VPD-11

Revised July 2017

Invasive Meningococcal Infection (*Neisseria meningitidis*) Investigation Form

Complete in addition to the Notification of Infectious Disease Form (EPI-1). In the event of an outbreak additional forms and specimen collection are required for testing, a VIDOH-EPID staff will coordinate additional paperwork and investigation.

****** All dates follow mm/dd/yyyy format ******

Case Status: ☐ Confirmed ☐ Probable ☐ Suspect ☐ Not a Case

Island: ☐ STX ☐ STT ☐ STJ ☐ WI

Patient's name: _____
Last First MI

Address: _____

City: _____ ***STATE:** _____ **Zip:** _____

Phone 1: ( ) _____ **Phone 2:** ( ) _____

Date of birth: ____/____/____ **Age:** _____ **Sex:** ☐Male ☐Female ☐Unk

Race: ☐White ☐Black ☐Asian ☐Pacific Islander ☐Native American/Alaskan

☐Unknown ☐ Other: _____ **Hispanic:** ☐ Yes ☐ No ☐ Unknown

Parent/guardian's name: _____

* If USVI resident, please indicate **ESTATE:** _____

Reported by: _____

Agency: _____

Phone: ( )_____**Date reported:** ____/____/____

NBS Patient ID: NBS Investigation ID:

Investigated by: _____

Agency: _____

Phone: ( ) _____

Email:_____

Investigation start date: ____/____/____

Date investigation completed: ____/____/____

CLINICAL DATA

Symptom onset date: ____/____/____ **Illness end date**: ____/____/____

Did patient die? ☐ Yes, died on: ____/____/_____ ☐ No, but still ill ☐ No, recovered ☐ Unknown

Signs and symptoms *(Check all that apply)*:

☐ Fever ☐ Sensitivity to light ☐ Stiff neck ☐ Headache ☐ Nausea ☐ Vomiting ☐ Diarrhea ☐ Chills ☐ Confusion ☐ Fatigue

☐ Rash, pinpoint red spots (petechiae) ☐ Purple, bruise-like areas (purpura) ☐ Cold hands/feet ☐ Muscle pain ☐ Joint pain

☐ Abdominal pain ☐ Shortness of breath ☐ Chest pain ☐ Cough ☐ Seizures ☐ Other: _____

Clinical presentation *(Check all that apply)*:

☐ Bacteremia ☐ Meningitis ☐ Pneumonia ☐ Septic arthritis ☐ Cellulitis ☐ Pericarditis ☐ Osteomyelitis ☐ Purpura fulminans

☐ Other: _____

Physician's name: _____ **Physician's phone:** ( ) _____

UNDERLYING CONDITIONS

Does the patient have any underlying health conditions? ☐ Yes *(check all that apply)* ☐ No ☐ Unknown

☐ Asthma ☐ Other chronic lung disease ☐ Diabetes ☐ End stage renal disease ☐ HIV/AIDS ☐ Cancer ☐ Cochlear implant

☐ Asplenia (functional or anatomic) ☐ Complement component deficiency/inhibition (or taking Soliris) ☐ Other: _____

Other prior illness within two weeks of onset? ☐ Yes, specify:_____ ☐ No ☐ Unknown

HEALTH BEHAVIORS (record in underlying conditions in NBS)

Do any of the following apply to the patient? ☐ Yes *(check behaviors below)* ☐ No ☐ Unknown ☐ Refused to answer

☐ Current smoker ☐ Alcohol, drinks per week: _____ ☐ Intravenous drug use (IVDU), current ☐ Other; specify:_____

TREATMENT HISTORY

Did the patient receive antibiotics? ☐ Yes, one ☐ Yes, multiple ☐ No ☐ Unknown

If yes, name or type of antibiotic given: _____ Start date: ____/____/____ End date: ____/____/____

If yes, name or type of antibiotic given: _____ Start date: ____/____/____ End date: ____/____/____

If yes, name or type of antibiotic given: _____ Start date: ____/____/____ End date: ____/____/____

