

Toolkit for Assuring Universal HIV Testing of Tuberculosis (TB) Cases

**By 2015, Achieve
National Target:
89% of TB Cases
Have a Known
HIV Status**

**Strengthen TB
Program Capacity
to Achieve
Universal HIV
Testing**

**Demonstrate
Achievement by
Completeness of
HIV Status
on RVCT**

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Tuberculosis Control Branch**



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*Report of a Verified Case of Tuberculosis (RVCT)

Toolkit at a Glance

Universal HIV Testing of TB Cases is Best Practice

It is well known that tuberculosis (TB) is an Acquired Immune Deficiency Syndrome (AIDS)-defining disease and that the risk of death for an untreated Human Immunodeficiency Virus (HIV)-infected person with TB is four times greater than for an HIV-negative person with TB. In addition, persons with HIV and TB infection have a risk of progressing to active TB disease of approximately 10% per year. For these reasons, determining HIV status is a national recommendation to ensure optimal treatment of TB and HIV infection and appropriate referrals for HIV/AIDS services. All California TB programs should endeavor to achieve universal HIV testing of TB cases.

HIV testing of TB cases is the standard of care for medical evaluation, treatment, and case management. The Joint California Department of Public Health (CDPH)/California TB Controllers Association (CTCA) TB Treatment Guideline, states testing for HIV infection should occur at the time of TB diagnosis,¹ unless the individual: 1) is known to be HIV-positive or 2) has a negative test result that was documented within the previous six months. The prevalence of HIV infection among TB cases in California was between 3.9% – 5.1% from 2005 through 2011.²

Streamlined HIV Testing in Health Care Settings

Universal HIV testing in medical settings using an opt-out method was recommended by the Centers for Disease Control and Prevention (CDC) in 2006.³ General medical consent, as for other laboratory testing, is considered sufficient to perform the test. In 2008, opt-out HIV testing became legal in California,⁴ (although children under 12 still need a signed consent from a parent or guardian for an HIV test).⁵ Providers are required under California law⁶ to advise the patient that the test is planned, provide test information, inform about HIV treatment options, and advise about right of refusal.

In 2011 HIV status became reportable in California on the Report of a Verified Case of Tuberculosis (RVCT). Annual reporting of HIV status known for each jurisdiction will appear in the *Report on Tuberculosis in California*.⁷ The CDC National TB Indicators Program target for HIV testing of TB cases is 88.7% (89%) by 2015.⁸

Tools for the TB Program and Clinic

The *Toolkit for Assuring Universal HIV Testing of TB Cases* is designed to help local TB programs and clinics achieve universal HIV testing of TB cases. The CDPH Tuberculosis Control Branch (TBCB) identified HIV testing program components, developed tools, and customized an action planning process for local TB staff.

¹ CTCA CDHS/CTCA Guidelines for the Treatment of Active Tuberculosis Disease, 2003.

² *Report on Tuberculosis in California, 2012*. CDPH/TBCB. www.cdph.ca.gov/programs/tb/Documents/TBCB_Report_2012.pdf

³ CDC Revised HIV Testing guidelines, *MMWR* Sept 2006;55(RR-14):1-17

⁴ *Assembly Bill 682: Providing for HIV Testing in California Without Written Consent*, Jan. 2008, HSC 120990.

⁵ *Assembly Bill 682: Providing for HIV Testing in California Without Written Consent*, Jan. 2008, HSC 121020.

⁶ *Op. cit.*, HSC 120990.

⁷ Available on the TB Branch Web site: <http://www.cdph.ca.gov/programs/tb/Pages/default.aspx>

⁸ *National TB Indicators Program Objectives and Performance Targets for 2015*, CDC, January 2009.

Integrating review of HIV status and incorporating quality assurance (QA) processes may help to achieve a universal approach to HIV testing of TB cases. The toolkit is structured so that discrete steps and tools can be used individually, as a set, or adapted for local use. CDPH TBCB Program and Epidemiology Liaisons can also assist to implement the *Toolkit* for local program assessment and improvement.

Since resources and needs vary by local health jurisdiction, this toolkit may lack specific tools or resources necessary to implement universal HIV testing of TB cases locally. The TBCB welcomes feedback from users so that the toolkit can continue to be improved. Comments or locally developed tools can be sent to TB Branch Program Liaisons using the *Toolkit Feedback Form* in the appendix.

Getting Started

To get started, review your data from RVCT Question 26 on “HIV status at time of diagnosis” to assess the percentage of TB cases with known HIV status. Review processes and tools are grouped around three focus areas.

