Best Practices in TB Control

Key Activities and Roles in the TB Cohort Review Process

January 20, 2011

Provided by
Global Tuberculosis Institute

Objectives

Upon completion of this seminar, participants will be able to:

- Describe the activities that key personnel do in preparing, conducting, and following up a TB cohort review
- Outline steps for implementing cohort reviews with available staff and resources
- Discuss strategies for identifying and orienting or training appropriate staff for these key activities

Faculty (1)

Bill L. Bower, MPH

Director of Education and Training, Charles P. Felton National TB Center

Assistant Clinical Professor, Heilbrunn Department of Population & Family Health, Mailman School of Public Health, Columbia University

Kim Field, RN, MSN

Section Manager, Tuberculosis Services
Washington State Department of Health

Shu-Hua Wang, MD, MPH & TM

Medical Director, Ben Franklin TB Clinic
TB Consultant, Ohio Department of Health
Assistant Professor, Infectious Diseases, Ohio State University

Faculty (2)

Christina Dogbey, MPH

Epidemiologist
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Supervisory Nurse Coordinator
Bureau of Tuberculosis Control
District of Columbia Department of Health

Agenda

- Introduction, housekeeping – ***Bill Bower***
- Key activities and Roles – ***Bill Bower***
- Program Manager – ***Kim Field***
- Medical Reviewer – ***Shu-Hua Wang***
- Epidemiologist/Data Analyst – ***Christina Dogbey***
- Nurse Case Manager/Supervisor – ***Katie Sisk***
- Planning and Staffing – ***Bill Bower***
- Questions and Answers
- Wrap up

Key Activities and Roles

Bill L. Bower, MPH

Definitions

Cohort Review
A cohort review is a systematic review of the management of patients with TB disease and their contacts. A "cohort" is a group of TB cases counted over a specific period of time and the review occurs after the cases are counted. Cohort review is used as a tool to review patient outcomes and to monitor and evaluate program performance. At a cohort review, cases presented by case managers are examined for the patient's clinical status, the adequacy of the medication regimen, treatment adherence or completion, and the results of contact investigation. Cohort review is currently used in countries around the world and in several U.S. cities and county jurisdictions.

Case Review
A case review is a systematic regular review of individual patient progress presented by the health department employee who is primarily responsible for managing that case. Case review is a fundamental component of case management and thus is an ongoing process for each patient. Plans are made to immediately address any treatment and patient management concerns identified through a case review.

Guidance Regarding the TB Cohort Review Process; CDC; 8/9/2010

Cohort vs. Case Reviews

The Difference between Cohort Reviews and Case Reviews

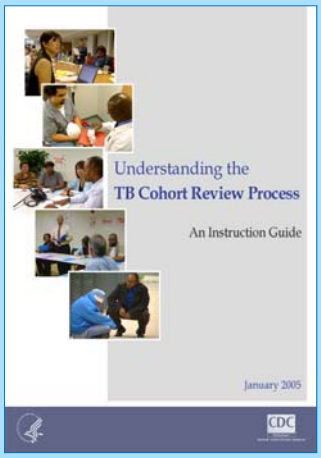
Case reviews are <u>not</u> cohort reviews.

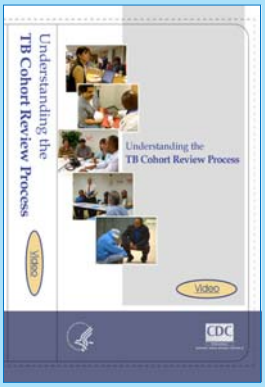
Case reviews are real-time, ongoing, and provide an opportunity to review individual patient specific care. They allow for immediate analysis of a patient's progress and plans to address any needed changes to treatment and management.

Cohort reviews provide an opportunity to review case data to address systemic programmatic concerns regarding the overall management of TB patients in order to improve patient care and programmatic performance and to promote efficiency.
A "cohort" is a group of TB cases counted over a specific period of time, usually 3 months. The cohort cases are reviewed approximately 6-9 months after they are counted. Therefore, many of the cohort cases have completed or are at near completion of treatment.

Guidance Regarding the TB Cohort Review Process; CDC; 8/9/2010

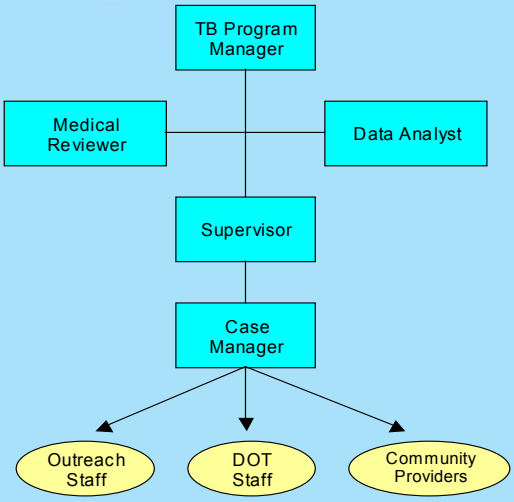
Background Resources





www.cdc.gov/tb/education/cohort.htm
www.cdc.gov/tb/publications/guidestoolkits/cohort/Cohort.pdf

Activities and Roles



Activities of staff are detailed in p. 4-9 of the CDC Instruction Guide

What do people do during the

Cohort Review Process

Preparation | **Presentation** | **Follow up**

Cohort Review Process: Activities of the Program Manager

Kim Field, RN, MSN
Washington State Department of Health
Section Manager, Tuberculosis Services

Preparing for a Cohort Review

- Demonstrate commitment
- Explain reasons for undertaking cohort reviews
- Develop tools and train staff

