

C. difficile Hospitalizations, Deaths Spark Concern

BY DIANA MAHONEY
New England Bureau

A sharp rise in the number of adult hospitalizations and deaths attributable to *Clostridium difficile* infection over a 6-year period has investigators calling for increased allocation of public health resources aimed at the prevention of disease caused by the gastrointestinal pathogen.

In a population-based analysis of adult hospitalizations related to *C. difficile*-associated disease (CDAD) between 2000 and 2005, Dr. Marya D. Zilberberg of the University of Massachusetts School of Public Health and Health Sciences, Amherst, and colleagues determined that the incidence of adult CDAD hospitalizations rose from 5.5 cases per 10,000 population in 2000 to 11.2 per 10,000 population in 2005. Furthermore, by applying published population-based CDAD mortality estimates for 2000-2004 to the annual CDAD hospitalization volumes, they reported that the CDAD-related, age-adjusted case fatality rate rose from 1.2% in 2000 to 2.2% in 2004.

"We detected a 23% annual increase in CDAD hospitalizations in the 6-year period from 2000 through 2005," they wrote. "Moreover, the absolute number of CDAD hospitalizations more than doubled in all age groups except the youngest, for whom

they increased by 74.1% over the study period." The rate of increase in the incidence of CDAD was steepest in those aged 85 years and older, and followed by those aged 65-84 years, those aged 45-64 years, and those aged 18-44 years (Emerg. Infect. Dis. 2008;14:929-31).

The numbers help explain the increasing mortality rates related to CDAD, the authors wrote, referring specifically to a recent report documenting a 35% per year increase in the number of CDAD deaths from 1999 through 2004 (Emerg. Infect. Dis. 2007;13:1417-9).

"By observing a 23% per year increase in the volume of hospitalizations with CDAD during 2000-2005, we demonstrate that at least half of the reported mortality increase with CDAD is due to an increase in the incidence of hospitalizations with this severe infection," they stated, noting the increased hospitalization likely represents the effects of increased virulence of the organism and growing resistance to some antibiotics.

Data for the current analysis were obtained from the National Inpatient Sample, which is a 20% sample of U.S. community hospitals, weighted to provide national estimates. The researchers identified CDAD by ICD-9-CM code 8.45 for intestinal infection with *C. difficile*, and age-stratified the number of discharges

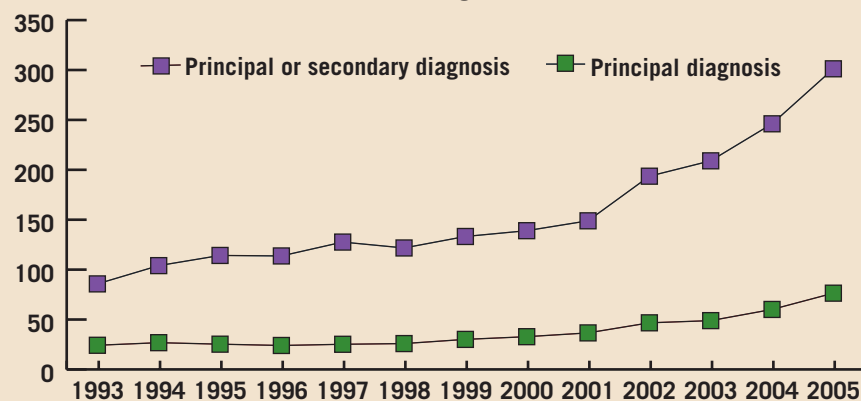
per year. Using U.S. census data on numerical and demographic characteristics of the U.S. population from 2000 to 2005, they calculated age-specific hospitalization incidence rates and fitted linear models to describe the age-specific growth.

"The rapid rate of growth of CDAD-related hospitalizations and mortality is alarming, particularly in view of the aging popu-

lation. If this rate of rise, along with the increase in virulence and diminished susceptibility to antimicrobial drug treatments, persists, *C. difficile*-associated disease will result not only in a considerable strain on the health care system but also in rising numbers of deaths." For this reason, "research into the best preventive strategies... is a public health imperative." ■

DATA WATCH

Increased Hospitalizations Involving *Clostridium difficile*-Associated Disease (number of discharges in thousands)



Source: Agency for Healthcare Research and Quality

ELSEVIER GLOBAL MEDICAL NEWS

Drug Use, Hygiene Listed as MRSA Risk Factors in Gay Men

BY JEFF EVANS
Senior Writer

BETHESDA, MD. — Community-associated methicillin-resistant *Staphylococcus aureus* infections in gay men might be associated with drug use and low levels of hygiene, especially after having sex.