Were any antibiotics given prior to specimen collection? ☐ Yes ☐ No ☐ Unknown

If yes, antibiotic name:_____ given on ____/____/____ at ____:____ ☐ AM ☐ PM

If yes, antibiotic name:_____ given on ____/____/____ at ____:____ ☐ AM ☐ PM

Pt. Name:_____ NBS Pt. ID:_____ Jurisdiction:_____

HOSPITALIZATION INFORMATION

Was the patient hospitalized? ☐ Yes, name of hospital: _____ ☐ No ☐ Unknown

Date of admission: ____/____/____ Date of discharge: ____/____/_____

How many people were in the vehicle that transported the patient to the hospital? _____

Was the patient seen at multiple hospitals? ☐ Yes ☐ No ☐ Unknown *If yes, complete the following table:*

Hospital / Clinic name	Mode of transportation to facility	Date/time of visit/arrival	Date/time of discharge	Discharged to*
	☐ drove self ☐ driven by friend/family ☐ ambulance ☐ other:_____			
	☐ drove self ☐ driven by friend/family ☐ ambulance ☐ other: _____			

* discharged to home, another facility, or left against medical advice (AMA)

VACCINATION HISTORY

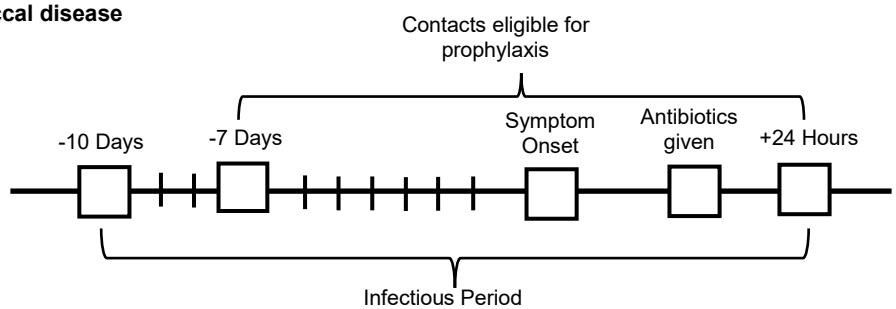
History obtained from: ☐ Patient/Parent ☐ Primary care physician ☐ Reporting physician/facility ☐ School ☐ ImmTrac ☐ Other:_____

Has the patient ever received any meningococcal vaccine? ☐ Yes, *fill in table below* ☐ No ☐ Unknown*

Dose #	Date dose received	Vaccine Manufacturer	Vaccine Brand/Name	Vaccine Lot Number
1	____/____/_____			
2	____/____/_____			
3	____/____/_____			

**Note: All possible sources of vaccination history above should be exhausted before deciding that vaccination status is "unknown".*

Timeline for meningococcal disease



ADDITIONAL EXPOSURE HISTORY

Did the patient travel anywhere during the two weeks prior to onset and up until the patient was diagnosed/treated? ☐ Yes ☐ No ☐ Unk

Travel location:_____ Dates of travel: ____/____/_____ to ____/____/_____

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Travel location:_____ Dates of travel: ____/____/_____ to ____/____/_____

Did the patient spend 8 or more hours on an airplane (or bus, train, etc.)? ☐ Yes, *complete line(s) below* ☐ No ☐ Unknown

Airline:_____ Flight number:_____ Flight date: ____/____/____ Time:___:___ Departure city:_____

Airline:_____ Flight number:_____ Flight date: ____/____/____ Time:___:___ Departure city:_____

Did the patient attend any gatherings (e.g., public, church/religious, family, etc.), conventions, meetings, parties, dinners, sporting events, festivals, or other group events during the two weeks prior to onset? ☐ Yes, *complete the following table* ☐ No ☐ Unknown

Event	**Location**	**# of people present**	**Date of event**
			____/____/_____
			____/____/_____
			____/____/_____

Pt. Name:_____ NBS Pt. ID:_____ Jurisdiction:_____

CONTACTS *Refer to the last page for a description of close contacts*

For the following questions, please ask about the two weeks prior to symptom onset and up until the patient was appropriately treated.