Conducting the Cohort Review Presentation

- Foster safe and productive atmosphere
- Listen to all case presentations to identify strengths and weaknesses
- Ask questions to clarify
- Use case experience to teach knowledge and skills for effective TB control

Following Up After Cohort Review

- Address issues raised
- Continue staff education

Tips for Getting Started (1)

- Many programs have adapted the principles of cohort review to their staffing, resources and political realities – learn from them
- Break the implementation into steps so it is not too overwhelming
- Emphasize that staff are already doing most of the work anyway – this will just add a systematic way of summarizing and learning

Tips for Getting Started (2)

- You may have to 'think outside the box' to identify people who can do the needed activities, given scare resources
- No surprises – make it very clear what performance measures you will be looking at and where the program stands on these

Activities of the Medical Reviewer in the TB Cohort Review Process

Shu-Hua Wang, MD, MPH&TM

Medical Director, Ben Franklin TB Control Program
Medical TB Consultant, Ohio Department of Health
Assistant Professor of Medicine, The Ohio State University

www.publichealth.columbus.gov

Preparation to Develop a Cohort Review Process (1)

Program Manager

#1

Preparation to Develop Cohort Review Process (2)

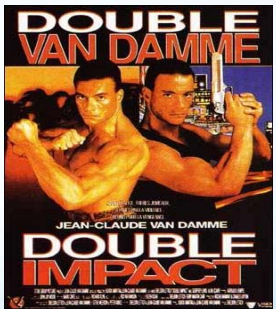
Cohort Review ≠ Case Review

Cohort Review ≠ Contact Investigation

Administrative reviews of cases and contacts

↓

Quantitative difference to program review and treatment outcome!



Preparation Prior to Cohort Review (1)

- Demonstrate commitment to the cohort review process
- Ensure staff at all levels understand the reasons for undertaking cohort reviews

Preparation Prior to Cohort Review (2)

*"The fundamental concept of a cohort review is **accountability**.*

***Staff** are accountable to supervisors and to the program for how well they are **caring for patients**...*

*and the **program** is accountable to patients and to the public for **controlling TB**."*

Thomas Frieden, MD, MPH
Director of CDC
Former New York City Commissioner of Health

Photo by David Lubarsky
http://www.governing.com/poy/thomas-frieden.html

Preparation Prior to Cohort Review (3)

Know the program's objectives!:

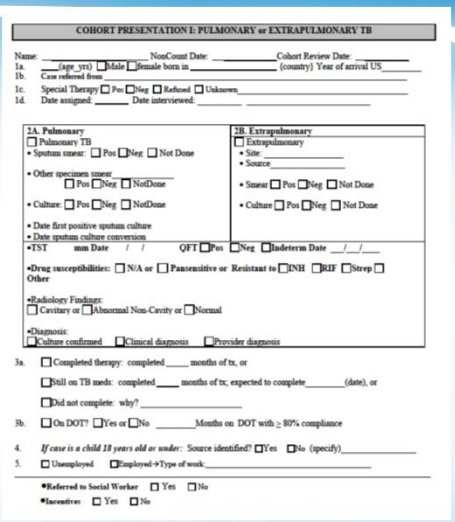
CDC National TB Program Objectives	• At least **90% of confirmed TB** patients will **complete treatment** within 365 days. • At least **90% of TB patients with positive AFB sputum-smear** results will have contacts identified. • At least **95% of contacts to** TB patients with positive AFB sputum-smear results will be **evaluated.** • At least **85% of infected contacts** who are started **on treatment for LTBI** will complete treatment within 365 days.
State level objectives for TB Control	**?**
Local level objectives for TB Control	**?**

During Cohort Review Presentations (1)

- Listen carefully to all case presentations
- Review available support documents
  - TB registry, case management forms, medical records
- Ensure that all aspects of case management adhere to department of health policies and procedures

During Cohort Review Presentations (2)

- Review of cases:
  - Activities are complete in a timely manner
    - Date case was assigned
    - Date case interviewed
  - Data are complete
    - Date of birth,
    - Entry to US,
    - HIV status



COHORT PRESENTATION I: PULMONARY or EXTRAPULMONARY TB

Name: _____ NonCount Date: _____ Cohort Review Date: _____
1a. ___(age yrs) ☐Male ☐female born in _____ (country) Year of arrival US_____
1b. Case referred from _____
1c. Special Therapy ☐ Pos ☐Neg ☐ Refused ☐ Unknown_____
1d. Date assigned: _____ Date interviewed: _____ _____

2A. Pulmonary	2B. Extrapulmonary
☐ Pulmonary TB • Sputum smear: ☐ Pos ☐Neg ☐ Not Done • Other specimen smear _____ ☐ Pos ☐Neg ☐ NotDone • Culture: ☐ Pos ☐Neg ☐ NotDone • Date first positive sputum culture • Date sputum culture conversion	☐ Extrapulmonary • Site: _____ • Source_____ • Smear ☐ Pos ☐Neg ☐ Not Done • Culture ☐ Pos ☐Neg ☐ Not Done

•TST mm Date / / QFT ☐Pos ☐Neg ☐Indeterm Date __/__/__
•Drug susceptibilities: ☐ N/A or ☐ Pansensitive or Resistant to ☐INH ☐RIF ☐Strep ☐ Other
•Radiology Findings:
☐ Cavitary or ☐Abnormal Non-Cavity or ☐Normal
•Diagnosis:
☐Culture confirmed ☐Clinical diagnosis ☐Provider diagnosis

