Disseminated Gonococcal Infection Case Reporting

CDC has received increasing reports of disseminated gonococcal infection (DGI), an uncommon, but severe, complication of untreated gonorrhea. The CDC DGI Case Report Form and REDCap Survey can be used by state and local health departments to collect the detailed epidemiologic, clinical, and behavioral data elements we need to better understand and characterize DGI cases nationally. Follow the instructions below to voluntarily share existing and available epidemiological and clinical DGI case information with CDC. The submission of all data elements is not required. Keep a record of the REDCap ID with your local case ID so you can modify the form if any additions or changes are needed. **Please note that this form/tool does not replace the National Notifiable Diseases Surveillance System (NNDSS) case notification process.** Effective January 2023, the national case definition for gonorrhea was updated to distinguish between DGI and non-DGI cases. Gonorrhea case notifications provided to CDC's NNDSS via HL7 standards in the STD Message Mapping Guide should indicate if the case was identified as DGI.

DGI Case Report Form (Version 2 September 2023) Instructions

Please contact your state health department to discuss the DGI case report submission process before submitting to CDC; state health departments may prefer to receive DGI reports from local jurisdictions and submit to CDC directly.

Note: This form is for your records. To share information on a DGI case, the information in this form should be entered into the REDCap Survey.

Information Needed to Compete Form

- Medical record reviews
- Provider interviews
- Partner service investigations
- Information from various staff (e.g., surveillance, DIS)

DGI Case Classification Definitions Used in Form (CSTE gonorrhea position statement)

- **Verified:** Isolation or detection of *Neisseria gonorrhoeae* from a disseminated site of infection (e.g., skin, synovial fluid, blood, or cerebrospinal fluid [CSF]) by culture or nucleic acid amplification test (NAAT).
- **Likely:** In the absence of a more likely diagnosis, clinical suspicion of DGI AND isolation or detection of *N. gonorrhoeae* from a mucosal site of infection by culture or NAAT.

REDCap Survey Instructions

The information in the DGI Case Report Form should be entered into a REDCap survey behind the SAMS firewall. REDCap will assign a unique ID to each case entered. Please keep a record of the REDCap ID with the corresponding case report form. Each page of the DGI Case Report Form has a box to record the REDCap ID. The REDCap form includes skip patterns so some questions on the form may not be applicable to every case.

To upload information in REDCap:

Request Direct Access to the REDCap Survey

1. If someone at your agency already has access to REDCap behind the SAMS firewall (i.e., congenital syphilis form submission), they can request access to the DGI project by emailing their REDCap ID (a 5-6 digit number) to CDC.
2. If someone at your agency has SAMS access but not access to REDCap, they can email CDC to request access.
3. If no one at your agency has SAMS access, please contact CDC to discuss a secure way to transfer the completed DGI Case Report Form and to receive a REDCap case ID for your record.

If you have any questions, please feel free to reach out to us for assistance.

Sincerely,

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Disseminated Gonococcal Infection Case Report Form (Version 2 September 2023)

REDCap Case ID (Generated by REDCap): ______________________________

REPORTER INFORMATION

Date Form Completed (MM/DD/YYYY): ____________

Name of Person Completing Form: ______________________________ Phone No: ____________

Agency: ______________________________ Email: ____________

CASE INFORMATION

1a. Was case sent to CDC's NNDSS as a gonorrhea case?

☐ Yes (Answer 1b)
☐ No
☐ Unknown

1b. If yes, was the case sent via: ☐ NETSS ☐ MMG

If case sent via NETSS:

State: ____________
MMWR Year: ____________
Case Report ID: ____________
Site Code: ____________

If case sent via MMG:

National Reporting Jurisdiction (77968-6): ____________
Local record ID (N/A: OBR-3): ____________

