



Increasing Adequate Treatment of Gonorrhea Patients in New York State

Xiaohong Wang
 Statistical Unit, Division of Epidemiology

September 23, 2015

2

Introduction

- The New York State Electronic Clinical Laboratory Reporting System (ECLRS) was implemented in 2001 to enable laboratories to meet their public health reporting requirements to the New York State Department of Health, local health departments and the New York City Department of Health and Mental Hygiene for reportable conditions
- The Communicable Disease Electronic Surveillance System (CDESS) is an electronic disease case reporting and investigation system, used by 57 Local Health Departments



September 23, 2015

3

Introduction

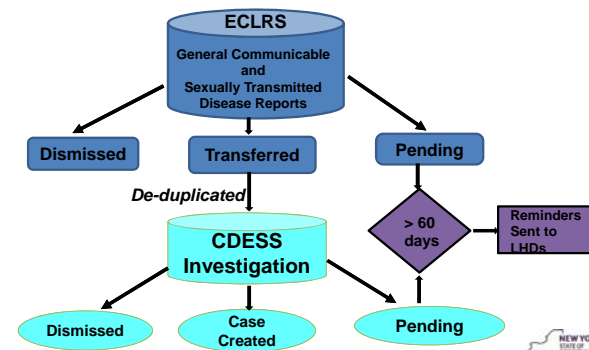
- There were over 13,000 gonorrhea cases reported during 2013-2014 from NYS excluding NYC
- November 2013-May 2014, 61% of cases were adequately treated, 29% of cases were missing treatment information
- Local Health Departments (LHDs) were offered a performance incentive to increase the percentage of adequately treated cases(goal is 90%)
- Monthly reports of gonorrhea cases and treatment data were posted to help LHDs monitor case treatment status and data completeness



September 23, 2015

4


ECLRS & CDESS Reports Monitoring





September 23, 2015 5

Monthly ECLRS/CDESS Monitoring Report by Disease

Disease	Total	ECLRS			CDESS			
		Dismissed	Not Transferred or Dismissed	Transferred to CDESS	Unique Investigation	Dismissed	Not Transferred or Dismissed	Case Created from ECLRS
Syphilis	43	5 (11.6%)	0 (0%)	38 (88.4%)	33	10 (30.3%)	17 (51.5%)	6 (18.2%)
Gonorrhea	17				17	8 (47.1%)	6 (35.3%)	3 (17.6%)



- September 23, 2015 6
- ### Methods
- Using SAS V 9.3 to create datasets and exporting them into comma separated value(CSV) files with one record per patient
 - Using a character large object(CLOB) to upload these CSV files to the CDESS Oracle database
 - LHDs used these files to identify cases with inadequate treatment and conduct patient and provider follow up to promote appropriate treatment
- 

- September 23, 2015 7
- ### Methods
- Data Fields
 - Patient demographic information
 - Treatment information (type, dosage, frequency, date)
 - Additional treatment information
 - Calculation the proportion of gonorrhea case reports
- 

September 23, 2015 8

Case Report

Serial No: 201501292817 Originating County: Albany Create Date: 03/20/2015 Creator: AutoBatch Last Update Date: 03/23/2015 Last Updated By: Jennifer Thayer

Record Origin: Transferred from ECLRS Current County: Albany Case County: Albany Case Create Date: 03/23/2015

Patient Information Patient Registry

Name: Last First Middle Suffix Maiden

Alias: Last First Middle

Guardian's Name: Last First Middle

Phone No: () X ()

Home CellWork Alternate CellWork

Email:

Physical Address: Street No./Street 1 Street 2 Mailing Address (if different) Street No./Street 1 Street 2

* Please Pick One Zip City Zip

Locality NEW YORK StateCode

Foreign Resident: No

September 23, 2015 9

GONORRHEA, UNCOMPLICATED Supplement

Recommended Treatment	Treatment Other	Units(Dosage)	Frequency	Route	Date of Treatment
Azithromycin		1gm	x1	PO	03/17/2015
Ceftriaxone		250mg	x1	IM	03/17/2015
Please Pick One				Please Pick One	

