



ESP CASE DETECTION ALGORITHM

Gonorrhea

Document Version 2.1

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Modification History

| Version | Date | Modification | By |
|---------|------------|--|-------------------|
| 2.1 | 10/11/2017 | Added ESP Logo and MDPH branding | DPM |
| 2.0 | 7/5/2017 | Placed onto new algorithm template | DPM |
| 1.6 | 6/20/2016 | Changing recurrence interval to 30 days per DPH request. Change reportables accordingly. | MDPH/CII |
| 1.5 | 11/23/2015 | Add gemifloxacin as a reportable med per DPH | MDPH/CII |
| 1.4 | 10/1/2015 | Incorporateing review on reportable symptoms by DPH and Dr. Klompas | DPM/MDPH/CII |
| 1.3 | 9/2015 | Updated medication reporting, ICD10 | CII |
| 1.2 | 5/1/2015 | Updates from discussions with DPH including recurrence, reportable labs | MDPH/CII |
| 1.1 | 12/18/2014 | Updates to bring in line with current code | CII |
| 1.0 | | Initial Draft | ESP Working Group |



Section 1. Overview

The purpose of this document is to describe the criteria used to identify and report gonorrhea cases from electronic medical records (EMR) using ESP and report them to the Massachusetts Department of Public Health (MDPH).

Section 2. Criteria used to identify cases using ESP data

I. CASE TYPES

This document includes an algorithm to identify incident and recurrent gonorrhea cases.

II. TIME WINDOW

The recurrence interval for gonorrhea is 30 days.

III. CASE CRITERIA

Cases are defined as patients with any positive gonorrhea lab test results with result = “positive” or “detected” or abnormal flag activated. Note that lab names and result strings will differ by site.

IV. CRITERIA TO REVOKE A CASE

None.

Section 3. Specifications for reporting diseases/conditions to the Massachusetts Department of Public Health

I. INITIAL CASE REPORTING CRITERIA

All cases should be immediately reported to MDPH upon initial detection.

I. CASE REPORT UPDATE CRITERIA

None.

I. DATA TO INCLUDE IN INITIAL REPORTS TO MDPH

Once a patient is identified, gather the following data to generate a report:

A. Demographic

| | |
|------------------------|---|
| Name | Last, first, middle |
| Date of birth | yyyy/mm/dd |
| Age | |
| Social security number | Last 4 digits |
| Gender | Male / Female |
| Race | American Indian / Asian / Black / White / Other / Unknown |



| | |
|-----------------------|---|
| Ethnicity | Hispanic / Non-Hispanic / Unknown |
| Marital Status | Single / Married / Other, Unknown |
| Address | Line 1, line 2, city, state, zip, country |
| Phone | xxx-xxx-xxxx |
| Language spoken | |
| Medical record number | |
| PCP | Name, office address, phone number, email |

B. Ordering Facility Information

| | |
|-------------------------|----------------------------------|
| Facility name | |
| Facility address | Line 1, line 2, city, state, zip |
| Facility contact person | |
| Contact person email | |
| Contact person phone | xxx-xxx-xxxx |
| Facility phone | xxx-xxx-xxxx |

C. Encounter data

| | |
|-------------------------|---|
| Test ordering clinician | Name, office address, phone number, email |
| Treating clinician | Name, office address, phone number, email |

D. Laboratory Results

| | |
|-----------------------------|--|
| Date specimen obtained | yyyy/mm/dd |
| LOINC code of positive test | LOINC (See Table 1 for examples) |
| Result | SNOMED |

E. Pregnancy

| | |
|------------------------------|--|
| Pregnancy flag active | Yes or No. If EpicCare pregnancy flag active then pregnancy = yes. |
| Expected date of confinement | =EDC |
| Number of weeks pregnant | =40 - [(EDC - present date) / 7] |

F. Symptoms

If any of the following diagnosis codes (see [Table 2](#), below) or vital sign findings are present in the 14 days preceding or 30 days following the positive culture report then symptoms=yes, otherwise symptoms=no and the following symptoms are reported.

| | |
|------------------------------|---|
| Fever | Diagnosis code (see Table 2) or measured temperature >100.4 degrees Fahrenheit |
| Urethral discharge | |
| Urethritis | |
| Vaginitis | |
| Cervicitis | |
| Vaginal leucorrhea | |
| Abdominal pain | |
| Chlamydia | |
| Contact with Exposure to STI | |
| Screening for STIs | |



G. Medications

Report all of the medications from the specified chlamydia medications list (see Table 3, below) given at any point from 7 days prior to the lab order date until 30 days after the positive test result date.

| | |
|---------------------------------------|--|
| Treatment given | Yes or No |
| Date of treatment | yyyy/mm/dd |
| Prescription for chlamydia medication | See Table 3 . Report drug name, dose, route, and duration. |

Section 4. Codes, laboratory tests, and medications used to identify criteria listed in Section 2 and supplementary reporting information in Section 3.