2. How was this case identified? (Check all that apply):

☐ Provider report
☐ Laboratory report
☐ Other, specify ____________

3. Case classification* for disseminated infection:

☐ Verified
☐ Likely

***Case Classification**

Verified: Isolation or detection of *Neisseria gonorrhoeae* from a disseminated site of infection (e.g., skin, synovial fluid, blood, or cerebrospinal fluid [CSF]) by culture or nucleic acid amplification test (NAAT)

Likely: In absence of a more likely diagnosis, clinical suspicion of DGI AND isolation or detection of *N. gonorrhoeae* from a mucosal site by culture or NAAT

4. Date first reported to health department:

(MM/DD/YYYY): ____________

CASE INFORMATION: DEMOGRAPHIC INFORMATION

1. State of Residence

____
☐ Not a US resident
☐ Unknown

2. County of Residence:

____
☐ Not applicable
☐ Unknown

3. Age (In years):

________ ☐ Unknown

4. Sex Assigned at Birth:

☐ Male
☐ Female
☐ Unknown

5. Current Gender:

☐ Male gender
☐ Female gender
☐ Transgender male
☐ Transgender female
☐ Gender diverse or non-binary
☐ Other gender identity
☐ Unknown

6. Race (Check all that apply):

☐ White
☐ Black
☐ American Indian or Alaska Native
☐ Native Hawaiian or Other Pacific Islander
☐ Asian
☐ Other race
☐ Unknown

7. Hispanic Ethnicity:

☐ Hispanic or Latino
☐ Not Hispanic or Latino
☐ Unknown

CASE INFORMATION: PREGNANCY STATUS

1. At time of DGI diagnosis, patient was:

☐ Pregnant (Answer 2, 3)
☐ Postpartum* (Answer 2, 3)
☐ Neither
☐ Unknown

2a. If pregnant or postpartum, what is the estimated due date?

(MM/DD/YYYY): ____________

**Postpartum = up to one year*

2b. If pregnant or postpartum, what is the date of the pregnancy outcome?

(MM/DD/YYYY):

____

3a. If pregnant or postpartum, what was the outcome of the fetus?

☐ Live birth, no apparent illness
☐ Live birth, clinical infection with *N. gonorrhoeae* (Answer 3b)
☐ Live birth with neonatal death before 30 days
☐ Still birth (Gestational age ≥ 20 weeks)
☐ Spontaneous abortion/miscarriage (Gestational age < 20 weeks)
☐ Termination
☐ Still pregnant
☐ Unknown

3b. If live birth with clinical infection with *N. gonorrhoeae*, what were the signs/symptoms?

Signs/Symptoms: ______________________________

PAST MEDICAL HISTORY (Check all that apply; include ANY known past medical history ever during lifetime)

1. Condition/Diagnosis	Yes / No / Unknown	
Complement deficiency	☐ Yes ☐ No ☐ Unknown	
Previous disseminated gonococcal infection (DGI)	☐ Yes ☐ No ☐ Unknown	
Previous meningococcal infection	☐ Yes ☐ No ☐ Unknown	
HIV infection	☐ Yes ☐ No ☐ Unknown	
Atypical hemolytic uremic syndrome (aHUS)	☐ Yes ☐ No ☐ Unknown	
Generalized myasthenia gravis (GMG)	☐ Yes ☐ No ☐ Unknown	
Paroxysmal nocturnal hemoglobinuria (PNH)	☐ Yes ☐ No ☐ Unknown	
Immunosuppressive therapy (e.g. steroids, chemotherapy, radiation)	☐ Yes ☐ No ☐ Unknown	
Systemic lupus erythematosus (SLE)	☐ Yes ☐ No ☐ Unknown	
Diabetes mellitus	☐ Yes ☐ No ☐ Unknown	
Hepatitis C infection	☐ Yes ☐ No ☐ Unknown	
Hepatitis B infection	☐ Yes ☐ No ☐ Unknown	
Malignancy	☐ Yes ☐ No ☐ Unknown	If yes, specify ____________
Other	☐ Yes ☐ No ☐ Unknown	If yes, specify ____________