3a. ☐Completed therapy: completed ____ months of tx, or
☐Still on TB meds: completed ____ months of tx; expected to complete _____(date), or
☐Did not complete: why? _____
3b. ☐On DOT? ☐Yes or ☐No _____Months on DOT with ≥ 80% compliance
4. *If case is a child 18 years old or under:* Source identified? ☐Yes ☐No (specify)_____
5. ☐ Unemployed ☐Employed→Type of work:_____
•Referred to Social Worker ☐ Yes ☐ No
•Incentives: ☐ Yes ☐ No

During cohort review presentations (3)

- Review case, diagnosis and treatment:
  - Pulmonary or extrapulmonary
  - Culture confirmed or clinical case
  - Tuberculin skin test, interferon gamma release assays
  - Nucleic acid amplification tests
  - AFB smear/culture result
  - Drug regimen is appropriate
  - Drug susceptibility results are obtained
  - Drug regimens are adjusted if necessary
  - Sputum conversions are documented
  - Treatment completions are documented

During cohort review presentations (4)

- Review contact investigations
  - Number of contacts identified
  - Number of contacts evaluated
  - Number diagnosed with active TB disease or latent TB infection (LTBI)
  - Number started on LTBI treatment
  - Number completing LTBI treatment
- ***Reasons why*** *contacts not evaluated or LTBI treatment not completed*

During cohort review presentations (5)

- Ask questions of clarification to make sure policies and procedures were followed and the outcome is satisfactory. Clarify:
  - Lapses in following protocols
  - Missing or incorrect information
  - Action taken to prevent their occurrence in future reviews

During cohort review presentations (6)

- Assess outcomes
- Use teachable moments to illustrate important lessons in effective TB control
  - Use specific cases as examples of how certain problems should be handled
  - Give feedback to staff and
  - Update staff on policies, protocols, and scientific changes

Follow up after cohort review (1)

- Ensure that medical management issues and programmatic problems are addressed
  - Provide medical consultation for any problems identified
- Ensure that ongoing follow-up staff education includes
  - Program strengths and weaknesses identified during cohort review

Successful cohort review

Double Rainbow!

The medical reviewer assists in…

- Improving patient care
- Improving TB control program
- Improving public health

…first steps toward TB elimination

Thank you!

Ben Franklin TB Control Program Staff

Activities of the Epidemiologist in the Cohort Review Process

M. Christina Dogbey, MPH
Philadelphia Department of Public Health
Tuberculosis Control Program

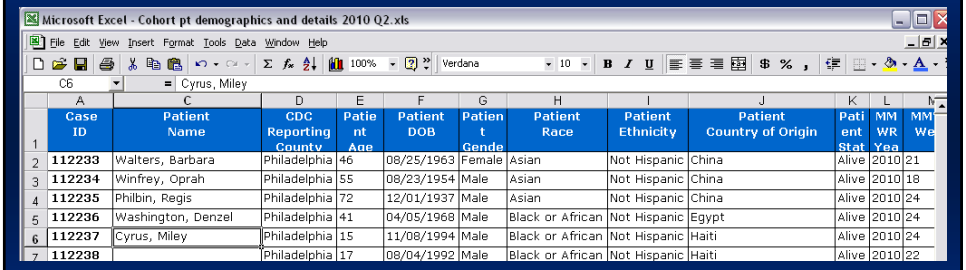
The Philadelphia Experience

- Conducting cohort reviews since 2005
- Expected and anticipated part of our program
  - Staff looks forward to it
- From an epi/ data analyst perspective, makes writing annual reports and fulfilling data requests easier
- We have been able to modify pieces of cohort to fit our program objectives and what we want to measure

Epidemiologist or Data Analyst is responsible for:

- Before Cohort
  - Preparing and distributing the list of cases for review
  - Collecting demographic information about the cohort for presentation
  - Preparing and pre-populating the spreadsheet with data

