Developing a Registry to Coordinate Hepatitis C Screening and Linkage to Care in the Los Angeles County Jail System

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Outline

• How is the Hepatitis C registry being developed?
• What are the challenges to creating and using the registry?
• How can the registry be used to improve care coordination?
Registry Development
Registry Objectives

- Track status of essential steps in care cascade
- Track essential results needed to plan treatment
- Track information necessary for care coordination
Registry Data Sources

- Electronic laboratory reporting
  - ~90 labs in LA County reporting results electronically
  - Antibody, PCR, and genotype positive test results
  - Negative PCR results
- Electronic medical records
- Sheriff’s booking system
- California Immunization Registry (CAIR)
Registry Structure

- Incident level data
  - Each new positive test result creates new incident report
  - Includes test type, test result, date specimen collected, name, date of birth, age, and sex

- Person level data
  - Relates all incidents to a person
  - Allows for classification of disease status
## Registry Structure: Incident Level

<table>
<thead>
<tr>
<th>Person ID</th>
<th>Test Type</th>
<th>Test Date</th>
<th>Test Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ab</td>
<td>1/1/2018</td>
<td>Reactive</td>
</tr>
<tr>
<td>2</td>
<td>Ab</td>
<td>2/1/2018</td>
<td>Reactive</td>
</tr>
<tr>
<td>2</td>
<td>PCR</td>
<td>2/1/2018</td>
<td>2378923</td>
</tr>
<tr>
<td>2</td>
<td>Genotype</td>
<td>2/1/2018</td>
<td>1A</td>
</tr>
<tr>
<td>2</td>
<td>PCR</td>
<td>4/1/2018</td>
<td>&lt;15</td>
</tr>
<tr>
<td>3</td>
<td>Ab</td>
<td>5/1/2018</td>
<td>Reactive</td>
</tr>
<tr>
<td>3</td>
<td>PCR</td>
<td>5/1/2018</td>
<td>65482</td>
</tr>
</tbody>
</table>
Registry Structure: Person Level

<table>
<thead>
<tr>
<th>Person ID</th>
<th>First Ab Result</th>
<th>First Ab Date</th>
<th>First PCR Result</th>
<th>First PCR Date</th>
<th>Last PCR Result</th>
<th>Last PCR Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Reactive</td>
<td>1/1/2018</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Reactive</td>
<td>2/1/2018</td>
<td>2378923</td>
<td>2/1/2018</td>
<td>&lt;15</td>
<td>4/1/2018</td>
</tr>
<tr>
<td>3</td>
<td>Reactive</td>
<td>5/1/2018</td>
<td>65482</td>
<td>5/1/2018</td>
<td>65482</td>
<td>5/1/2018</td>
</tr>
</tbody>
</table>

Also includes:
- Genotype test result and test date
- Name
- Booking number
- Age
- Sex
- Case classification
Classification of Cases

- Complicated for persons tested outside jail without PCR results
- Can confirm if someone has evidence of infection
- Can determine if a subset have resolved infection:
  - Certain labs send negative results
  - Those that go from a high viral load to <15
  - Those tested at jail or other facilities that always reflex antibody tests to PCR
- Many cases undifferentiated between chronic and resolved
Challenges and Future Plans
Hepatitis C Jail Registry Challenges

- Deduplication of cases and results
- Incomplete/missing patient information
- Classification of cases tested outside jail
- Lack of negative PCR reporting across all labs
- Relevant data in different systems
- Data sharing
Registry Future Plans: Data

• Create data sharing process with jail for two-way information exchange
• Incorporate additional data into registry:
  – Anticipated discharge date
  – Clinical information (LFTs, APRI score, etc.)
  – Hepatitis A and B vaccination status
  – Negative PCR results
Registry Future Plans: Care Coordination

• Identify:
  – Persons known to have HCV currently in the jail
  – Persons eligible for treatment while incarcerated
  – Persons who should be linked to provider after release

• Generate summary information to be transmitted to:
  – State prison
  – Provider in the community
Questions

• Is your state using surveillance data to track HCV outcomes in correctional settings?
• Does your state share data between correctional and public health departments?
• Does your state have a registry for persons with HIV in correctional facilities? Are there lessons from HIV that can be applied to HCV?