Additional Treatment Information

CHOOSE the facility where the patient was tested:

Put in the 5-digit Testing Provider Code here: 01000

County: Albany Provider Type: Health Departments and Clinics Testing Provider: ACHO - STD Clinic

CHOOSE the facility where the patient was treated:

Put in the 5-digit Treating Provider Code here: 01000

County: Albany Provider Type: Health Departments and Clinics Treating Provider: ACHO - STD Clinic

Adequate treatment: Yes Primary reason for inadequate treatment: Please Pick One

September 23, 2015 10

Results: Gonorrhea Treatment Performance Report November 2014 - May 2015

County	Total	Adequate Treatment		Inadequate Treatment		Missing Data	
	Cases(Confirmed)	Cases	Percent	Cases	Percent	Cases	Percent
ALBANY	261	254	97.3%	5	1.9%	2	0.8%
ALLEGANY	7	7	100.0%	0	0.0%	0	0.0%
BROOME	88	87	98.9%	1	1.1%	0	0.0%
CATTARAUGUS	12	12	100.0%	0	0.0%	0	0.0%
CAYUGA	13	13	100.0%	0	0.0%	0	0.0%
CHAUTAUQUA	51	50	98.0%	1	2.0%	0	0.0%
CHEMUNG	37	37	100.0%	0	0.0%	0	0.0%
CHENANGO	4	4	100.0%	0	0.0%	0	0.0%

NEW YORK STATE OF HEALTH Department of Health

September 23, 2015 11

Results: Performance Indicator for the Report

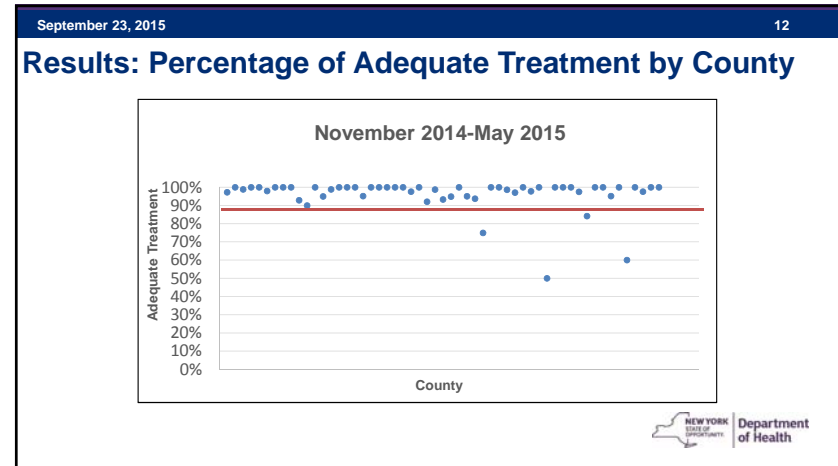
Adequate Treatment

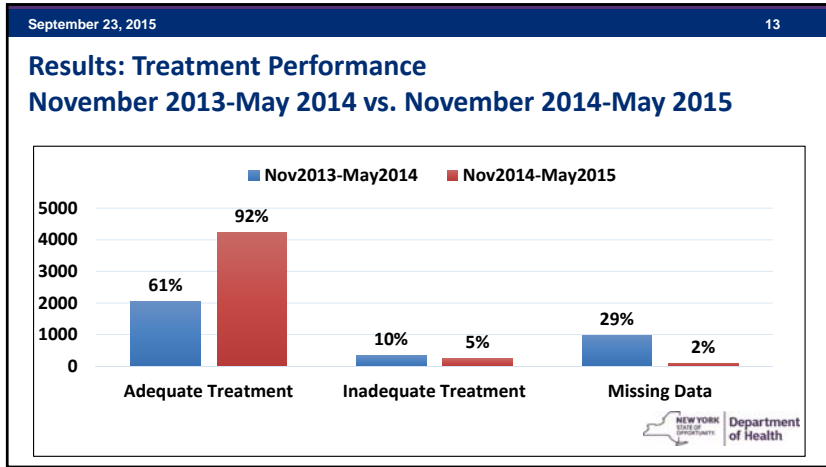
- CDC recommended two treatment regimen within two days
- Cephalosporin-allergic patients treated with 2g azithromycin
- Incomplete cases with primary reason

