Increasing Adequate Treatment of Gonorrhea Patients in New York State

Xiaohong Wang
Statistical Unit, Division of Epidemiology

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

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

ECLRS & CDESS Reports Monitoring

- De-duplicated
- Reminders Sent to LHDs
- ECLRS
  - General Communicable and Sexually Transmitted Disease Reports
  - Dismissed
  - Transferred
  - Pending

- CDESS
  - Investigation
  - >60 days
  - Case Created
  - Pending

- Dismissed
- Transferred
- Pending

- Reminders Sent to LHDs
### Monthly ECLRS/CDESS Monitoring Report by Disease

<table>
<thead>
<tr>
<th>Disease</th>
<th>ECLRS</th>
<th>CDESS</th>
<th>Case Created from ECLRS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Dismissed</td>
<td>Not Transferred or Dismissed</td>
</tr>
<tr>
<td>Syphilis</td>
<td>43</td>
<td>5 (11.6%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Gonorrhea</td>
<td>17</td>
<td>17</td>
<td>17</td>
</tr>
</tbody>
</table>

### Methods

- **Data Fields**
  - Patient demographic information
  - Treatment information (type, dosage, frequency, date)
  - Additional treatment information

- Calculation the proportion of gonorrhea case reports

- **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

<table>
<thead>
<tr>
<th>County</th>
<th>Total Cases(Confirmed)</th>
<th>Adequate Treatment</th>
<th>Inadequate Treatment</th>
<th>Missing Data</th>
<th>Cases</th>
<th>Percent</th>
<th>Cases</th>
<th>Percent</th>
<th>Cases</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALBANY</td>
<td>261</td>
<td>254</td>
<td>7</td>
<td>1.9%</td>
<td>5</td>
<td>0.8%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ALLEGANY</td>
<td>7</td>
<td>7</td>
<td>0</td>
<td>0.0%</td>
<td>0</td>
<td>0.0%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BROOME</td>
<td>88</td>
<td>87</td>
<td>1</td>
<td>1.1%</td>
<td>0</td>
<td>0.0%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CATTARAUGUS</td>
<td>12</td>
<td>12</td>
<td>0</td>
<td>0.0%</td>
<td>0</td>
<td>0.0%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHEMUNG</td>
<td>13</td>
<td>13</td>
<td>0</td>
<td>0.0%</td>
<td>0</td>
<td>0.0%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHAUTAQUA</td>
<td>50</td>
<td>50</td>
<td>1</td>
<td>2.0%</td>
<td>0</td>
<td>0.0%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chenango</td>
<td>37</td>
<td>37</td>
<td>0</td>
<td>0.0%</td>
<td>0</td>
<td>0.0%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chenango</td>
<td>4</td>
<td>4</td>
<td>0</td>
<td>0.0%</td>
<td>0</td>
<td>0.0%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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
Results: Treatment Performance

- Inadequate Treatment: 10%, 5%
- Missing Data: 2%, 2%

Results: Reasons for Inadequate Treatment

<table>
<thead>
<tr>
<th>Inadequate Treatment</th>
<th>Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correct combination with days&gt;2</td>
<td>87 (36%)</td>
</tr>
<tr>
<td>Incorrect combination</td>
<td>34 (14%)</td>
</tr>
<tr>
<td>One treatment</td>
<td>114 (47%)</td>
</tr>
<tr>
<td>Same antibiotic with different dates</td>
<td>6 (2%)</td>
</tr>
</tbody>
</table>

Gonorrhea Treatment Download

Gonorrhea Treatment - CSV File by County
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.

Acknowledgements

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Questions

Xiaohong.Wang@health.ny.gov