Line List of Patients for Cohort



Microsoft Excel - Cohort pt demographics and details 2010 Q2.xls

File Edit View Insert Format Tools Data Window Help

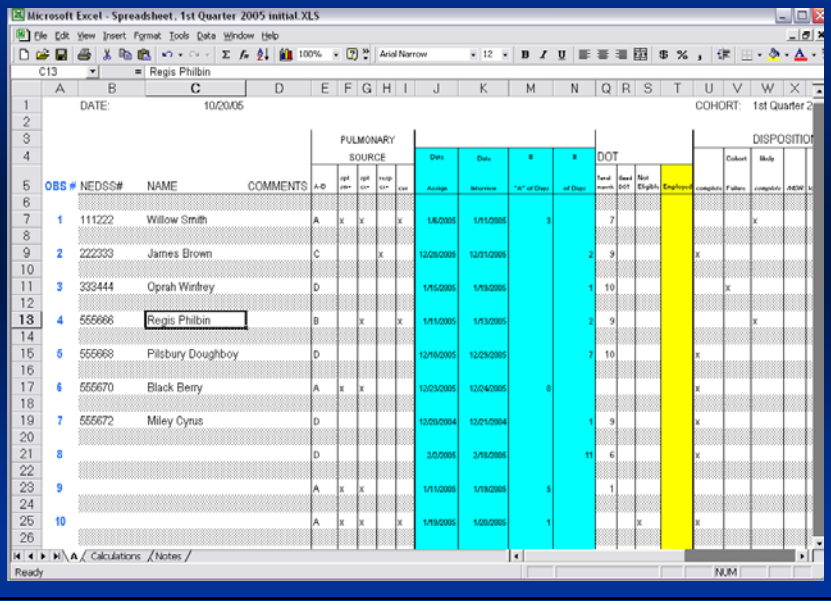
C6 = Cyrus, Miley

	A	C	D	E	F	G	H	I	J	K	L	N
1	Case ID	Patient Name	CDC Reporting County	Patient Age	Patient DOB	Patient Gende	Patient Race	Patient Ethnicity	Patient Country of Origin	Patient Stat	MMWR Yea	MMWR We
2	112233	Walters, Barbara	Philadelphia	46	08/25/1963	Female	Asian	Not Hispanic	China	Alive	2010	21
3	112234	Winfrey, Oprah	Philadelphia	55	08/23/1954	Male	Asian	Not Hispanic	China	Alive	2010	18
4	112235	Philbin, Regis	Philadelphia	72	12/01/1937	Male	Asian	Not Hispanic	China	Alive	2010	24
5	112236	Washington, Denzel	Philadelphia	41	04/05/1968	Male	Black or African	Not Hispanic	Egypt	Alive	2010	24
6	112237	Cyrus, Miley	Philadelphia	15	11/08/1994	Male	Black or African	Not Hispanic	Haiti	Alive	2010	24
7	112238		Philadelphia	17	08/04/1992	Male	Black or African	Not Hispanic	Haiti	Alive	2010	22

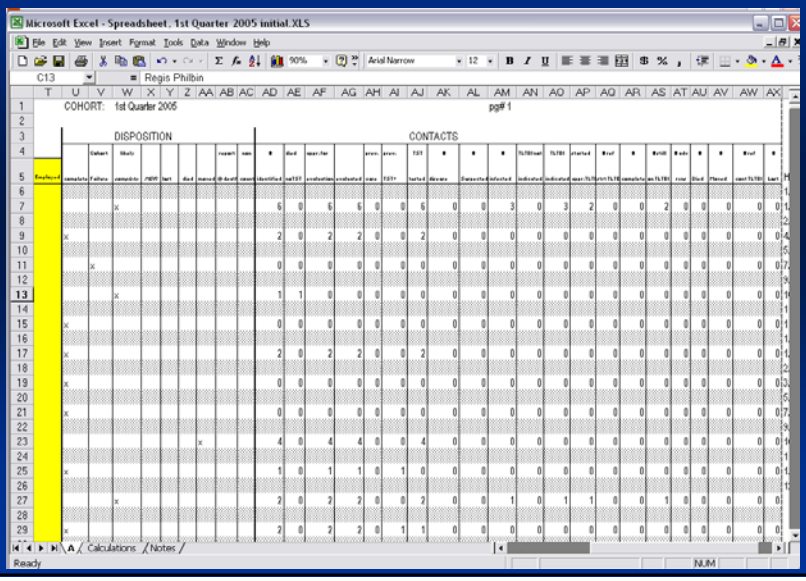
Epidemiologist or Data Analyst is responsible for:

- During Cohort
  - Presenting information on the demographic and clinical characteristics of the cohort *as a whole*
  - Listening to each case presentation and updating information on the spreadsheet for each patient
  - Recording issues that arise– regarding individual patients and overall program policies
  - Calculating rates for completion of therapy, contacts, etc.
  - Reporting the results of the cohort back to the team and comparing them to goals and objectives

