Disseminated Gonococcal Infection Case Reporting

CDC has received increasing reports of disseminated gonococcal infection (DGI), an uncommon, but severe, complication of untreated gonorrhea. CDC has created the DGI Case Report Form and REDCap Survey, which state and local health departments may use to collect the critical 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.

DGI Case Report Form (Version 1 March 2020) Instructions

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 or the completed form may be sent securely to CDC. The REDCap form includes skip patterns so some questions on the form may not be applicable to every case.

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

- **Confirmed**: Isolation of *Neisseria gonorrhoeae* from a **disseminated site** of infection (e.g., skin, synovial fluid, blood, or cerebrospinal fluid [CSF]) by culture
- **Probable**: Clinical manifestations of DGI AND isolation or detection of *N. gonorrhoeae* from a **mucosal site** by culture or nucleic acid amplification test (NAAT)
- **Suspect**: In the absence of a more likely diagnosis, **clinical suspicion** of DGI without isolation or detection of *N. gonorrhoeae* from any anatomic site

REDCap Survey Instructions

The information in the DGI Case Report Form should be entered into a REDCap survey behind the SAMS firewall. There are two ways to upload information in REDCap.

1. **Request Direct Access to the REDCap Survey**
   If someone at your agency has access to SAMS they can request access to the REDCap tool by emailing Alison Ridpath or Laura Quilter. 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.

2. **Secure Form Transfer with Assigned REDCap Case ID**
   If no one at your agency has SAMS access, please contact Alison Ridpath or Laura Quilter 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,

Alison Ridpath MD, MPH
LCDR, US Public Health Service
Medical Officer
Epidemiology and Statistics Branch
DSTDP/NCHHSTP/CDC
Tel. 770-488-3685
Email: etf4@cdc.gov

Laura Quilter MD, MPH
LCDR, US Public Health Service
Medical Officer
Clinical Team
DSTDP/NCHHSTP/CDC
Tel. 404-718-6917
Email: nrb2@cdc.gov

Disseminated Gonococcal Infection Case Report Form (Version 1 March 2020)

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 reported as a gonorrhea case to CDC?
- ☐ 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 subject ID (INV168 in OBR-3): _____

2. How was this case identified? (Check all that apply):
- ☐ Provider report
- ☐ Laboratory report
- ☐ Other, specify _____

3. Case status for disseminated infection (See Case Classifications on page 1):
- ☐ Confirmed
- ☐ Probable
- ☐ Suspect
- ☐ Unknown

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
- ☐ Female
- ☐ Female-to-male transgender (FTM)
- ☐ Male-to-female transgender (MTF)
- ☐ 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 (Complete ONLY if sex assigned at birth is female)

1a. At time of DGI diagnosis, patient was:
- ☐ Pregnant (Answer 1b, 2, 3)
- ☐ Neither
- ☐ Postpartum (Answer 1b, 2, 3)
- ☐ Unknown

1b. If pregnant or postpartum, what is (was) the due date (delivery date) of the patient:

(MM/DD/YYYY): _____

2. If pregnant what was the gestational age at presentation?

_____ weeks

3a. If pregnant or postpartum, what was the outcome of the fetus?
- ☐ Survived, no apparent illness
- ☐ Survived, 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)
- ☐ Pregnancy Termination
- ☐ Still pregnant
- ☐ Unknown

3b. If survived with clinical infection with *N. gonorrhoeae*, what were the symptoms?

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	
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/EXTRAGENITAL SYMPTOMS

1a. Was the patient experiencing symptoms of urogenital and/or extragenital gonorrhea (e.g., abnormal penile or vaginal discharge, dysuria, rectal bleeding/discharge/pain, abdominal or pelvic pain, sore throat) 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 and/or extragenital 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 1st 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 type of medical facility 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

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

☐ Fever
☐ Bacteremia
☐ Endocarditis
☐ Hepatitis
☐ Meningitis
☐ Myocarditis
☐ Petechial/pustular skin lesions
☐ Polyarthralgia
☐ Septic arthritis
☐ Tenosynovitis
☐ Other, 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 surgeries (inpatient or outpatient) related to DGI?

☐ Yes (Answer 6b) ☐ No ☐ Unknown

6b. If yes, please describe the type and number of surgeries performed below:

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. Azithromycin					

1c. Other: Specify the name, dose (mg), route (IV, IM, PO), frequency (every __ hours), duration (days), and date started for other antibiotics patient was treated with.