Where was the patient living? ☐ Single-family dwelling ☐ Duplex, triplex, etc. ☐ Apartment/Condo/Townhome ☐ Dormitory ☐ Military barracks ☐ Hospital or rehab facility ☐ Nursing home or similar ☐ Retirement home ☐ Correctional facility ☐ Detention center ☐ Shelter/halfway house ☐ Camp ☐ Other:_____ ☐ Unknown

How many people live in the patient's household? _____

How many people did the patient…

Kiss?____ Share a sleeping area with?_____ Share a toothbrush with?_____ Share food or utensils with?_____ Share drinks with?_____

Share (brass or wind) band instruments with?_____ Share cigarettes with?_____ Share drugs with?_____

Did the patient perform mouth to mouth resuscitation on anyone? ☐ Yes ☐ No ☐ Unknown

If yes, name of person:_____ Date performed :____/____/_____

Did the patient attend, visit, or work at a school? ☐ Yes, student ☐ Yes, faculty/staff ☐ Yes, visitor ☐ No ☐ Unknown

If a college student, college year: ☐ Fr ☐ So ☐ Jr ☐ Sr ☐ Other Live in a dorm? ☐ Yes ☐ No ☐ Unknown

Did the patient attend, stay, visit, or work at a childcare center, home daycare, nursing home, or similar facility? ☐ Yes ☐ No ☐ Unk

If yes, school/facility name: _____ Date last attended/worked/visited before onset: ____/____/_____

Total contacts (#): _____students/residents _____staff Total close contacts (#): _____students/residents _____staff

Did anyone associated with the facility have a similar illness during the two weeks prior to onset? ☐ Yes ☐ No ☐ Unknown

If yes, name of person:_____ Date of onset ____/____/____ *If needed, attach list to this report*

Was the patient in a detention center or correctional facility (e.g., jail, prison, etc.)? ☐ Yes, name:_____ ☐ No ☐ Unknown

Is the patient employed? ☐ Yes ☐ No ☐ Unknown

Occupation: _____ Name/location of employer: _____

Date last worked before treatment: ____/____/_____ Description of job duties: _____

During the two weeks prior to onset, did any member of the patient's household have a similar illness? ☐ Yes ☐ No ☐ Unknown

If yes, name of person:_____ Date of onset ____/____/_____

If yes, name of person:_____ Date of onset ____/____/_____

SEXUAL CONTACTS

Please ask the patient the following questions:

During the past 12 months, have you had sex with only males, only females, or with both males and females?

☐ Males only ☐ Females only ☐ Both males and females ☐ Unknown ☐ Refused to answer

Do you consider yourself to be: ☐ Heterosexual/Straight ☐ Gay/Lesbian/Homosexual ☐ Bisexual ☐ Other: _____ ☐ Refused

Thinking back to the 3 months before you were diagnosed with meningococcal disease, how many MEN did you have sex with during that time?

Number of men: _____ (☐ Known ☐ Estimated) ☐ Unknown (no number given) ☐ Refused to answer

PROPHYLAXIS

Date prophylaxis recommendations were first made: ____/____/____

Prophylaxis provided by *(check all that apply)*: ☐ DSHS or LHD ☐ Hospital ☐ Private physician ☐ Other:_____ ☐ None given

Number of people	Household	Students at school &/or daycare	Staff at school &/or daycare	Residents at long term care facility	Staff at long term care facility	Healthcare workers including EMS	Other close contacts*
Prophylaxis recommended for:							
Declined recommended prophylaxis:							
Received prophylaxis:							

* Friends, colleagues, extended family, etc.

Pt. Name:_____ NBS Pt. ID:_____ Jurisdiction:_____

LABORATORY DATA

Isolate sent to DSHS (required)**?** ☐ Yes, on____/____/____; DSHS#: _____ ☐ No, reason:_____ ☐ Unknown

Was *Neisseria meningitidis* testing done?