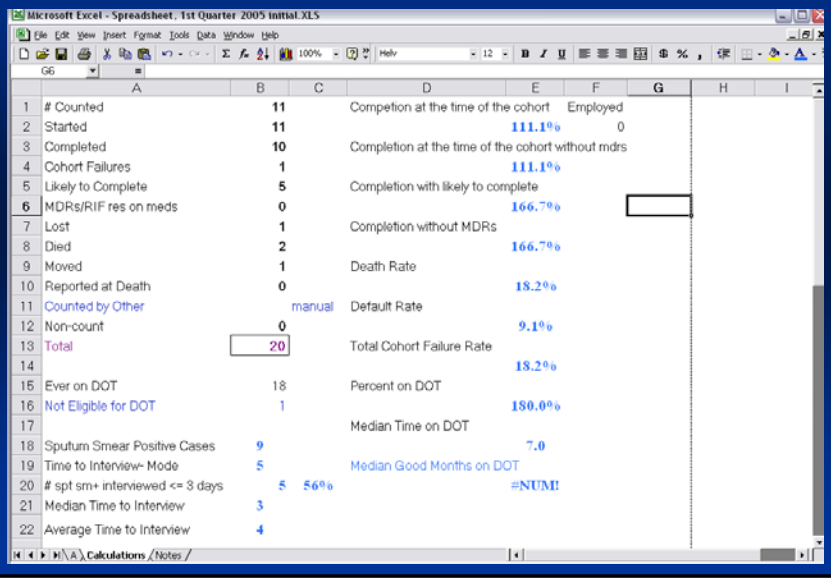
Cohort Spreadsheet 1



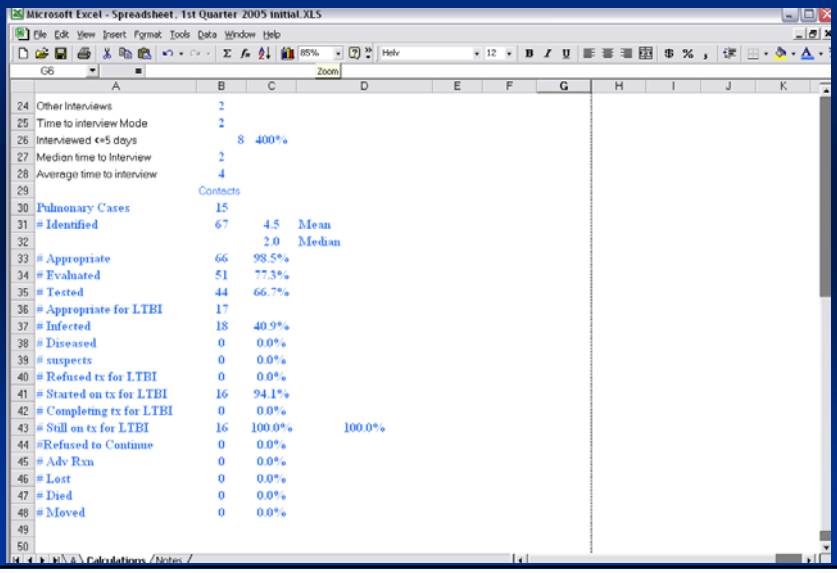
Cohort Spreadsheet 2: Disposition and Contacts



Cohort Spreadsheet 3: Calculations Page, Pt. 1



Cohort Spreadsheet 4: Calculations Page, Pt. 2



Microsoft Excel - Spreadsheet, 1st Quarter 2005 initial.XLS

	A	B	C	D
24	Other Interviews	2		
25	Time to interview Mode	2		
26	Interviewed <=5 days	8	400%	
27	Median time to Interview	2		
28	Average time to interview	4		
29		Contacts		
30	Pulmonary Cases	15		
31	# Identified	67	4.5	Mean
32			2.0	Median
33	# Appropriate	66	98.5%	
34	# Evaluated	51	77.3%	
35	# Tested	44	66.7%	
36	# Appropriate for LTBI	17		
37	# Infected	18	40.9%	
38	# Diseased	0	0.0%	
39	# suspects	0	0.0%	
40	# Refused tx for LTBI	0	0.0%	
41	# Started on tx for LTBI	16	94.1%	
42	# Completing tx for LTBI	0	0.0%	
43	# Still on tx for LTBI	16	100.0%	100.0%
44	#Refused to Continue	0	0.0%	
45	# Adv Rxn	0	0.0%	
46	# Lost	0	0.0%	
47	# Died	0	0.0%	
48	# Moved	0	0.0%	

Epidemiologist or Data Analyst is responsible for:

- After cohort
  - Summarizing results and disseminating them to the team
  - Beginning the process of following up on issues
  - Preparing the list of cases for the next cohort review

Why it works

- Simple and straightforward
  - Process is easy to master
  - "Buildable"- once you start, build on previous cohorts
  - Calculations can be done by hand or in Excel
- Adaptable to different program models
- Everyone leaves the meeting knowing exactly how the program performed

Case Management and Cohort Review

Mary Katie Sisk, RN, CIC
Nursing Supervisor
Bureau of TB Control, Washington DC
1/20/11

Objectives

- Identify means of translating daily work activities to the cohort review process
- Define pre-cohort review preparation steps for case managers and supervisor
- Identify means to facilitate staff buy in

First Things First

- Development of cohort sheets – make them work for you
- Have clear documented definitions for terms used on cohort sheets
- **Cohort review should not be burdensome** – It is not additional work but a summation of all work done on a case; information should be easily obtained from your case report and clinic records

Steps to Cohort Review

- Step One: Preparation
- Step Two: Practice and Review
- Step Three: Cohort Review
- Step Four: Aftermath or Follow-up Cohort Review

Step One: Preparation

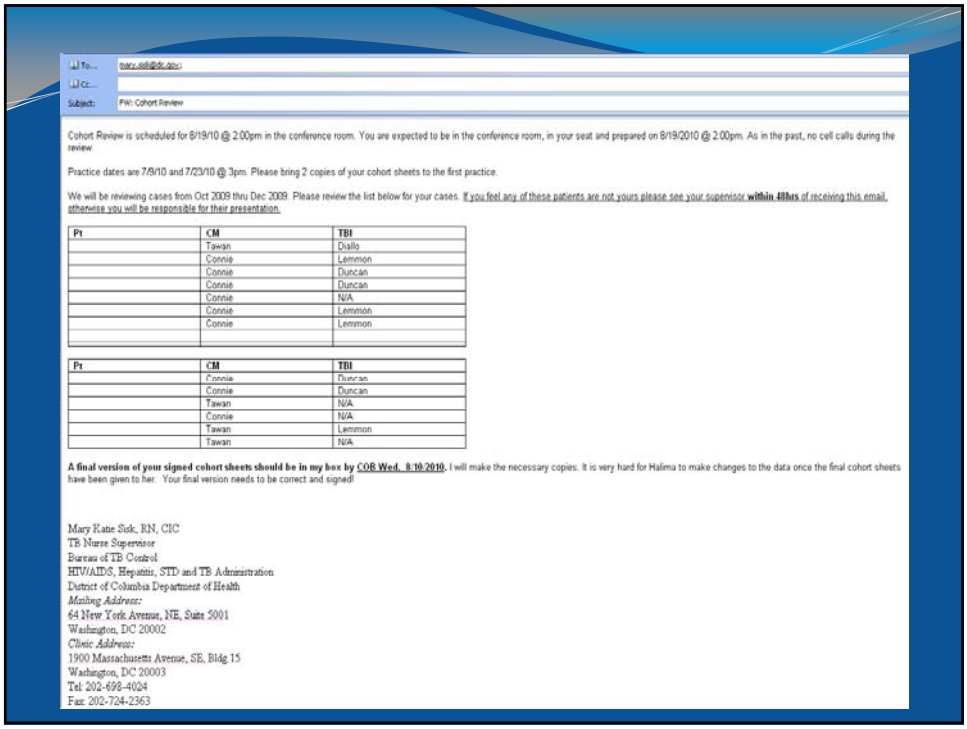
- Selection of patient group to be reviewed
- Notification of staff:
    1. Staff / patient selection
    2. Cohort practice time and location
    3. Cohort review time and location
- Preparation of cohort sheets

