ESP CASE DETECTION ALGORITHM
Gonorrhea

Document Version 3.0

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Modification History

Version	Date	Modification	By
3.0	03/01/2019	Added new reportable provider fields	DPM
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. Lab 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
Facility NPI	

C. Encounter data

See Table 4 below for the NA codes to send provider fields in HL7 messages

Lab test ordering provider	Name and NPI
Prescribing provider	Name and NPI
Primary care provider	Name and NPI
Managing treatment provider	Name and NPI
Treatment encounter facility name	
Treatment encounter facility address	Line 1, line 2, city, state, zip
Treatment encounter facility NPI	

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

IV.   NA CODES

Table 4. NA Codes for provider reporting fields

NA code	Description
NA-1746	Prescribing provider name
NA-1747	Prescribing provider NPI
NA-1748	Treatment encounter facility name
NA-1749	Treatment encounter facility address
NA-1750	Treatment encounter facility city
NA-1751	Treatment encounter facility state
NA-1752	Treatment encounter facility NPI
NA-1753	Primary care provider name
NA-1754	Primary care provider NPI
NA-1755	Ordering provider name
NA-1756	Ordering provider NPI
NA-1757	Lab ordering facility name
NA-1758	Lab ordering facility address
NA-1759	Lab ordering facility city
NA-1760	Lab ordering facility state
NA-1761	Lab ordering facility NPI
NA-1762	Managing treatment provider name
NA-1763	Managing treatment provider NPI