Focus A: Assess Program Components

- TB Program Components for Universal HIV Testing
Program level components include policies and procedures, staff training, and patient education. Assuring that HIV status is determined can be integrated into existing routine patient-level management processes throughout the continuum of TB care, such as reviewing the case intake form, discussing HIV status at case management and DOT conferences, and examining HIV status outcomes during cohort review.
- Completeness of HIV status reporting for all TB cases
TB programs may assess their HIV testing performance by reviewing their RVCT data. When HIV status of cases is unknown, a sample chart review tool can help investigate the reasons for unknown status.
- RVCT Data Analysis
Detailed analysis of RVCT data that include patient demographics or provider type, for example, can provide additional information to identify HIV testing barriers and potential solutions.

Focus B: Program Development

To improve the completeness of HIV status determination of all TB patients, identify gaps through the program assessment process and implement interventions based on identifying factors that contribute to these gaps. Program improvement tools targeting specific gaps are included in the toolkit. Detailed guidance and additional program improvement tools are also provided in *Tool 10 - Action Plan*.

Focus C: Evaluate Outcomes

Develop ongoing quality assurance processes to ensure that program improvement activities are implemented and sustained. To evaluate interventions, review RVCT HIV status data after program changes were implemented. For additional detail on quality assurance and evaluation processes, see *Tool 10 - Action Plan*.

Focus A—Assess Program Components

The following assessments may identify practice changes that are simple to implement and can improve HIV testing. Focus A assesses three areas:

- TB program components for universal HIV testing
- TB case management checkpoints
- HIV status reporting for all TB cases and RVCT data completeness
- RVCT data analysis and discussion

TB Program Components for Universal HIV Testing of TB Cases

Review your program practices to ensure that HIV testing resources, prompts, and documentation opportunities are in place, so that all TB cases can complete treatment having had an HIV test, or at least with the reason documented that HIV status is not known. Ensure that all RVCTs are completely filled out with an HIV status or the reason for no known HIV status.

Consider the following “At-a-Glance” summaries to identify program components and case management checkpoints where simple actions can strengthen HIV testing practices.

At-a-Glance: HIV Testing Program Components

Use the following checklist to assess whether your program includes all HIV testing components. Check any program components below that are missing or jot down ideas for strengthening HIV testing in your TB Program.

HIV Testing Policies	<ul style="list-style-type: none">✓ Written policies and procedures exist for universal opt-out HIV testing✓ Staff are trained on the written policies and procedures
Clinical, EMR, Case Management Forms	<ul style="list-style-type: none">✓ All forms and EMRs include HIV status: Intake, private provider report, treatment progress, discharge planning, patient interview, patient education and adherence assessments, case conference, clinical summaries, treatment completion✓ HIV test is a check-off option on physician order form
Case Conferences Review HIV status	<ul style="list-style-type: none">✓ HIV testing and HIV status documentation are integrated into all case management steps✓ Case conferences include discussion of HIV testing for each case with unknown status throughout treatment
Staff Trained On Opt-out HIV Testing	<ul style="list-style-type: none">✓ Staff are trained in the opt-out HIV testing process✓ Staff are trained to deliver HIV test results
TB Patients Educated About HIV Testing	<ul style="list-style-type: none">✓ If HIV status is not already known and documented, patients are educated about the need for HIV testing✓ Until HIV tested, patients are provided additional opportunities for HIV testing throughout treatment
QA Steps Include HIV Status	<ul style="list-style-type: none">✓ Routine chart Quality Assurance includes HIV testing and HIV status documentation✓ Routine RVCT Quality Assurance includes completeness of HIV status reporting for all TB cases

At-a-Glance: Case Management Checkpoints

There are several checkpoints during a patient's TB care when HIV status and data completeness can be reviewed, and changes to case management practice to ensure that HIV testing is accomplished. Note any activities among the case management checkpoints below where HIV testing practice could be strengthened.

Receive Case Report	<ul style="list-style-type: none">✓ Check that all clinical and demographic data are complete✓ Check HIV status
Interact with Provider	<ul style="list-style-type: none">✓ Familiarize MD with TB program role✓ Review data, assess HIV status✓ Determine DOT need✓ Discuss discharge planning
Discuss with Patient	<ul style="list-style-type: none">✓ Discuss plan for treatment✓ Review medical history & clinical data, including HIV status✓ Assess barriers to care
Post-Discharge	<ul style="list-style-type: none">✓ Provider introduction: discuss data reporting requirements including documented HIV status✓ Patient meeting: continued education, adherence assessment, discuss need for HIV testing, if not done already
Monthly	<ul style="list-style-type: none">✓ Monitor DOT, side effects, response to treatment✓ At case management meetings, review opportunities for HIV testing, if not done already
Milestone Months	<ul style="list-style-type: none">✓ Month 2: if no culture conversion, consider assessing HIV status, if not done already✓ Months 3 and 6: get updated information from provider,✓ Revisit HIV status, if not recorded yet
Complete Therapy	<ul style="list-style-type: none">✓ Verify all data are complete, including HIV status

Completeness of HIV Status Reporting for all TB Cases

Data from the RVCT Question #26 can be used to review the completeness of reporting on HIV status for TB patients. This data can be analyzed locally or through a request to the CDPH TB Registry or your TBCB assigned epidemiologist. The data elements for the RVCT case report form question are shown below.