Selection of Patients

- Define patient cohort group as determined by program case numbers and/ or needs (number of patients / months/ quarters)
- Define staff who were responsible for case work; this will vary program to program

Notification of Staff

- Adequate notification – Currently the DC program sends out next cohort notice within 2 weeks of preceding cohort
- Notification is via email using a line listing; designates which staff member will be responsible for reporting during the cohort review



To...
Cc...
Subject: FW: Cohort Review

Cohort Review is scheduled for 8/19/10 @ 2:00pm in the conference room. You are expected to be in the conference room, in your seat and prepared on 8/19/2010 @ 2:00pm. As in the past, no cell calls during the review.

Practice dates are 7/9/10 and 7/23/10 @ 3pm. Please bring 2 copies of your cohort sheets to the first practice.

We will be reviewing cases from Oct 2009 thru Dec 2009. Please review the list below for your cases. If you feel any of these patients are not yours please see your supervisor **within 48hrs** of receiving this email, otherwise you will be responsible for their presentation.

Pt	CM	TBI
	Tawan	Diallo
	Connie	Lemmon
	Connie	Duncan
	Connie	Duncan
	Connie	N/A
	Connie	Lemmon
	Connie	Lemmon

Pt	CM	TBI
	Connie	Duncan
	Connie	Duncan
	Tawan	N/A
	Connie	N/A
	Tawan	Lemmon
	Tawan	N/A

A final version of your signed cohort sheets should be in my box by COB Wed. 8/10/2010. I will make the necessary copies. It is very hard for Halima to make changes to the data once the final cohort sheets have been given to her. Your final version needs to be correct and signed!

Mary Katie Sirk, RN, CIC
TB Nurse Supervisor
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Preparation of Cohort Sheets

TB programs basically collect the same information; our processes might be different but the information needed should be available.

- Begin completing the form as you begin working the case, it saves time
- Most of the case information will be complete or near completion at time of the review
- It allows for a final review of case
- It should take approximately 10 minutes to complete a review sheet

Notes, Definitions and Special Cases

1. If patient is taking medication for HIV or any other medical conditions, specify yes or no
2. Report positive sputum smears regardless of the culture's result
3. A disease site in the respiratory system includes the airways
4. Use this section to present the following cases that **do not meet the 2a or 2b criteria:** culture negative, cavitary, respiratory culture positive, no sputum smear done; and pediatric cases (cases under 4 years old at TB diagnosis). For culture negative cases without a positive sputum smear or cavitary chest x-ray; use Cohort Presentation II: Clinically Confirmed or Extrapulmonary
5. **Chest x-rays** are reported cavitary, non-cavitary, or normal. Do not report x-ray dates or results of follow-up x-rays
6. If patient is not likely to complete medication within 12 months, be prepared to explain.
7. Do not list medications. However, be prepared to discuss if case is MDR, rifampin resistant, taking a protease inhibitor/NNRTI, or if regimen is unusual
8. A case can only be closed as moved if an interstate has been done
9. If adherence for any period has been below 80%, state so and be prepared to explain
10. For patients on self-administered treatment, present a review of pharmacy records to assess treatment adherence
11. Be prepared to present the source case and associate contact investigation, including whether this child was listed as a contact n the contact investigation for the source case
12. "Contacts identified" include all true contacts with legitimate names and addresses
13. Contacts "inappropriate for evaluation" will be subtracted from the contacts identified to determine the number appropriate for evaluation
14. Contacts "appropriate for evaluation" include all legitimate contacts identified who were not counted as "died prior to testing."
15. "Evaluated" is defined as 1) TST positive, CXR completed, and sputum collected if indicated; 2) TST placed and read after the end of the window period; or 3) contacts with documentation of previous diagnosed disease or LTBI – even if no further tests and exams are done. If previous LTBI starts on treatment, do not include these contacts under "appropriate for treatment of latent TB infection" section. Report only the number evaluated. Do not report the number of contacts who were UTL, who moved more than 60 days after being identified and were not evaluated, or who refused. These explanations may come up in discussion, but are not part of the standard format. Post-window period testing is only required for TST-negative contacts.
16. All suspects must be reclassified to either "infected with disease" or "infected without disease" within four months of the initiation of treatment.
17. Contacts "appropriate for treatment of latent TB infection" include all TST+ contacts recommended for medical follow-up for whom treatment is medically indicated. Persons identified during a contact investigation who need treatment, but were TST negative or prior TST+ will be excluded from this number. Be prepared to explain.
18. Report the number who started treatment for LTBI. Do not report the number of people who did ***not*** start treatment for LTBI; however, be prepared to explain. Do not report people who were found not to have latent TB infection. Provide updated information on those contacts who share treatment for LTBI.
19. It is important to be familiar with:
    a. Patient's adherence history, latest DOT status, dates of DOT requests/outcomes
    b. Patient's occupation and residence settings, particularly if patient is homeless
    c. Where contact with others occurred and how often
    d. When contacts were evaluated in relation to patient's last positive smear
    e. If source case investigation was conducted and results, including relationship of this to any other known cases
    f. Evaluations of sex/needle-sharing partners of HIV positive patients; also, are there any HIV positive contacts
    g. Status of treatment for LTBI when appropriate, including window prophylaxis
    h. If and when expanded contact testing occurred and results of investigation

DOH DEPARTMENT OF HEALTH Promote. Prevent. Protect.