Missing Treatment Data

- Recommended treatment (name of antibiotic)
- Units(dosage)
- Frequency (number of doses)
- Route
- Date of treatment for each antibiotic

NEW YORK STATE OF HEALTH Department of Health





September 23, 2015 14

Results: Reasons for Inadequate Treatment

Inadequate Treatment	Cases
Correct combination with days>2	87 (36%)
Incorrect combination	34 (14%)
One treatment	114 (47%)
Same antibiotic with different dates	6 (2%)

NEW YORK STATE OF DEPARTMENT OF HEALTH

September 23, 2015 15

Gonorrhea Treatment Download

CDESS Core and Supplement Download

County: Albany
 Disease: GONORRHEA
 CaseYear: 2015

Get Reset

Filtered Record: Click on the Download link

Selected Criteria: County: Albany; Disease: GIARDIASIS; CaseYear: 2016;

Created Date: 09/10/2015 Download

Main Menu | ECLRS Transfer List | New Investigation | Search Reports | MIS TBTT | RHA MENU | Rabies | Maintenance | Logout

September 23, 2015 16

Gonorrhea Treatment - CSV File by County


serialno	COUNTY	dob_date	age	age_units	sex	diagnosis_date	TreatDate1	TreatDate2	TreatDate3	TreatRecommended1	TreatRecommended2	TreatRecommended3	
1	201501291700	1	6/24/1997	17	1	2	1/1/2015	1/1/2015	1/1/2015	Ceftriaxone	Doxycycline		
2	201501291640	1	11/2/1994	20	1	1	1/2/2015	1/2/2015	1/2/2015	Azithromycin	Ceftriaxone		
3	201501291757	1	5/3/1993	21	1	2	1/3/2015						
4	201501291641	1	5/18/1980	34	1	1	1/4/2015	1/4/2015	1/4/2015	Azithromycin	Ceftriaxone		
5	201501291704	1	10/28/1992	22	1	1	1/4/2015	1/4/2015	1/4/2015	Azithromycin	Ceftriaxone		
6	201501291639	1	1/20/1968	46	1	1	1/3/2015	1/3/2015	1/3/2015	1/30/2015	Azithromycin	Ceftriaxone	Azithromycin

TreatUnits1	TreatUnits2	TreatUnits3	TreatFreq1	TreatFreq2	TreatFreq3	TreatRoute1	TreatRoute2	Treatment_Route3	AdequateTreatment	ReasonNoAdequateTreatment
250MG	100MG	X1	X1	BIDX7D		IM	PO		Yes	
1GM	250MG	X1	X1			PO	IM		Yes	
									No	Patient Lost to Follow Up, No Treatment
1GM	250MG	X1	X1			PO	IM		Yes	
1gm	250 mg	x1	x1			PO	IM		Yes	Patient Lost to Follow Up, No Treatment
1GM	250MG	1gm	X1	X1	x1	PO	IM	PO	Yes	

September 23, 2015 17

Conclusions


- Based on surveillance data, the percentage of adequately treated gonorrhea patients increased by 31% during the performance incentive period
- The completeness of surveillance data on gonorrhea treatment also improved by 26%
- Enhancements in LHD performance led to improved patient outcomes



September 23, 2015 18

Acknowledgements

Candace Noonan-Toly, BA
Salvatore Currenti, MPH
Alison Muse, MPH
Hwa-Gan Chang, PhD
New York State Department of Health



September 23, 2015 19

Questions

Xiaohong.Wang@health.ny.gov

