The Cohort Review Process

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What is Cohort Review?
Cohort review is a systematic review of the management of patients with TB disease and their contacts.

Implementation of Cohort Review in Washington
34 Local Health Jurisdictions (LHJs) for 39 counties – all counties participated in training.
Cohort Review Differences:
NYC and WA

<table>
<thead>
<tr>
<th></th>
<th>New York Model 1993</th>
<th>WA State 2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case Presentation</td>
<td>Presentations include case manager, outreach staff, clinic staff, etc.</td>
<td>Presentations due by case manager</td>
</tr>
<tr>
<td>Patient and Contacts</td>
<td>Yes – issues addressed during cohort review</td>
<td>Yes – issues and timeliness measures addressed during cohort review</td>
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<tr>
<td>Outcomes</td>
<td></td>
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<tr>
<td>Analysis of Outcomes</td>
<td>Calculation and summary from current cohort presented by epidemiologist</td>
<td>Data summaries from previous quarter’s cohort presented by epidemiologist</td>
</tr>
</tbody>
</table>

Modifications

- Revised cohort review form (see hand-out)
- Timeliness measures (see hand-out)
- Added assessment of ‘HIV screening not offered’
- Added evaluation of adherence to treatment for cases and contacts
- Data summaries generated from TIMS (2009 Public Health Issue Management System – PHIMS), Contacts Database, and cohort review forms

Modifications:
Timeliness Measures for Cases (1)

Average number of days:
- Sputum collected and received at lab
- Sputum smear + and cavitary CXR to TB medications started
- For cases with MTD testing, sputum collection to TB medications started
Modifications:
Timeliness Measures for Cases (2)
Average number of days:
- Sputum smear + to case reporting from private provider to LHJ
- Sputum smear + to reporting from lab to LHJ
- Sputum smear + to case reporting from LHJ to DOH
- MTB culture + to reporting drug susceptibility from lab to LHJ

Modifications:
Timeliness Measures for Contacts
Average number of days:
- Sputum smear + and cavitary CXR to date contacts identified

Cohort Review Timeline

<table>
<thead>
<tr>
<th>Cohort of cases presented by LHJ PHNs</th>
<th>January Cohort Review</th>
<th>April Cohort Review</th>
<th>July Cohort Review</th>
<th>October Cohort Review</th>
</tr>
</thead>
<tbody>
<tr>
<td>April-June (2nd qtr of previous year)</td>
<td>July-Sept (3rd qtr of previous year)</td>
<td>October-Dec (4th qtr of previous year)</td>
<td>Jan-March (1st qtr of current year)</td>
<td></td>
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</tbody>
</table>
Cohort Review: A Local Health Department Perspective
Tacoma-Pierce County Health Department:
• Population of 805, 400
• Governed by a Board of Health
• Partners with community clinics to provide TB services

Of the 124 TB cases counted in Pierce County from 2003-2007:
• 71% were foreign-born from countries with high endemic rates of TB
• 73% had infectious pulmonary TB
• 15.7% of the cases that had drug sensitivity testing done were INH resistant

Cohort Review: A Local Health Department Perspective (2)

Cohort Review: A Local Health Department Perspective

Annual Number of Cases 1999 - 2008
The TPCHD staff report that since participating in the cohort review process they have:

• established the need to set priorities for program funding and activities
• improved program evaluation with documentation of meeting local and state objectives
• increased case management accountability for both patients and contacts
• identified gaps and barriers to care

Impact of Cohort Review: HIV Testing

- 2000 - 36% of all TB cases did not have an HIV test
- 2008 – 11% of TB cases did not have an HIV test

Impact of Cohort Review: DOT

- 2000 - DOT done on 76.9% of all cases
- 2007 – DOT done on 92% of all cases (100% smear+)
Impact of Cohort Review: Timeliness Measure – LHJ Reporting to DOH

Impact of Cohort Review: Cases With No Contacts Identified

Impact of Cohort Review: Contacts Evaluated
Impact of Cohort Review: Treatment Completion for Contacts

Percentage of Infected Contacts Who Completed Treatment TPCHD

Year

Impact of Cohort Review in WA State:

Percentage of cases on directly observed therapy (DOT), Washington

2001
100%
60%
20%
0%

74% 89% 97% 91% 87%
2003 2004 2005 2006 2007

Impact of Cohort Review in WA State:

Percentage of cases offered an HIV test at the time of TB screening, Washington

2001

78% 87% 94% 93% 92%
2003 2004 2005 2006
Impact of Cohort Review in WA State:
Timeliness Measure – MTD Test

Median number of days between sputum collection to when medication was started by MTD testing, Washington

![Graph showing the median number of days between sputum collection and MTD testing](image)

Impact of Cohort Review in WA State:
Timeliness Measure – LHJ to DOH Reporting

Median number of days between the smear + date and when the LHJ reported the case to DOH, Washington

![Graph showing the median number of days between smear and LHJ reporting](image)

Impact of Cohort Review in WA State:
Timeliness Measure – Drug Susceptibilities

Median number of days between culture + result and when susceptibility results were reported, Washington

![Graph showing the median number of days between culture and susceptibility results](image)
Impact of Cohort Review in WA State: Contacts Identification

Average Number of Days to Identify Contacts Washington, 2003-2006

Summary

Measurable improvement in meeting local, state and national TB objectives through the use of the cohort process

Contacts and References

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