

PREVALENCE OF TRICHOMONIASIS AMONG REPRODUCTIVE-AGE WOMEN

Investigators estimated the prevalence of *Trichomonas vaginalis* infection among a nationally representative sample of reproductive-age women (age 14–49 yr). Participants (N = 4646) were interviewed for the National Health and Examination Survey cycles (years 2001–2004) and were asked to report to a mobile examination center to provide self-collected vaginal swab specimens. Polymerase chain reaction was used to detect the presence of *T. vaginalis*. Overall, 3754 (81%) women provided swab specimens. The overall prevalence of trichomoniasis was 3.1% (95% confidence interval [CI], 2.3%–4.3%). The prevalence was 1.3% (95% CI, 0.7%–2.3%) for non-Hispanic white women, 1.8% (95% CI, 0.9%–3.7%) for Mexican American women, and 13.3% (95% CI, 10.0%–17.7%) for non-Hispanic black women. Multivariate analyses revealed that the following factors increased the likelihood of *T. vaginalis* infection: non-Hispanic black race/ethnicity, being born in the United States, higher number of lifetime sex partners, increasing age, lower educational level (high school or lower), poverty, and douching. Significant racial disparity exists among women with trichomoniasis, with the prevalence among non-Hispanic black women being 10.3 times higher than other women. Effective prevention and control strategies for *T. vaginalis* infection should be explored as a means of closing the racial disparity gaps and decreasing adverse health outcomes.

Sutton M, Sternberg M, Koumans EH, et al. The prevalence of *Trichomonas vaginalis* infection among reproductive-age women in the United States, 2001–2004. *Clin Infect Dis* 2007;45:1319–26.

DURATION OF HUMORAL IMMUNITY TO COMMON VIRAL AND VACCINE ANTIGENS

The authors performed a longitudinal analysis of antibody titers specific for viral antigens (vaccinia, measles, mumps, rubella, varicella-zoster virus, and Epstein-Barr virus) and nonreplicating antigens (tetanus and diphtheria) to assess the duration of humoral immunity and to define the role of memory B cells in maintaining protective immunity. Subjects from a single-center primate research institute were invited to participate, and 45 of the 51 respondents were included. Patients were excluded if they did not have at least 3 serum samples banked for 3 or more years before the study began. Samples (N = 630) were collected annually or in the event of exposure (eg, bite or scratch) to a nonhuman primate. In addition, the authors measured antigen-specific memory B cells by means of limiting-dilution analysis and compared memory B-cell frequencies with their corresponding serum antibody levels. Antiviral antibody responses were stable, with half-lives

ranging from an estimated 50 years for varicella-zoster virus to more than 200 years for other viruses such as measles and mumps. Antibody responses against nonreplicating antigens decreased more rapidly, with estimated half-lives of 11 years for tetanus and 19 years for diphtheria. B-cell memory was long-lived, but there was no significant correlation between peripheral memory B-cell numbers and antibody levels for 5 of 8 antigens tested. This finding suggests that peripheral memory B cells and antibody-secreting plasma cells may represent independently regulated cell populations and may play different roles in the maintenance of protective immunity.

Amanna IJ, Carlson NE, Slijka MK. Duration of humoral immunity to common viral and vaccine antigens. *N Engl J Med* 2007;357:1903–15.

INCIDENCE AND COMPLICATION RATES OF HERPES ZOSTER PRIOR TO VACCINE INTRODUCTION

Using population-based data from 1 January 1996 to 15 October 2005, researchers retrospectively determined the incidence of herpes zoster (HZ) infection and the rate of HZ-related complications in adult (≥ 22 yr) residents of Olmsted County, MN, prior to the introduction of the HZ vaccine in 2006. Adult patients who were diagnosed with HZ between 1 January 1996 and 31 December 2001 were identified, and patient medical records were reviewed to confirm that the diagnosis was new. Data on HZ incidence and complications were also collected. Incidence rates were determined by age and sex and adjusted to the US population. A total of 1669 adult residents had a confirmed new diagnosis of HZ. Most patients (92%) were immunocompetent and 60% were women. When adjusted to the US adult population, the incidence of HZ was 3.6 per 1000 person-years (95% CI, 3.4–3.7), with a temporal increase from 3.2 to 4.1 per 1000 person-years from 1996 to 2001. Postherpetic neuralgia occurred in 302 (18%) patients with HZ and in 82 (33%) patients aged 80 years and older. Overall, 159 (10%) patients with HZ experienced 1 or more nonpain complications. The incidence of HZ and the rate of HZ-associated complications increased with age, with 1131 (68%) cases occurring in those aged 50 years and older. These data suggest that HZ primarily affects immunocompetent adults older than 50 years; 1 of 4 patients experiences some type of HZ-related complication.

Yawn BP, Saddier P, Wollan PC, et al. A population-based study of the incidence and complication rates of herpes zoster before zoster vaccine introduction. *Mayo Clin Proc* 2007;82:1341–9.

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