Based on reports from a commercial laboratory that handles about half of the cases sent to the bureau of communicable diseases at the New York City Department of Health and Mental Hygiene, Melissa A. Marx, Ph.D., and her colleagues identified 188 men who have sex with men (MSM) with CA-MRSA infections out of 2,813 patients from New York who had *S. aureus* skin infections during April 2005 to September 2007.

In the first year of the study, Dr. Marx and her colleagues conducted telephone interviews with the 188 men using a structured questionnaire. After the first year, the researchers interviewed 195 MSM patients to serve as controls. They had been diagnosed with amebiasis or giardiasis during July 2006 to October 2007. These gastrointestinal infections are found commonly in MSM because of sexual transmission, said Dr. Marx, director of the department's antibiotic resistance unit.

Patients in the control group were more likely to be non-Hispanic white, but the overall profile of both groups was a "white, educated [resident of] Manhattan, [an] affluent community in New York City," Dr. Marx said at an annual conference on an-

timicrobial resistance sponsored by the National Foundation for Infectious Diseases.

Because the results of laboratory testing for CA-MRSA had not yet been completed, the researchers defined "community-associated" by the patients' lack of exposure during the past 3 months to hospital stays, residence in a long-term care facilities, invasive outpatient procedures, or hemodialysis.

Factors that were significant, independent predictors of CA-MRSA infection included having sex at a private party in the year before infection, routinely waiting more than 30 minutes to wash after sex, physical contact with someone with a skin infection within the past 3 months, having HIV/AIDS, and crystal methamphetamine use.

Dr. Marx cautioned that the patients in the study were from private physician offices and therefore do not represent patients without insurance who seek care at emergency departments or public clinics.

The goal of the Department of Health and Mental Hygiene's research on risk factors for MRSA in groups at high risk for the condition is to develop "prevention advice and interventions for populations at high risk," Dr. Marx said. But, "it's been hard to get a hold of what the risk groups are for community-associated MRSA because we've seen outbreaks in communities as diverse as sports participants, inmates, military recruits, men who have sex with men."

Previous studies of groups at high risk for CA-MRSA showed skin-to-skin infection transmission is affected by crowding, compromised skin, and lack of cleanliness. ■

'Express Visits' Expedite Time To Treatment in STD Clinics

BY MARY ELLEN SCHNEIDER
New York Bureau

NEW YORK — Busy STD clinics may be able to offer "express visits" that provide disease screening only for asymptomatic patients without missing infected individuals.

Researchers with the New York City Department of Mental Health and Hygiene and the Centers for Disease Control and Prevention evaluated the impact of instituting routine express visits in nine of the city's free walk-in clinics. During an express visit, asymptomatic patients with no known contact with an STD case were given the option of skipping the physician visit and being screened for gonorrhea, chlamydia, syphilis, and HIV.

The use of express visits allowed the clinic staff to screen a large number of asymptomatic patients, resulted in better use of physician resources, allowed for the treatment of more patients who were positive for gonorrhea or chlamydia infections, and improved the time to treatment, according to the results of the study.

In 2006, the nine clinics conducted 18,421 physician visits and 6,064 express visits. The proportion of patients who presented with symptoms during the physician visit increased from 74% in 2005 to 86% in 2006. There also was a decrease in the time to treatment for those seen during a physician visit. The median time to treatment dropped from 14 days in 2005 to 10 days in 2006. The me-

dian time to treatment for those who underwent express visits in 2006 was 9 days.

The number of gonorrhea or chlamydia infections that were diagnosed during a physician visit increased following the establishment of express visits in 2006. The number of gonorrhea or chlamydia infections detected during physician visits rose from 2,043 in 2005 to 2,081 in 2006. There were also 536 cases diagnosed during express visits.

Express visits appear to work well for the "worried well" population, Jessica M. Borrelli, a research scientist in the bureau of STD control of the New York City Department of Mental Health and Hygiene, said in an interview. For example, individuals who come in because they have a new sexual partner can be screened for STDs without tying up physician time, she said. Ms. Borrelli presented the poster at a joint conference of the American Sexually Transmitted Diseases Association and the British Association for Sexual Health and HIV.

In 2005, the express visit option was conceived in an effort to deal with the increasing patient volume at New York City STD clinics. The following year, the express visit was introduced as a routine option. The researchers used clinic electronic medical records to compare patient data from September-December 2005—before express visits became routine—with patient data from September to December 2006—after the express visits were established. ■