PAST MEDICAL HISTORY CONTINUED | **REDCap ID:**______________________

2a. Did the patient receive any antibiotics in the 1 month prior to the current DGI diagnosis? ☐ Yes (Answer 2b) ☐ No ☐ Unknown

2b. If yes:

Antibiotic	Dose (mg)	Route (IV, IM, PO)	Frequency (Every ___ hours)	Duration (Days)	Date Started (MM/DD/YYYY)

3a. Prior to this gonococcal infection, did the patient receive or have history of receiving the medication Eculizumab (or other biologic agents that inhibit the complement cascade)? ☐ Yes (Answer 3b) ☐ No ☐ Unknown

3b. If yes:

If not receiving Eculizumab, what complement-inhibiting biologic agent did the patient receive? ______________________________

What was the date of the last dose in which Eculizumab (or other complement-inhibiting biologic agent) was administered (MM/DD/YYYY)? ____________________

Did the patient receive antibiotic prophylaxis as a result of the receipt of this medication? ☐ Yes ☐ No ☐ Unknown

If yes, please specify which antibiotic (name and dose) they received? ______________________________

DGI CLINICAL COURSE: UROGENITAL, PHARYNGEAL, AND RECTAL SYMPTOMS

1a. Was the patient experiencing symptoms of urogenital, pharyngeal, or rectal gonorrhea at the time of or within a month prior to DGI presentation?

☐ Yes (Answer 1b) ☐ No ☐ Unknown

1b. If yes, when did the patient first seek medical care for the symptoms of urogenital, pharyngeal, or rectal gonococcal infection (MM/DD/YYYY)? ________________________

Symptom	Yes / No / Unknown	Date of Onset (MM/DD/YYYY)
Penile/Vaginal discharge	☐ Yes ☐ No ☐ Unknown	
Dysuria	☐ Yes ☐ No ☐ Unknown	
Sore throat	☐ Yes ☐ No ☐ Unknown	
Rectal bleeding, discharge, and/or pain	☐ Yes ☐ No ☐ Unknown	
Abdominal or pelvic pain	☐ Yes ☐ No ☐ Unknown	
Testicular pain or swelling	☐ Yes ☐ No ☐ Unknown	
Other, specify: ____________________	☐ Yes ☐ No ☐ Unknown	

DGI CLINICAL COURSE: DGI CLINICAL PRESENTATION, MANAGEMENT, AND OUTCOME

1. **When did the patient first develop DGI symptoms (e.g., fever, chills, malaise, rash, joint pain or swelling) (MM/DD/YYYY)?** ___________________________
2. **When did the patient first seek medical care for the DGI symptoms (MM/DD/YYYY)?** ___________________________
3. **In what types of medical facilities was the patient evaluated or treated for DGI symptoms, even if a diagnosis was not made (Check all that apply)?**

☐ Emergency Department
☐ Urgent care clinic
☐ Primary care clinic (e.g., Family Practice, Internal Medicine, Pediatrics)
☐ STD specialty clinic
☐ Other specialty clinic (e.g., Sports Medicine/Orthopedics, Rheumatology, Infectious Diseases, OB/GYN)
☐ Inpatient hospital service(s)
☐ Other, specify: ______________________________
☐ Unknown

4a. Clinical Manifestations of DGI (Check all that apply):

☐ Fever
☐ Bacteremia
☐ Endocarditis
☐ Hepatitis
☐ Meningitis
☐ Myocarditis
☐ Skin lesions; if yes, please describe: ______________________________
☐ Polyarthralgia
☐ Septic arthritis
☐ Tenosynovitis
☐ Osteomyelitis
☐ Other, specify ______________________________
☐ Unknown

4b. If the patient was diagnosed with septic arthritis, what anatomic sites were involved? (Check all that apply)

☐ Knee ☐ Ankle
☐ Wrist ☐ Spine
☐ Other, please specify: ______________________________
☐ Unknown

4c. If the patient was diagnosed with osteomyelitis, what anatomic sites were involved? (Check all that apply)

☐ Knee ☐ Ankle
☐ Wrist ☐ Spine
☐ Other, please specify: ______________________________
☐ Unknown

5a. Was the patient admitted to a hospital for DGI management (i.e., hospitalized as inpatient)?

