

**North Carolina Department of Health and Human Services  
Division of Public Health • Epidemiology Section  
Communicable Disease Branch**



**ATTENTION HEALTH CARE PROVIDERS:**

Please report relevant clinical findings about this disease event to the local health department.

**MENINGOCOCCAL DISEASE, INVASIVE  
Confidential Communicable Disease Report—Part 2  
NC DISEASE CODE: 27**

**REMINDER to Local Health Department staff: If sending this form to the Health Care Provider, remember to attach a cover letter from your agency indicating the part(s) of the form the provider should complete.**

Patient's Last Name	First	Middle	Suffix	Maiden/Other	Alias	Birthdate (mm/dd/yyyy) / /
						SSN

**NC EDSS LAB RESULTS** Verify if lab results for this event are in NC EDSS. If not present, enter results.

Specimen Date	Specimen #	Specimen Source	Type of Test	Test Result(s)	Description (comments)	Result Date	Lab Name— City/State
/ /						/ /	
/ /						/ /	
/ /						/ /	

**NC EDSS PART 2 WIZARD COMMUNICABLE DISEASE**

Is/was patient symptomatic for this disease?  Y  N  U  
 If yes, symptom onset date (mm/dd/yyyy): \_\_\_/\_\_\_/\_\_\_  
 CHECK ALL THAT APPLY:  
 Meningitis  Y  N  U  
 Purpura fulminans  Y  N  U  
 Septicemia/sepsis  Y  N  U  
 Was patient hospitalized for this illness >24 hours?  Y  N  U  
 Hospital name: \_\_\_\_\_  
 City, State: \_\_\_\_\_  
 Hospital contact name: \_\_\_\_\_  
 Telephone: (\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_  
 Admit date (mm/dd/yyyy): \_\_\_/\_\_\_/\_\_\_  
 Discharge date (mm/dd/yyyy): \_\_\_/\_\_\_/\_\_\_  
 Discharge/Final diagnosis: \_\_\_\_\_  
 Notes:

**PREDISPOSING CONDITIONS**

Any immunosuppressive conditions?  Y  N  U  
 Specify \_\_\_\_\_  
 \_\_\_\_\_  
 Did the patient have a respiratory illness in the two weeks before illness onset?  Y  N  U

**TREATMENT**

Were antibiotics taken before culture specimen collected?  Y  N  U  
 Specify culture site \_\_\_\_\_  
 Notes:

**CLINICAL FINDINGS**

Arthritis  Y  N  U  
 Extent  
 One joint  
 Multiple joints  
 Note location: \_\_\_\_\_  
 Type  
 Septic  
 Other, specify: \_\_\_\_\_  
 Skin rash  Y  N  U  
 If yes, onset date (mm/dd/yyyy): \_\_\_\_\_  
 Observed by health care provider?  Y  N  U  
 Location  
 All over the body (Generalized)  
 Localized/Focal  
 If yes, specify location: \_\_\_\_\_  
 Unknown  
 Appearance of rash (choose all that apply)  
 Macular  Petechial  
 Papular  Unknown  
 Osteomyelitis  Y  N  U  
 Cellulitis  Y  N  U  
 Gangrene  Y  N  U  
 Amputation  Y  N  U  
 Conjunctivitis  Y  N  U  
 Did the patient have a chest X ray?  Y  N  U  
 Was the X ray abnormal?  Y  N  U  
 If yes, specify: \_\_\_\_\_  
 Pneumonia  Y  N  U  
 Pericarditis  Y  N  U  
 Bacteremia  Y  N  U  
 If yes, date of positive blood culture (mm/dd/yyyy): \_\_\_\_\_  
 Other, specify: \_\_\_\_\_  
 Other symptoms, signs, clinical findings, or complications consistent with this illness?  Y  N  U  
 If yes, specify: \_\_\_\_\_

Patient's Last Name	First	Middle	Suffix	Maiden/Other	Alias	Birthdate (mm/dd/yyyy) / /
						SSN / /

**TRAVEL/IMMIGRATION**

The patient is:  
 Resident of NC  
 Resident of another state or US territory  
 None of the above