☐ Yes, *complete sections below* ☐ No, diagnosis based on clinical purpura fulminans ☐ Other:_____

Gram stain:

Date and time collected: ____/____/_____; ____:____ ☐AM ☐PM Specimen Source: ☐ CSF ☐ Blood ☐ Other:_____

Result: ☐ Gram-negative diplococci ☐ Negative ☐ Inconclusive ☐ Unknown ☐ Other:_____

CSF Profile: Date collected: ____/____/_____ Appearance:_____ Pressure:_____ mm H_2O

Glucose: _____mg/dL Protein:_____ mg/dL RBCs:_____mm^3 WBCs:_____mm^3 Lymphs:_____% Polys:_____% Mono:_____%

Culture:

Date and time collected: ____/____/_____; ____:____ ☐AM ☐PM Specimen Source: ☐ CSF ☐ Blood ☐ Other:_____

Result: ☐ Positive for: _____ ☐ Negative ☐ Inconclusive ☐ Unknown ☐ Other:_____

Other test:

Test type: ☐ Latex agglutination ☐ Immunohistochemistry (IHC) ☐ PCR ☐ Other:_____

Date and time collected: ____/____/_____; ____:____ ☐AM ☐PM Specimen Source: ☐ CSF ☐ Blood ☐ Other:_____

Result: ☐ Positive for: _____ ☐ Negative ☐ Inconclusive ☐ Unknown ☐ Other:_____

Serogroup results : ☐ A ☐ B ☐ C ☐ Y ☐ W135 ☐ Other:_____ ☐Not groupable ☐ Unknown ☐ Pending

ADDITIONAL HEALTH DEPARTMENT ACTIONS AND CONTROL MEASURES IMPLEMENTED *(check all that apply and indicate date initiated)*

☐ Confirmed that symptomatic individuals are placed on droplet precautions until 24 hours after effective antibiotic treatment on ____/____/____

☐ Reviewed high risk exposures with medical provider on ____/____/____

☐ Contact tracing (identifying close contacts through patient or surrogate interview) initiated on____/____/____

☐ Education (risk, transmission, symptoms) provided to contacts starting on ____/____/____

☐ Requested the hospital or laboratory forward the isolate to the DSHS lab on ____/____/____

☐ Worked with school, daycare or long term care facility to identify and notify close contacts starting on ____/____/____

☐ Other (specify):_____ on ____/____/____

☐ Other (specify) _____ on ____/____/____

COMMENTS

PROPHYLAXIS RECOMMENDATIONS

THE FOLLOWING GROUPS OF INDIVIDUALS SHOULD RECEIVE CHEMOPROPHYLAXIS AFTER EXPOSURE TO MENINGOCOCCAL DISEASE

Groups of individuals recommended to receive prophylaxis after to exposure with a person with invasive meningococcal disease:

- **All close family contacts, household members, and anyone who frequently slept in the same dwelling as the case.**
- **Classroom contacts in the preschool, childcare center, or childcare home attended by the case.**
- **Persons directly exposed to infectious oral secretions without personal protective equipment (PPE) including through kissing, sharing utensils, sharing toothbrushes, or unprotected mouth to mouth resuscitation, intubation, or suctioning procedures**
- **Passengers seated directly next to the case during airline flights lasting 8 hours or more.**

It is important that antimicrobial chemoprophylaxis be administered as soon as possible, ideally within 24 hours. The incubation period is 1 to 10 days. Chemoprophylaxis given more than 14 days after exposure is of limited value.

When prophylaxis is indicated, it should be administered to all eligible contacts at the same time to eliminate the organism from the population. Prophylaxis should begin within 24 hours of diagnosis or strong suspicion of case. Culturing of contacts is not recommended. Prophylaxis should not substitute for close observation of case contacts for symptoms. Refer to the current American Academy of Pediatrics Red Book for prophylaxis dosages.

Prophylaxis is not recommended for casual contacts without direct exposure to the patient's oral secretions (e.g., work or school, except as noted above). All contacts should be provided education on risk, transmission, and symptoms.