☐ Yes (Answer 5b)
☐ No
☐ Unknown

5b. If yes:

Total Number of Days Hospitalized ______________

6a. Did the patient have any procedures (inpatient or outpatient) related to DGI?
☐ Yes (Answer 6b) ☐ No ☐ Unknown

6b. If yes, check all that apply:

☐ Joint aspiration
☐ Lumbar puncture
☐ Skin biopsy
☐ Transesophageal echocardiogram
☐ Joint washout, debridement, or operative incision and drainage
☐ Heart valve replacement surgery
☐ Other

If other, please describe: ______________________________

DGI CLINICAL COURSE: DGI CLINICAL PRESENTATION, MANAGEMENT, AND OUTCOME CONTINUED

REDCap ID:____________________

7a. What was the clinical outcome of the DGI case? ☐ Survived ☐ Died ☐ Unknown

7b. If the patient died, what was the cause(s) of death:______________________________

7c. Date of Death (MM/DD/YYYY): ____________________

DGI TREATMENT (*After* DGI diagnosis was made)

Medication	Dose (mg)	Route (IV, IM, PO)	Frequency (Every ___ hours)	Duration (Days)	Date Started (MM/DD/YYYY)
1a. Ceftriaxone					
1b. Cefixime					

1c. During the clinical course, did the patient receive additional antimicrobial treatment not already described above? ☐ No ☐ Yes ☐ Unknown

If yes, which antimicrobials? (Check all that apply)	Duration of treatment (days)	Date started (MM/DD/YYYY)
☐ Vancomycin IV		
☐ Piperacillin/tazobactam (Zosyn)		
☐ Cefepime		
☐ Meropenem		
☐ Doxycycline (IV or PO)		
☐ Ciprofloxacin (IV or PO)		
☐ Amoxicillin/clavulanic acid (Augmentin)		
☐ Other, please specify: ____________________		
☐ Unknown		

2a. Did the patient complete the prescribed treatment for DGI? ☐ No ☐ Yes ☐ Unknown

2b. If no: why was the prescribed treatment not completed?

☐ Patient left against medical advice
☐ Patient was discharged before diagnosis was received
☐ Other reason, specify ______________________________
☐ Unknown

LABORATORY RESULTS (*Use a separate line for each specimen tested*)

Was *N. gonorrhoeae* testing performed at *disseminated sites* of infection during the current DGI presentation? ☐ Yes (Complete table) ☐ No ☐ Unknown

Date of Specimen Collection (MM/DD/YYYY)	Specimen Type (Select one)	Diagnostic Test Type (Select one)	Result (Select one)
____________	☐ Blood ☐ Skin lesion ☐ Synovial fluid ☐ Other, specify: ________ ☐ CSF* ☐ Unknown	☐ NAAT* ☐ Culture ☐ Other, specify: ________ ☐ Unknown	☐ Positive ☐ Negative ☐ Indeterminant ☐ Unknown
____________	☐ Blood ☐ Skin lesion ☐ Synovial fluid ☐ Other, specify: ________ ☐ CSF* ☐ Unknown	☐ NAAT* ☐ Culture ☐ Other, specify: ________ ☐ Unknown	☐ Positive ☐ Negative ☐ Indeterminant ☐ Unknown
____________	☐ Blood ☐ Skin lesion ☐ Synovial fluid ☐ Other, specify: ________ ☐ CSF* ☐ Unknown	☐ NAAT* ☐ Culture ☐ Other, specify: ________ ☐ Unknown	☐ Positive ☐ Negative ☐ Indeterminant ☐ Unknown

Please provide details for any other *N. gonorrhoeae* testing performed at *disseminated sites* of infection.