Did patient have a travel history during the 10 days prior to onset of symptoms until 24 hours after start of antibiotics?  Y  N  U

List travel dates and destinations \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Additional travel/residency information:

**CHILD CARE/SCHOOL/COLLEGE**

Patient in child care?  Y  N  U

Name of child care provider: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_  
 Zip code: \_\_\_\_\_ County: \_\_\_\_\_  
 Contact name: \_\_\_\_\_  
 Telephone: \_\_\_\_\_

Patient a child care worker or volunteer in child care?  Y  N  U

Name of child care provider: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_  
 Zip code: \_\_\_\_\_ County: \_\_\_\_\_  
 Contact name: \_\_\_\_\_  
 Telephone: \_\_\_\_\_

Patient a parent or primary caregiver of a child in child care?  Y  N  U

Name of child care provider: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_  
 Zip code: \_\_\_\_\_ County: \_\_\_\_\_  
 Contact name: \_\_\_\_\_  
 Telephone: \_\_\_\_\_

Is patient a student?  Y  N  U

Type of school:  
 NC Public School (preK-12)  
 NC Private School (preK-12)  
 Other School (preK-12)  
 Community College/College/University  
 Other academic institution (i.e. trade school, professional school, etc)

Name: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_  
 Zip code: \_\_\_\_\_ County: \_\_\_\_\_  
 Contact name: \_\_\_\_\_  
 Telephone: \_\_\_\_\_  
 Specify grade: \_\_\_\_\_

Is patient a school WORKER / VOLUNTEER in NC school setting?  Y  N  U

Type of school:  
 NC Public School (preK-12)  
 NC Private School (preK-12)  
 Other School (preK-12)  
 Community College/College/University  
 Other academic institution (i.e. trade school, professional school, etc)

Name: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_  
 Zip code: \_\_\_\_\_ County: \_\_\_\_\_  
 Telephone: \_\_\_\_\_

**CASE INTERVIEWS/INVESTIGATIONS**

Was the patient interviewed?  Y  N  U

Date of interview (mm/dd/yyyy): \_\_\_\_/\_\_\_\_/\_\_\_\_

Were interviews conducted with others?  Y  N  U

Who was interviewed? \_\_\_\_\_

Were health care providers consulted?  Y  N  U

Who was consulted? \_\_\_\_\_

Medical records reviewed (including telephone review with provider/office staff)?  Y  N  U

Specify reason if medical records were not reviewed: \_\_\_\_\_

Notes on medical record verification:

**BEHAVIORAL RISK & CONGREGATE LIVING**

During the 10 days prior to onset of symptoms until 24 hours after start of antibiotics did the patient live in any congregate living facilities (correctional facility, barracks, shelter, commune, boarding school, camp, dormitory/sorority/fraternity)?  Y  N  U

Name of facility: \_\_\_\_\_  
 Dates of contact: \_\_\_\_\_

During the 10 days prior to onset of symptoms until 24 hours after start of antibiotics, did the patient attend social gatherings or crowded settings?  Y  N  U

If yes, specify: \_\_\_\_\_

In what setting was the patient most likely exposed?

<input type="checkbox"/> Restaurant	<input type="checkbox"/> Place of Worship
<input type="checkbox"/> Home	<input type="checkbox"/> Outdoors, including woods or wilderness
<input type="checkbox"/> Work	<input type="checkbox"/> Athletics
<input type="checkbox"/> Child Care	<input type="checkbox"/> Farm
<input type="checkbox"/> School	<input type="checkbox"/> Pool or spa
<input type="checkbox"/> University/College	<input type="checkbox"/> Pond, lake, river or other body of water
<input type="checkbox"/> Camp	<input type="checkbox"/> Hotel / motel
<input type="checkbox"/> Doctor's office/ Outpatient clinic	<input type="checkbox"/> Social gathering, other than listed above
<input type="checkbox"/> Hospital In-patient	<input type="checkbox"/> Travel conveyance (airplane, ship, etc.)
<input type="checkbox"/> Hospital Emergency Department	<input type="checkbox"/> International
<input type="checkbox"/> Laboratory	<input type="checkbox"/> Community
<input type="checkbox"/> Long-term care facility /Rest Home	<input type="checkbox"/> Other (specify) _____
<input type="checkbox"/> Military	<input type="checkbox"/> Unknown
<input type="checkbox"/> Prison/Jail/Detention Center	