COHORT PRESENTATION I: PULMONARY or LARYNGEAL TB

1. Name: _____ TIMS ID: _____
_____ years-old _____ (male/female), born in _____ (country). Year arrived in U.S. _____
Class A, B1, B2 _____ (yes / no), HIV _____ (+ / - / refused / unknown). Date of HIV Test _____
Medications for HIV or other medical conditions[1] _____ Risk factors _____
Date TB Control was notified: _____

2a. Sputum Smear Positive[2], Pulmonary[3]	**2b. Sputum Smear Negative, Sputum Culture Positive**	**2c. Other:** (Pediatric, Pleural, other respiratory culture positive, cavitary; culture negative) [4]
a. □ Pulmonary[3] TB □ (Both) Pulmonary & Extra-pulmonary _____ (site)	a. □ Pulmonary[3] TB □ (Both) Pulmonary & Extra-pulmonary _____ (site)	a. □ Pulmonary[3] TB □ (Both) Pulmonary & Extra-pulmonary _____ (site)
b. Sputum smear positive (many, few, rare, +1, +2, +3) _____	b. Sputum smear negative	b. Smear status (+, -, not done)
Date of collection _____	Date _____	Date _____
Date of result _____	c. Sputum culture positive	c. Culture (+, -, not done)
c. Culture (+, -, not done) _____	Date _____	Date _____
Date _____	e. Culture Conversion Date _____	d. If culture positive, source
d. If culture positive, source _____	d. Date assigned _____	_____
e. Culture Conversion Date _____	f. Date interviewed _____	e. Date assigned _____
f. Date assigned _____	If > 5 days for interview – state reason	f. Date interviewed _____
g. Date interviewed _____	_____	If > 5 days for interview – state reason
If > 3 days for interview – state reason		_____
_____		

Drug Suscept. Results: □ Pan-sensitive □ MDR □ INH resistant □ Rifampin resistant □ Other Resistance _____ □ Not done
Chest Radiograph Results: □ Cavitary[5] □ (Abnormal) Non-Cavitary □ Normal CXR

3a. Treatment outcome at time of cohort

Treatment Start Date _____ Treatment Complete Date_____	Completed therapy? □ Yes □ No If no, Likely to complete within 12 months? □Yes □No[6] Taking TB Medications? [7] □ No □ Yes If yes, completed _____ months of treatment

Did not complete treatment (reason): □ Refused □ Lost □ Died □ Reported at Death □ Moved[8] Where: _____
Date of Inter-jurisdictional referral :

3b. On DOT: YES or NO (circle) If YES: _____ total number of months on DOT; _____months on DOT with ≥ 80% compliance[9]
If NO DOT, why not: _____ □ compliance checks [10] done

4. ***If case is a child 5 years or under:*** Was the source identified? [11]_____ Name_____ TIMS ID: _____

5a. Contacts

_____# Identified[12] _____# Inappropriate for evaluation (Died prior to end of Window Period) [13]
_____# Appropriate for evaluation[14]
_____# Evaluated[15]

Previous status

_____# Active TB _____ Months adequately treated
_____# LTBI (prior TST+, no disease)

Current status

_____ # all negative
_____ # Active TB: Name: _____ State ID #: _____
_____# Suspect[16]: Name: _____ State ID #: _____
_____# LTBI (new TST+, no disease)

Appropriate for treatment of latent TB infection (LTBI) [17] out of current status LTBI'S only. (NO WINDOW PROPHY)

_____# Started treatment for LTBI[18]
_____# Completed treatment for LTBI
_____# Current to care
_____# Discontinued treatment for LTBI due to
_____# adverse reactions to medications
_____# Died
_____# Moved
_____# Refused to continue treatment for LTBI
_____# Lost to follow-up

5b. Employed: ▫ No ▫ Yes If Yes, Type of Work: _____
Was an ECI (Extended Contact Investigation) associated with this case? ▫ No ▫ Yes ECI site and results: _____

Date: _____ CM: _____ TBI: _____

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COHORT PRESENTATION II: CLINICALLY CONFIRMED or EXTRAPULMONARY TB CASE

1. Name: _____ TIMS ID: _____
_____ years-old _____ (male/female), born in _____ (country). Class A, B1, B2 _____
HIV _____ (+/-/refused/unknown) Date Assigned _____ Date Interviewed _____
If > 5 days for interview – state reason _____
Medications for HIV or other medical conditions: _____ Risk factors_____
Ex. (Drug use, ETOH, homeless,etc.) Date when TB Control notified: _____

▫ **Clinically confirmed, pulmonary, smear negative, culture negative, non-cavitary**[2].

▫ Extra pulmonary only: Site of disease_____

▫ Pan-sensitive ▫ MDR ▫INH resistant ▫ Rifampin resistant ▫ Other resistance _____ ▫ Not done

Treatment Start Date:_____ Completed therapy : ▫ Yes ▫ No

▫ Currently taking TB medications[3]

Clinical: Has completed _____ calendar months of treatment.

Extra-pulmonary: Has completed _____ calendar months of treatment.

Likely to complete therapy within 12 months? ▫ Yes ▫ No[4]

▫ Did not complete therapy

Reason patient did not complete: Refused Lost Died Moved[5] Reported at death

ON DOT: YES *or* NO (circle)
If YES : _____ total number of months on DOT

If NO DOT, why not: _____

Compliance checks[6] done _____

Skip contacts. (If case is under 5 years old then the COHORT PRESENTATION FORM I is to be used.)