**CSF=cerebrospinal fluid; NAAT=nucleic acid amplification test*

LABORATORY RESULTS (Use a separate line for each specimen tested)

REDCap ID: ____________________

Was *N. gonorrhoeae* testing performed at urogenital, pharyngeal, and rectal sites in the 3 months prior to or associated with the current DGI presentation/diagnosis?

☐ Yes (Complete table) ☐ No ☐ Unknown

Date of Specimen Collection (MM/DD/YYYY)	Specimen Type (Select one)		Diagnostic Test Type (Select one)	Result (Select one)
	☐ Urine	☐ Pharyngeal	☐ NAAT*	☐ Positive
	☐ Endocervical	☐ Rectal	☐ Culture	☐ Negative
________________	☐ Vaginal	☐ Other, specify: ________________	☐ Other, specify: ______________	☐ Indeterminant
	☐ Urethral	☐ Unknown	☐ Unknown	☐ Unknown
	☐ Urine	☐ Pharyngeal	☐ NAAT*	☐ Positive
	☐ Endocervical	☐ Rectal	☐ Culture	☐ Negative
________________	☐ Vaginal	☐ Other, specify: ________________	☐ Other, specify: ______________	☐ Indeterminant
	☐ Urethral	☐ Unknown	☐ Unknown	☐ Unknown
	☐ Urine	☐ Pharyngeal	☐ NAAT*	☐ Positive
	☐ Endocervical	☐ Rectal	☐ Culture	☐ Negative
________________	☐ Vaginal	☐ Other, specify: ________________	☐ Other, specify: ______________	☐ Indeterminant
	☐ Urethral	☐ Unknown	☐ Unknown	☐ Unknown

Please include any additional *N. gonorrhoeae* testing performed at urogenital, pharyngeal and rectal sites in the 3 months prior to and including the current DGI presentation.

** NAAT=nucleic acid amplification test*

Were any available *N. gonorrhoeae* isolates sent to CDC for further testing? ☐ Yes ☐ No ☐ Unknown

If yes: what was the date of shipment to CDC? (MM/DD/YYYY) ________________

ADDITONAL COMMENTS (e.g., additional patient history, clinical course, etc.):

FOR CDC USE ONLY: CDC LRRB Assigned ID: ____________________________

BEHAVIORAL AND PARTNER INFORMATION (Collected from medical chart review and/or patient interview)

1. Gender of sex partners in the past 12 months (Check all that apply):

☐ Male ☐ Female ☐ Transgender male ☐ Transgender female ☐ Gender diverse or non-binary ☐ Other gender identity ☐ Unknown

2. Exchanged money, food/lodging, or drugs for sex in the past 12 months: ☐ Yes ☐ No ☐ Unknown

3. Homelessness (e.g., living on the street, in a shelter/a single-room occupancy hotel, in a car) at any time during the past 12 months:

☐ Yes ☐ No ☐ Unknown

4. Incarcerated in the past 12 months: ☐ Yes ☐ No ☐ Unknown

5. Reports using the drug in the past 12 months (or positive drug test)

Drug		If used in past 12 months, was it injected?
5a. Methamphetamine	☐ Yes ☐ No ☐ Don't know	☐ Yes ☐ No ☐ Don't know
5b. Heroin	☐ Yes ☐ No ☐ Don't know	☐ Yes ☐ No ☐ Don't know
5c. Other opioid, excluding prescription painkillers	☐ Yes ☐ No ☐ Don't know	☐ Yes ☐ No ☐ Don't know
5d. Prescription painkillers	☐ Yes ☐ No ☐ Don't know	☐ Yes ☐ No ☐ Don't know
5e. Cocaine/Crack	☐ Yes ☐ No ☐ Don't know	☐ Yes ☐ No ☐ Don't know
5f. Other:______________________________	☐ Yes ☐ No ☐ Don't know	☐ Yes ☐ No ☐ Don't know

BEHAVIORAL AND PARTNER INFORMATION: PARTNER SERVICES INFORMATION (Using a 60-day interview period) | **REDCap ID:** ____________________

6a. Was the patient interviewed by a Disease Intervention Specialist (DIS) or other public health staff? ☐ Yes (Answer 6b) ☐ No ☐ Unknown

If yes:

6b. Did the patient report any sex or needle sharing partners or associates: ☐ Yes ☐ No ☐ Unknown

If partner information available, complete the table below.