2. If patient didn't complete the appropriate/recommended treatment for DGI, was there any documentation as to why treatment wasn't administered/completed?

☐ Yes, patient left against medical advice

☐ Yes, patient left before diagnosis was received

☐ Yes, other reason, specify____

☐ No, no documentation

☐ Not applicable (completed recommended treatment)

☐ 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 ☐ Synovial fluid ☐ CSF*	☐ Skin lesion ☐ Other, specify: __________ ☐ Unknown	☐ NAAT* ☐ Culture ☐ Other, specify: __________ ☐ Unknown	☐ Positive ☐ Negative ☐ Indeterminant ☐ Unknown
______________	☐ Blood ☐ Synovial fluid ☐ CSF*	☐ Skin lesion ☐ Other, specify: __________ ☐ Unknown	☐ NAAT* ☐ Culture ☐ Other, specify: __________ ☐ Unknown	☐ Positive ☐ Negative ☐ Indeterminant ☐ Unknown
______________	☐ Blood ☐ Synovial fluid ☐ CSF*	☐ Skin lesion ☐ Other, specify: __________ ☐ 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 *genital and extra-genital mucosal sites* in the 12 months prior to and including 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)
________________	☐ Urine ☐ Endocervical ☐ Vaginal ☐ Urethral	☐ Pharyngeal ☐ Rectal ☐ Other, specify: _________________ ☐ Unknown	☐ NAAT* ☐ Culture ☐ Other, specify: _____________ ☐ Unknown	☐ Positive ☐ Negative ☐ Indeterminant ☐ Unknown
________________	☐ Urine ☐ Endocervical ☐ Vaginal ☐ Urethral	☐ Pharyngeal ☐ Rectal ☐ Other, specify: _________________ ☐ Unknown	☐ NAAT* ☐ Culture ☐ Other, specify: _____________ ☐ Unknown	☐ Positive ☐ Negative ☐ Indeterminant ☐ Unknown
________________	☐ Urine ☐ Endocervical ☐ Vaginal ☐ Urethral	☐ Pharyngeal ☐ Rectal ☐ Other, specify: _________________ ☐ Unknown	☐ NAAT* ☐ Culture ☐ Other, specify: _____________ ☐ Unknown	☐ Positive ☐ Negative ☐ Indeterminant ☐ Unknown

Please include any additional *N. gonorrhoeae* testing performed at *genital and extra-genital mucosal sites* in the 12 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

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 ☐ Female-to-male transgender (FTM) ☐ Male-to-female transgender (MTF) ☐ 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. Reports using drugs:

Drug	Reports using drug in the past 12 months (or positive drug test)	If used in past 12 months, was it injected?
4a. Methamphetamine	☐ Yes ☐ No ☐ Don't know ☐ Refused	☐ Yes ☐ No ☐ Don't know ☐ Refused
4b. Heroin	☐ Yes ☐ No ☐ Don't know ☐ Refused	☐ Yes ☐ No ☐ Don't know ☐ Refused
4c. Other opioid (includes prescription painkillers)	☐ Yes ☐ No ☐ Don't know ☐ Refused	☐ Yes ☐ No ☐ Don't know ☐ Refused
4d. Cocaine/Crack	☐ Yes ☐ No ☐ Don't know ☐ Refused	☐ Yes ☐ No ☐ Don't know ☐ Refused
4e. Other:______________________________	☐ Yes ☐ No ☐ Don't know ☐ Refused	☐ Yes ☐ No ☐ Don't know ☐ Refused

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

5a. Was the patient interviewed by a Disease Intervention Specialist (DIS) or other public health staff? ☐ Yes (Answer 5b) ☐ No ☐ Unknown

If yes:

5b. 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 ☐ Male-to-female transgender ☐ Female-to-male transgender ☐ 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 ☐ Male-to-female transgender ☐ Female-to-male transgender ☐ 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 ☐ Male-to-female transgender ☐ Female-to-male transgender ☐ 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 ☐ Male-to-female transgender ☐ Female-to-male transgender ☐ 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 ☐ Male-to-female transgender ☐ Female-to-male transgender ☐ 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 ☐ Male-to-female transgender ☐ Female-to-male transgender ☐ 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: ____________________________