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Gonococcal Infection — Alaska, 2012 and January–March 2013

Background

Alaska is still experiencing a *Neisseria gonorrhoeae* (GC) epidemic that started in 2008 and peaked in 2010.¹ Untreated or inadequately treated GC infection can result in pre-term labor, pelvic inflammatory disease (PID), ectopic pregnancy, and infertility among women; epididymitis and infertility among men; and conjunctivitis in neonates.

The U.S. Centers for Disease Control and Prevention (CDC) reports growing evidence of the emergence of cephalosporin-resistant GC strains nationally, and now recommends treating uncomplicated GC with a single intramuscular dose of ceftriaxone 250 mg and a second antimicrobial.^{2,3} Combination therapy treats the frequently co-occurring pathogen *Chlamydia trachomatis* (CT) and helps prevent further cephalosporin resistance.

CDC recommends obtaining rectal and oropharyngeal specimens for GC and CT testing in persons engaging in receptive anal and oral sex.⁴ The Alaska State Public Health Laboratory (ASPHL) began accepting rectal and oropharyngeal specimens for GC and CT testing in August 2011.

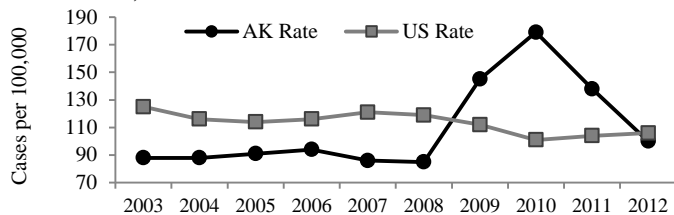
Methods

Case data were obtained from the Section of Epidemiology (SOE) reportable conditions database and the Sexually Transmitted Diseases-Management Information System. ASPHL records were reviewed regarding non-genital GC/CT specimens submitted January 2012 through March 2013. Population data were obtained from the Alaska Department of Labor and Workforce Development.

Results

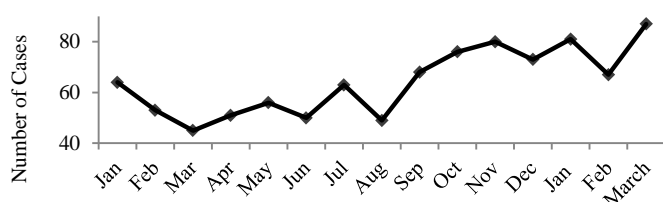
During 2012, 731 GC cases were reported to SOE. Alaska's GC infection rate was 100 cases per 100,000 persons, representing a 26% decrease in reported cases and a 28% decrease in the GC incidence rate compared to 2011 (Figure 1).¹ The median number of GC cases reported per month in 2012 was 61; monthly case counts were consistently higher than this average during the fourth quarter of 2012 and first quarter of 2013 (Figure 2). Of the 731 GC cases reported in 2012, 229 (31%) were reported during the last quarter of the year; 235 cases were reported during the first quarter of 2013.

Figure 1. Gonococcal Infection Rates by Year — Alaska and the United States, 2003–2012*



*The 2012 U.S. GC infection rate is preliminary.

Figure 2. Gonorrhea Case Reports by Month — Alaska, January 2012 to March 2013



Testing Multiple Anatomic Sites

Of the 966 GC cases reported in 2012 and the first quarter of 2013, 404 (42%) were reported by ASPHL. Of the 404 ASPHL cases, 29 (7%) were in patients who had clinical specimens submitted from more than one anatomic site. Of these 29 patients, 25 were male. Of the 25 males, 18 (72%) had negative GC urine tests but positive oropharyngeal or rectal tests. Of the

four females, one (25%) had a negative GC urine test but a positive oropharyngeal test.

Discussion

In 2012, Alaska's overall GC incidence rate dropped by 28% compared to 2011. This dramatic decline in GC incidence is likely due to a number of factors, including increased community/provider awareness through educational outreach efforts, disease intervention services, and expedited partner therapy (EPT). While Alaska's GC epidemic has slowed down considerably over the past 2 years, monthly case counts began to rise during the last quarter of 2012—a concerning trend that has continued into the first quarter of 2013 (Figure 2). These data indicate that Alaska's GC epidemic is not over yet.

One important challenge in controlling GC outbreaks is that some patients have non-genital GC infections—many of which are asymptomatic—that go undetected because clinicians are only testing urine or urethral sites. The rectum and pharynx are the most common sites of GC and CT infection in men who have sex with men (MSM). These infections are often asymptomatic and typically occur without concomitant urethral infection.³ The ASPHL data reported here indicate that 75% of males and 25% of females who were tested for GC from multiple anatomic sites had negative urine tests during 2012 and the first quarter of 2013, but had positive oropharyngeal or rectal specimens.

Recommendations

- Health care providers should elicit information regarding same-sex and oral/anal sexual activities when taking sexual histories from STD patients.
- Screen MSM as follows:
 - Annually, screen sexually active MSM for HIV, syphilis, GC, and CT;
 - Obtain rectal and/or pharyngeal specimens, as appropriate, for GC and CT; and
 - At 3–6 month intervals, screen for GC, CT, and HIV in MSM who report having anonymous or multiple sexual partners.
- Health care providers should promptly treat GC-infected patients and their sex partner(s) with the following:
 - Ceftriaxone 250 mg IM in a single dose, **AND** azithromycin 1 g PO in a single dose;
 - Alternative regimens are allowable if ceftriaxone is not available.²
- Test all GC-infected persons for other STDs, including HIV.
- Encourage patients with GC infection to participate in partner notification services.
- Consider EPT for partners who are unable or unwilling to present for clinical evaluation; EPT scripts can be filled at the Great Land Infusion Pharmacy (phone: 907-561-2421; toll-free phone: 877-561-2421; fax: (907) 868-5113).⁵
- Report suspected cephalosporin treatment failure immediately to SOE for advice regarding re-treatment and GC resistance testing.
- Report confirmed or suspected cases of GC infection and treatment to SOE within 5 working days via fax (907-561-4239) or telephone (907-561-4234 or 800-478-1700). STD/HIV reporting forms can be found at: www.epi.alaska.gov/pubs/conditions/frmSTD.pdf

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