Partner	Partner Gender (Select one)	Partner Type (Select one)	Locating Information Provided (Select one)	Interview Performed (Select one)	Gonorrhea Case (Select one)	DGI Case (Select one)	Isolate Sent to CDC for Additional Testing (Select one)
________	☐ Male ☐ Female ☐ Transgender Male ☐ Transgender Female ☐ Gender diverse or non-binary ☐ Other gender identity ☐ Unknown	☐ Sex ☐ Needle sharing ☐ Sex *AND* needle sharing ☐ Associate	☐ Yes ☐ No ☐ Unknown	☐ Yes ☐ No ☐ Unknown	☐ Yes ☐ No ☐ Unknown	☐ Yes ☐ No ☐ Unknown	☐ Yes ☐ No ☐ Unknown
________	☐ Male ☐ Female ☐ Transgender Male ☐ Transgender Female ☐ Gender diverse or non-binary ☐ Other gender identity ☐ Unknown	☐ Sex ☐ Needle sharing ☐ Sex *AND* needle sharing ☐ Associate	☐ Yes ☐ No ☐ Unknown	☐ Yes ☐ No ☐ Unknown	☐ Yes ☐ No ☐ Unknown	☐ Yes ☐ No ☐ Unknown	☐ Yes ☐ No ☐ Unknown
________	☐ Male ☐ Female ☐ Transgender Male ☐ Transgender Female ☐ Gender diverse or non-binary ☐ Other gender identity ☐ Unknown	☐ Sex ☐ Needle sharing ☐ Sex *AND* needle sharing ☐ Associate	☐ Yes ☐ No ☐ Unknown	☐ Yes ☐ No ☐ Unknown	☐ Yes ☐ No ☐ Unknown	☐ Yes ☐ No ☐ Unknown	☐ Yes ☐ No ☐ Unknown
________	☐ Male ☐ Female ☐ Transgender Male ☐ Transgender Female ☐ Gender diverse or non-binary ☐ Other gender identity ☐ Unknown	☐ Sex ☐ Needle sharing ☐ Sex *AND* needle sharing ☐ Associate	☐ Yes ☐ No ☐ Unknown	☐ Yes ☐ No ☐ Unknown	☐ Yes ☐ No ☐ Unknown	☐ Yes ☐ No ☐ Unknown	☐ Yes ☐ No ☐ Unknown
________	☐ Male ☐ Female ☐ Transgender Male ☐ Transgender Female ☐ Gender diverse or non-binary ☐ Other gender identity ☐ Unknown	☐ Sex ☐ Needle sharing ☐ Sex *AND* needle sharing ☐ Associate	☐ Yes ☐ No ☐ Unknown	☐ Yes ☐ No ☐ Unknown	☐ Yes ☐ No ☐ Unknown	☐ Yes ☐ No ☐ Unknown	☐ Yes ☐ No ☐ Unknown
________	☐ Male ☐ Female ☐ Transgender Male ☐ Transgender Female ☐ Gender diverse or non-binary ☐ Other gender identity ☐ Unknown	☐ Sex ☐ Needle sharing ☐ Sex *AND* needle sharing ☐ Associate	☐ Yes ☐ No ☐ Unknown	☐ Yes ☐ No ☐ Unknown	☐ Yes ☐ No ☐ Unknown	☐ Yes ☐ No ☐ Unknown	☐ Yes ☐ No ☐ Unknown

Include information on any additional partners.

FOR CDC USE ONLY

If partner isolate was sent to CDC for additional testing:

CDC LRRB Assigned ID: ________________________