2. Discussion (7)

Notes:
1. If patient is taking medication for HIV, such as a protease inhibitor or non-nucleoside reverse transcriptase inhibitors (NNRTI's) or medication for any other medical condition, specify the name of the medication.
2. If the patient has pulmonary disease and has either positive sputum AFB smear or a cavitary chest x-ray then use Cohort Presentation Form I: Pulmonary or Laryngeal TB
3. Do not list medications. However, be prepared to discuss if case MDR or regimen is unusual.
4. If the patient is not likely to complete medication within 12 months, be prepared to explain.
5. A case can only be closed as moved if an Interstate Jurisdictional has been done.
6. For patients on self-administered treatment, present a review of pharmacy records to asses treatment adherence.
7. It is important to be familiar with:
   - Adherence history;
   - Patient's occupation and residence settings, particularly if patient is homeless
   - Results from any contact investigation that may have been conducted before culture results were available, particularly if any HIV positive contacts were identified.

Date: _____ CM: _____ TBI: _____

Step Two: Cohort Practice

- Determine number of practice sessions
- Conduct practice as you would an actual cohort review
- Case managers provide copies of sheets to supervisors prior to 1st practice
- Supervisors review sheets prior to practice for missing or conflicting information
- Practice is conducted 3 weeks prior to actual review

Cohort Practice

- Cases are called in the order listed in notification
- Supervisors act as medical reviewers
- Staff are given 1 week to make changes and return corrected sheets to supervisors
- A 2nd practice session is held 2 weeks prior to actual cohort (if needed)
- 1 week prior to cohort review the sheets are forwarded for data entry

Step Three: Cohort Review

- A formal process
- No drinks, cell phones on mute
- No paperwork other than cohort sheets
- **Remember this is not case management!** It is not the daily management of the patient but a summation of the care provided to index and contacts
- Allow all of staff to participate in discussing data results

Step Four: Aftermath of Cohort

- Post your data
- Obtain or clarify missing information
- Select indicators that need improvement
- Select actions to initiate / implement these actions – What process will you use? How will you evaluate results?
- Document results of implementation – Did you get the desired results?
- Begin prep for next cohort review

Selling Cohort

- Pick several cohort review champions
- Enlist all of staff (interns, clerks, nurses, investigators, registry, etc.)
- Include all staff in training, everyone will then understand where they "fit in"
- Highlight the benefits to program and staff
- Remember not everyone likes change, but change we must!

Planning and Staffing

Bill L. Bower, MPH

Planning

- **How to Tailor Cohort Review to Local Program Areas (p 53-57)**
  - ❑Establishing Political and Management Commitment
  - ❑Modifying the Elements of the Cohort Review Process

Exercises for Planning and Training (1)

Exercise 1: TB Program Self Assessment

Essential Elements of the Cohort Review Process			
What are you already doing?	YES	NO	What may need to be enhanced in order for you to conduct a cohort review:
1. Preparation			
• Ensuring that TB program staff know TB program objectives			• Delineate national, state, and local objectives for your program • Communicate these objectives to all TB program staff
• Using a comprehensive case management system			• Ensure that case management protocols are clearly written, comprehensive, and practical for staff to implement
• Using a reliable TB registry			• Specify data elements that need to be collected to evaluate program objectives • Ensure that staff update registry information regularly • Use the registry to generate cohort lists for TB control team members
• Carefully preparing cases for presentation			• Use periodic case reviews to ensure that case and contact information needed for the cohort review is collected • Consider adding practice sessions to hone case presentation skills • Implement a standard form and presentation format to ensure consistent, concise, and complete presentations
2. Presentation			
• Presenting each case in detail to the TB control team			• Allow team members sufficient time to analyze and evaluate TB cases and contact investigations
• Providing on-the-spot feedback to staff, troubleshooting, and aggregate reporting			• Allow time for troubleshooting of case management issues • Develop a standard format for aggregate reporting of data
3. Follow-up			
• Following up on noted problems			• Team members use information gathered at cohort review to follow up on cases and contact investigations, address staff training issues, and solve programmatic problems

TB Program Self Assessment Exercise can help you identify aspects of your program that may need to be enhanced in order to conduct a cohort review (p.13)

Exercises for Planning and Training (2)

1. TB Program Self Assessment
2. Developing TB Program Objectives
3. Reviewing Case Management Protocols
4. Completing Forms for Cohort Review
5. Practice Presentation and Review of Cases
6. Calculation of Indices/Rates for Treatment of TB Disease
7. Calculation of Indices for Contact Investigation

Implementation Handout

ACTION	WHO	WHEN	STATUS
Decide whether to adopt a "plug and play" approach or spend months tailoring the process and forms to your specific program			
Decide on a face-to-face model, opt for distance communication, or a hybrid model			
Have cohort presentation forms and a spreadsheet or database ready			
Train local case managers and supervisors who would make the case presentations			
Make sure the persons responsible for key activities (e.g. roles of program director, medical reviewer, data analyst, supervisor) know what is expected			
Send case managers a list of the cases they will be presenting on a given date			
Provide any supervision, oversight of case management, and/or mock cohort review practice sessions they deem necessary			
Arrange for the time and presence of a clinical reviewer and data analyst/epidemiologist			
Arrange for appropriate meeting space and/or teleconference capability, depending on the model chosen			
Plan how follow-up of issues raised will be tracked			

People

- **Staffing**
  - ❑ Identifying the right people
  - ❑ Orienting them to the process
  - ❑ Training as needed

Questions & Discussion






Thank you for your participation!!