I. LABORATORY TESTS

The following is an example of possible gonorrhea lab tests and the mappings from test name to LOINC. All appropriate tests must be mapped in ESP.

Table 1. Laboratory Test LOINC Mapping

| Component Name | LOINC | LOINC Name |
|------------------------|---------|--|
| GC CULTURE | 691-6 | Neisseria gonorrhoeae : ACnc : Pt : Gen: Ord : organism specific culture |
| GC GENPROBE DNA | 23908-7 | Neisseria gonorrhoeae DNA : ACnc : Pt : xxx : Ord : Probe |
| N. GONORRHOEAE URINE | 24111-7 | Neisseria gonorrhoeae DNA : ACnc : Pt : xxx : Ord : Probe.Amp.Tar |
| URINE GC AND CHLAMYDIA | 36902-5 | Chlamydia Trachomatis+Neisseria Gonorrhoeae DNA : ACnc : Pt : xx |

NOTE: both lab test names and results may be truncated in the EHR system. Clinical input will be necessary to determine the proper labs to map.

II. DIAGNOSES CODES

Table 2. Diagnosis Codes Used to Identify Symptoms

| Symptom | Code Type | Code | Description |
|--------------------|-----------|--------------------|--|
| Fever | N/A | Temperature >100.4 | Measured temperature if available, ELSE "fever". |
| | ICD-9-CM | 780.60, 780.6 | Fever |
| | ICD-10-CM | R50.9 | Fever, unspecified |
| Urethral discharge | ICD-9-CM | 788.7 | Urethral discharge |
| | ICD-10-CM | R36.0 | Urethral discharge without blood |
| | ICD-10-CM | R36.9 | Urethral discharge, unspecified |
| Urethritis | ICD-9-CM | 099.40 | Urethritis, nonspecific, |
| | ICD-9-CM | 597.80 | Urethritis, unspecified, |
| | ICD-10-CM | N34.1 | Nonspecific urethritis |
| | ICD-10-CM | N34.2 | Other urethritis |
| Vaginitis | ICD-9-CM | 616.10 | Vaginitis, unspecified |
| | ICD-10-CM | N76.0 | Acute vaginitis |
| | ICD-10-CM | N76.1 | Subacute and chronic vaginitis |
| | ICD-10-CM | N76.2 | Acute vulvitis |
| | ICD-10-CM | N76.3 | Subacute and chronic vulvitis |
| Cervicitis | ICD-9-CM | 616.0 | Cervicitis |



| | | | |
|------------------------------|-----------|----------------------------|--|
| | ICD-10-CM | N72 | Inflammatory disease of cervix uteri |
| Vaginal leucorrhea | ICD-9-CM | 623.5 | Vaginal leucorrhea |
| | ICD-10-CM | N89.8 | Other specified noninflammatory disorders of vagina |
| Abdominal pain | ICD-9-CM | 789.07 | Abdominal pain, generalized |
| | ICD-10-CM | R10.84 | Generalized abdominal pain |
| | ICD-9-CM | 789.04 | |
| | ICD-10-CM | R10.32 | Left lower quadrant pain |
| | ICD-9-CM | 789.09 | |
| | ICD-10-CM | R10.10 | Upper abdominal pain, unspecified |
| | ICD-10-CM | R10.2 | Pelvic and perineal pain |
| | ICD-10-CM | R10.30 | Lower abdominal pain, unspecified |
| | ICD-9-CM | 789.03 | |
| | ICD-10-CM | R10.31 | Right lower quadrant pain |
| | ICD-9-CM | 789.00 | Abdominal pain, unspec site |
| ICD-10-CM | R10.9 | Unspecified abdominal pain | |
| Chlamydia | ICD-9-CM | 099.54 | Chlamydia |
| | ICD-10-CM | A56.19 | Other chlamydial genitourinary infection |
| Contact with Exposure to STI | ICD-9-CM | V01.6 | Contact with Exposure to STI |
| | ICD-10-CM | Z20.2 | Contact with and (suspected) exposure to infections with a predominantly sexual mode of transmission |
| Screening for STIs | ICD-9-CM | V74.5 | Screening for STIs |
| | ICD-10-CM | Z11.3 | Encounter for screening for infections with a predominantly sexual mode of transmission |

III. MEDICATIONS

Table 3. Gonorrhea Medications

| Treatment |
|---------------|
| amoxicillin |
| cefixime |
| cefotaxime |
| cefpodoxime |
| ceftizoxime |
| ceftriaxone |
| ciprofloxacin |
| gatifloxacin |
| levofloxacin |
| ofloxacin |
| spectinomycin |
| moxifloxacin |
| azithromycin |
| doxycycline |
| gemifloxacin |