



Date: December 24, 2019

To: CAHAN San Diego Participants

From: HIV, STD and Hepatitis Branch, Public Health Services

Health Advisory: National Increase in Disseminated Gonococcal Infection Cases

This health advisory informs local providers of increasing national reports of disseminated gonococcal infection (DGI). Recommendations and resources are provided for diagnosis, management, and reporting.

Key Messages

- National reports of DGI, an infrequent, but serious, complication of gonorrhea, are increasing. In San Diego, gonorrhea cases are also increasing.
- Providers should keep DGI in the differential diagnosis in sexually active patients who present with compatible clinical syndromes, such as septic arthritis, polyarthralgia, tenosynovitis, suggestive skin lesions, endocarditis, or meningitis.
- Patients with suspected DGI should be tested for *N. gonorrhoeae* at urogenital, rectal, and pharyngeal sites using nucleic acid amplification testing (NAAT) and culture and at disseminated sites using culture.
- Report all cases of DGI to the HIV, STD, and Hepatitis Branch within one working day.
- Submit all *N. gonorrhoeae* culture isolates in DGI cases to the San Diego Public Health Laboratory (SDCPHL).

Situation

The Centers for Disease Control and Prevention (CDC) has received [increasing reports of DGI](#) and currently is investigating a cluster of DGI cases in Michigan that has been associated with amphetamine and some opioid use. The incidence of DGI in the U.S. is unknown, as this infrequent, but well-described, complication of *N. gonorrhoeae* infection is likely underdiagnosed and underreported.

In 2019 to date, five cases of confirmed DGI (i.e., infections that are associated with a positive lab test from a disseminated site) have been reported in San Diego County, which is stable compared to previous years. There are likely more cases that were clinical diagnoses and not reported as DGI, making this an underestimate of the true incidence of DGI in the region.

Since 2009, reported cases of gonorrhea have [steadily increased](#). In 2018, a total of 6,200 cases of gonorrhea were reported in San Diego County, with a rate of 185.8 cases per 100,000 population. This represents more than triple the rate of 60.1 cases per 100,000 in 2009. As gonorrhea rates continue to rise, so does the likelihood of DGI.

Background

DGI occurs when *N. gonorrhoeae* invades the bloodstream and reaches distant body sites. Typical clinical manifestations of DGI include septic arthritis, polyarthralgia, tenosynovitis, petechial or pustular skin lesions (typically

in the distal extremities), and bacteremia. Rarely, endocarditis or meningitis can occur. Cultures from disseminated sites of infection (e.g., skin, synovial fluid, blood, cerebrospinal fluid (CSF)) are often negative. Cultures and NAAT from mucosal sites of infection (e.g., urogenital, rectal, or pharyngeal) have higher diagnostic yield but often are not performed, since patients may be asymptomatic at these sites.

DGI is often based on clinical diagnosis and is likely underreported. Hospitalization and consultation with an infectious disease specialist are recommended for [DGI treatment](#), and parenteral antibiotics are required during early therapy for arthritis and arthritis-dermatitis syndrome and for the entire duration of therapy for meningitis and endocarditis.

Recommendations for Healthcare Providers

- Consider DGI for any sexually active patient who presents with septic arthritis, polyarthralgia, tenosynovitis, suggestive skin lesions, endocarditis, or meningitis.
- If there is clinical suspicion for DGI:
 - Obtain and process urogenital and extragenital (i.e., rectal and/or pharyngeal) specimens for NAAT and culture for *N. gonorrhoeae*.
 - Obtain and process specimens from disseminated sites (e.g., skin, synovial fluid, blood, CSF) for culture for *N. gonorrhoeae*.
 - Obtain specimens for testing before initiating antimicrobial therapy, if possible.
- Treat suspected and confirmed DGI cases according to [CDC guidelines](#), preferably in a hospital setting and in consultation with an infectious disease specialist.
- Report suspected and confirmed DGI cases to the HIV, STD, and Hepatitis Branch within one working day by faxing a [Confidential Morbidity Report](#) to (619) 692-8541.
 - Indicate “disseminated gonococcal infection” or “DGI” as the disease being reported.
 - Laboratory reporting of positive tests for gonorrhea does not fulfill the separate legal requirement for clinicians to report gonococcal infections to local public health jurisdictions in California.
- Submit all culture isolates from urogenital, extragenital, and disseminated sites in DGI cases to [SDCPHL](#).
 - Please notify them and obtain required submission forms by calling (619) 692-8500 (select option 1) or by emailing phslaboratory.hhsa@sdcounty.ca.gov.
 - SDCPHL will submit the isolates to CDC for further testing.
- Test all patients with DGI for the human immunodeficiency virus (HIV), unless they are already known to be living with HIV, as well as syphilis and chlamydia.
 - Laboratory support for supplemental testing is available through SDCPHL if needed.

Resources

- 2015 CDC STD Treatment Guidelines, “Gonococcal Infections”: <https://www.cdc.gov/std/tg2015/gonorrhoea.htm>
- Guidance for obtaining a sexual history is available on the CDC Division of STD Prevention resource page: <https://www.cdc.gov/std/treatment/resources.htm>
- San Diego County STD Clinical Consultation Phone Line: (619) 609-3245
- National Network of STD Clinical Prevention Training Centers STD Clinical Consultation Network <https://www.stdccn.org/>
- Recommendations for Laboratory-Based Detection of *C. trachomatis* and *N. gonorrhoeae* – 2014 <https://www.cdc.gov/std/laboratory/2014labrec/default.htm>
- National STD Curriculum <https://www.std.uw.edu/>
- STD Prevention Resources https://www.cdc.gov/std/publications/STDPreventionResources_WEB.pdf

Thank you for your continued participation.

CAHAN San Diego

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