Does the patient smoke?  Y  N  U

Does the patient spend prolonged time indoors where people smoke?  Y  N  U

**OTHER EXPOSURE INFORMATION**

Does the patient know anyone else with similar symptoms?  Y  N  U

Specify \_\_\_\_\_

**GEOGRAPHICAL SITE OF EXPOSURE**

In what geographic location was the patient MOST LIKELY exposed?

Specify location:  
 In NC  
 City \_\_\_\_\_  
 County \_\_\_\_\_

Outside NC, but within US  
 City \_\_\_\_\_  
 State \_\_\_\_\_  
 County \_\_\_\_\_

Outside US  
 City \_\_\_\_\_  
 Country \_\_\_\_\_

Unknown

Is the patient part of an outbreak of this disease?  Y  N

Notes:

**CLINICAL OUTCOMES**

Survived?  Y  N  U

Died?  Y  N  U

Died from this illness?  Y  N  U

Date of death (mm/dd/yyyy): \_\_\_\_/\_\_\_\_/\_\_\_\_

**VACCINE**

Has the patient ever received meningococcal vaccine in the past?  Y  N  U

If yes, type:

Meningococcal polysaccharide vaccine (e.g., Menomune)  
 Number of doses: \_\_\_\_\_  
 Date of last vaccination (mm/dd/yyyy): \_\_\_\_/\_\_\_\_/\_\_\_\_  
 Vaccination date unknown

Meningococcal conjugate vaccine (e.g., Menactra)  
 Number of doses: \_\_\_\_\_  
 Date of last vaccination (mm/dd/yyyy): \_\_\_\_/\_\_\_\_/\_\_\_\_  
 Vaccination date unknown

Vaccine type unknown  
 Number of doses: \_\_\_\_\_  
 Date of last vaccination (mm/dd/yyyy): \_\_\_\_/\_\_\_\_/\_\_\_\_  
 Vaccination date unknown

Vaccination confirmed in:  
 medical record  
 NCIR  
 patient/parent copy of immunization record  
 verbal report only

# Meningococcal Disease (*Neisseria meningitidis*), invasive

## 2005 CDC Case Definition

### Clinical description

Meningococcal disease manifests most commonly as meningitis and/or meningococemia that may progress rapidly to purpura fulminans, shock, and death. However, other manifestations might be observed.

### Case classification

#### *Suspect:*

- Clinical purpura fulminans in the absence of a positive blood culture
- A clinically compatible case with gram negative diplococci from a normally sterile site (e.g., blood or CSF)

*Probable:* A clinically compatible case that has either:

- Evidence of *N. meningitidis* DNA using a validated polymerase chain reaction (PCR), obtained from a normally sterile site (e.g., blood or CSF) <sup>1</sup>,

**OR**

- Evidence of *N. meningitidis* antigen by immunohistochemistry (IHC) on formalin-fixed tissue or latex agglutination of CSF <sup>2,3</sup>

*Confirmed:* A clinically compatible case **AND** isolation of *Neisseria meningitidis* from a normally sterile site (e.g., blood or cerebrospinal fluid {CSF} or, less commonly, synovial, pleural, or pericardial fluid) or skin scrapings of purpuric lesions.

<sup>1</sup> EA Mothershed, et al., "Use of Real-Time PCR to Resolve Slide Agglutination Discrepancies in Serogroup Identification of *Neisseria meningitidis*," *J Clin Microbiol* 42 (2004): 320-328.

<sup>2</sup> J. Guarner, et al., "Pathogenesis and Diagnosis of Human Meningococcal Disease Using Immunohistochemical and PCR Assays," *American Journal of Clinical Pathology* 122, no. 5 (2004): 754-64.

<sup>3</sup> Positive antigen test results from urine or serum samples are unreliable for diagnosing meningococcal disease.