of surveillance to include HIV prompted a national debate on whether an HIV surveillance system should be based on confidential name-based or code-based reporting.²

In 1998, the Illinois Department of Public Health (IDPH) implemented reporting of HIV infection using a Patient Code Number (PCN). Elements of the PCN included the first and third letters of the last name, number of letters in the last name, sex, and date of birth. An evaluation of the PCN was performed during August to September 2005 guided by methods outlined in the administrative code.³

Briefly, the evaluation involved determining if a system to link the patient code numbers to the subject of the case report was maintained by at least 95% of the providers and if 95% of providers could match a patient code number to a case report. Illinois facilities that reported one or more cases of HIV during January 1, 1999 to December 31, 2004 were queried from the HIV/AIDS Reporting System (HARS). The facility list was edited to create a sampling frame containing 594 out of 812 facilities that reported one or more cases of HIV during 1999 to 2004. Forty-four facilities were selected to contribute to the evaluation.

Seventy-seven percent (34/44) of facilities had a system to link the PCNs for reported cases of HIV infection to the subject of the case report; however, only 36% (16/44) of facilities maintained a provider log that specifically included the PCN for each case. Only 60% (409/681) of requested medical records were produced for review during a scheduled on-site visit to each facility where the facility was not given prior notice of which PCN-linked records would be reviewed. Of the medical records that were produced during the visit, 92% (375/409) of PCNs created from the medical record matched the PCN listed on the case report.

Twenty-three percent of facilities had no system to link the PCN to medical records, thus removing the ability of the public health department to obtain information from a case's medical record. The evaluation also demonstrated that less than 95% of PCNs created from the medical record matched the PCN listed on the case report. Therefore, code-based reporting of HIV infection by PCN did not meet the administrative guidelines.

The Centers for Disease Control and Prevention (CDC) do not include code-based data in national HIV/AIDS reports. Furthermore, the Ryan White Care Act, which funds treatment and care for HIV-infected persons, may soon use a formula based on CDC HIV case counts for distribution of funds to states that will likely underestimate the burden of disease in Illinois under a code-based system. Therefore, to ensure more accurate HIV surveillance, on January 1, 2006 Illinois began the transition from a code-based to a confidential name-based HIV reporting system.

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INCREASE IN DEATHS RELATED TO ENTEROCOLITIS DUE TO CLOSTRIDIUM DIFFICILE IN THE UNITED STATES, 1999-2002

A review of U.S. death certificate data for the period 1999 through 2002, the latest year for which statistics are available, indicates an increase in the annual number of deaths attributed to enterocolitis due to *Clostridium difficile*, ICD-10 code A04.7. In 1999, there were 793 deaths of 2.39 million total deaths in which this code was listed as the underlying cause of death and 2,195 of 2.44 million deaths in 2002, a 2.7-fold increase in the age-adjusted rates (Table). Similarly, the number of deaths with enterocolitis due to *C. difficile* listed on death certificates as total mentions (combined number of the immediate cause, underlying cause, contributing to the underlying cause, or as a significant condition not contributing to the underlying cause) increased from 1,545 in 1999 to 3,514 in 2002, a 2.3-fold increase.¹

Age- and sex-specific rates for males and females (Table) based on underlying cause of death on certificates¹ and population census data also show considerable increases for 1999 through 2002. Rates increased

with age and the overall rate for females was higher than for males, while elderly males and females had similarly high rates.

Anti-infective medications,² gastric acid suppressive agents,³ and chemotherapeutic drugs⁴ have been implicated as likely or possible causes of enterocolitis due to *C. difficile* in hospital- and community-acquired settings. It is not possible to determine if medications are mentioned as causes of enterocolitis on death certificates without obtaining copies of them. Recent studies have also reported the identification of a severe epidemic strain of the bacterium in the U.S.,⁵ but it is not known if this strain contributed to the increase in deaths during this period. Also, although toxigenic *C. difficile* detection by tissue culture cytotoxin assay is often considered as the "gold standard," a rapid sensitive and specific assay has been developed,⁶ which if widely adopted, might have contributed to diagnosis and the increase in the number of deaths.

In summary, death certificate data indicate recent increases in deaths associated with enterocolitis due to *C. difficile*. Continued surveillance of mortality related to this infection using death certificate data indicates national trends and would help determine the need for increased emphasis on prevention, early detection, and treatment.

Table. Age- and sex-specific rates^a of enterocolitis due to *Clostridium difficile* (as the underlying cause of death) in the United States, 1999 through 2002

	1999	2000	2001	2002
All ages ^b	0.29	0.39	0.47	0.77
Males	0.23	0.31	0.35	0.60
Females	0.35	0.47	0.58	0.92
1-39 years	0.003	0.007	0.007	0.008
Males				
40-49	0.02	0.04	0.03	0.06
50-59	0.07	0.14	0.12	0.25
60-69	0.33	0.54	0.50	1.00
70-79	1.45	1.93	2.30	3.66
80-89	4.17	5.80	6.58	11.0
≥90	11.68	12.58	14.92	26.8
Females				
40-49	0.02	0.04	0.03	0.08
50-59	0.04	0.11	0.17	0.23
60-69	0.35	0.43	0.61	0.84
70-79	1.18	1.74	2.08	2.15
80-89	4.50	3.63	7.02	11.3
≥90	10.02	12.38	15.81	23.0

Sources: Public Use Data Tape Documentation. Multiple cause of death for ICD-10 1999-2002 data. Department of Health and Human Services (US), Public Health Service, National Center for Health Statistics: Hyattsville (MD): 2002.

Population census data.

^aAge- and sex-specific rates per 100,000 population. Rates are based on enterocolitis due to *Clostridium difficile* as the underlying cause of death and on population census data.

^bAge-adjusted rates per 100,000 population using the year 2000 standard.

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