

CDC HEALTH ALERT FOR DISSEMINATED GONOCOCCAL INFECTION

SUMMARY

- DGI occurs when the sexually transmitted pathogen *Neisseria gonorrhoeae* invades the bloodstream and spreads to distant sites in the body, leading to clinical findings such as septic arthritis, polyarthralgia, tenosynovitis, petechial/pustular skin lesions, bacteremia, or, on rare occasions, endocarditis or meningitis.
- If there is clinical suspicion for DGI, nucleic acid amplification test (NAAT) and culture specimens from urogenital and extragenital (e.g., pharyngeal and rectal) mucosal site(s), as applicable, should be collected and processed, in addition to NAAT and culture specimens from disseminated sites of infection (e.g., skin, synovial fluid, blood, or cerebrospinal fluid [CSF]).
- Management of DGI cases should be guided by the [CDC STD Treatment Guidelines](#). Hospitalization and consultation with an infectious disease specialist are recommended for initial therapy.
- Providers should instruct patients to refer sex partners with whom they have had sexual contact in the past 60 days for evaluation, testing, and presumptive treatment for *N. gonorrhoeae*.
- Report all laboratory confirmed and clinically suspected cases of DGI to the State health department within 24 hours of identification. <https://redcap.vdh.virginia.gov/redcap/surveys/?s=NYKYR7W47M>
- All *N. gonorrhoeae* isolates in DGI cases should be tested for antimicrobial susceptibility, which requires culture. Please contact your local health department for guidance and approval to send specimens for additional testing.

BACKGROUND

DGI occurs when the sexually transmitted pathogen *Neisseria gonorrhoeae* invades the bloodstream and spreads to distant sites in the body, leading to clinical manifestations such as septic arthritis, polyarthralgia, tenosynovitis, petechial/pustular skin lesions, bacteremia, or, on rare occasions, endocarditis or meningitis. DGI is uncommon and thought to occur in 0.5-3% of untreated gonorrhea cases. Cultures from disseminated sites of infection are often negative and mucosal sites of infection (e.g. urogenital, rectal, or pharyngeal) are often asymptomatic and not tested before empiric antimicrobial treatment is started despite having a higher diagnostic yield. As a result, DGI is usually a clinical diagnosis without microbiologic confirmation, which likely contributes to underdiagnosis and treatment delays.

RECOMMENDATIONS

If there is clinical suspicion for DGI, NAAT and culture specimens from urogenital and extragenital mucosal site(s), as applicable, should be collected and processed, in addition to NAAT and culture specimens from disseminated sites of infection (e.g., skin, synovial fluid, blood, or CSF). All *N. gonorrhoeae* isolates in DGI cases should be tested for antimicrobial susceptibility, which requires culture.

Obtaining a behavioral risk assessment, including a nonjudgmental sexual history, providing STD/HIV prevention counseling, and appropriately treating patients and their sex partners are all necessary to interrupt disease transmission. Management of DGI cases should be guided by the [CDC STD Treatment Guidelines](#). Hospitalization and consultation with an infectious disease specialist are recommended for initial therapy.

Clinical consultation for DGI management is available through the [STD Clinical Consultation Network](#).

CDC is interested in receiving all clinical isolates from DGI cases for additional testing. Please work with your laboratory facility to ensure all available isolates from DGI cases are not discarded.

RESOURCES

NOTE: Include case report forms, specimen requisition forms, and additional information on your website.

- 2015 CDC STD Treatment Guidelines, "Gonococcal Infections":
<https://www.cdc.gov/std/tg2015/gonorrhea.htm>
 - The STD Treatment (Tx) Guidelines mobile app is free and available for [Apple devices](#) and [Android devices](#)
- 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>
- National Network of STD Clinical Prevention Training Centers STD Clinical Consultation Network
<https://www.stdccn.org/>
- Recommendations for the 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

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