REPORT OF VERIFIED CASE OF TUBERCULOSIS

26. HIV Status at Time of Diagnosis (select one)

- Negative Indeterminate Not Offered Unknown
 Positive Refused Test Done, Results Unknown

If POSITIVE, enter:

State HIV/AIDS Patient Number:

City/County HIV/AIDS Patient Number:

The following table outlines the definitions for the RVCT HIV variables in Question 26.

HIV Status Definitions^{1,2}

Option	Description
Negative	<ul style="list-style-type: none"> Documented negative result at the time of TB diagnostic evaluation or at TB diagnosis or earlier Not exceeding 1 year
Positive	<ul style="list-style-type: none"> Laboratory result interpreted as positive according to published criteria <u>or</u> Documented positive results
Indeterminate	Documented indeterminate result at the time of TB diagnostic evaluation or TB diagnosis
Refused	HIV testing offered but declined at the time of the TB diagnostic evaluation or TB diagnosis
Not offered	HIV testing not offered at the time of the TB diagnostic evaluation or TB diagnosis
Test done, results unknown	<ul style="list-style-type: none"> HIV test performed at the time of the TB diagnostic evaluation or TB diagnosis, but the results not known to the TB program, or Result is not known for a reason other than pending results
Unknown	<p>Not known whether the patient:</p> <ul style="list-style-type: none"> Has had an HIV test Was ever offered a test Was referred for HIV testing (e.g., anonymous testing center, private testing center)

¹ TB Registry Guidelines Help System, Version 5.0, July 2011, Tuberculosis Control Branch, California Department of Public Health.

² Applies to all cases alive at diagnosis.

Review HIV status data to identify which TB cases have no HIV status determined
 Data sources can include RVCT data, local program registry data, data collected through chart reviews, or cohort review outcomes.

1. RVCT data indicate which TB cases have no HIV status determined, and the reasons for no HIV status point to specific program practices to target for improvement.
2. Determine additional analyses as indicated to refine the focus of program improvement efforts to specific groups of TB patients. It could be helpful to stratify HIV status data into demographic categories. The following can be generated from RVCT data by local or state TB program staff:
 - Provider type
 - Sex
 - Age group
 - Race/ethnicity
 - Country of origin
 - Behavioral TB risk factor (e.g., drug use)
 - Housing status

Note that provider type data is available on the RVCT Follow-up 2 (FU2) form when the TB case has a final treatment outcome and the RVCT FU2 has been submitted to the state TB Branch.

3. Chart review can clarify whether lack of HIV status is due to programmatic practices or test result documentation and reporting gaps. Conduct chart review of TB cases with “No HIV Status on RVCT” if additional detailed information is needed about specific HIV testing practices or about the completeness of HIV testing documentation. A sample chart review tool is included in the toolkit (Tool 7), which can be modified. This chart abstraction tool is useful for collecting data that can help to identify contributing factors or barriers to obtaining an HIV test on all TB cases and suspects. The detailed data from chart abstractions can also be helpful in crafting potential solutions to improve specific HIV testing practices or deficiencies in documentation.

How to Calculate Known HIV Status of TB Cases at Year-End HIV Data Review

Data Year:	
Total TB cases in the cohort:	
# TB cases with known HIV status:	
# TB cases without HIV Status	%
Refused:	%
Not offered:	%
Test Done, results unknown:	%
Unknown:	%

4. Incorporate HIV testing as an outcome measure in cohort review, or implement cohort review including HIV testing.
 - Identify a cohort to review (e.g., cases reported during a 3, 6, 9, or 12 month time period)
 - Select data source for indicators (e.g., RVCT or chart review)
 - Develop a method for review (e.g., cohort review)
 - Record the number (#) and percentage (%) of cases with a known HIV status (see Tool 7 for a sample data collection form)
 - For each patient with an unknown HIV status, identify the reason(s) for no HIV status

Cohort review is a process to monitor all of the most important case management benchmarks and to make immediate corrections to staff practices. Cohort review assesses groups of TB cases diagnosed during specific three-month periods, and the results of the analysis are immediately available to ensure prompt and appropriate interventions. The data from successive three-month cohorts also can be easily compared over time, so that changes in program performance can be identified quickly, and then improvements can be made and measured regularly.

RVCT Data Analysis and Discussion

Local TB program staff can perform the data analyses described above locally, or can request part-year or year-end data from the CDPH TB Branch Registry or from the program's assigned CDPH TBCB epidemiologist.

Best practices and successful interventions to improve universal HIV testing of all TB cases will be shared through the TB Control Branch Web site and through individual consultations, as requested.

Focus B—Program Development

Identifying and Implementing Solutions to Universal HIV Testing Barriers

The following tables identify common barriers to universal HIV testing and offer possible solutions listed in the middle column. Once barriers and interventions are identified, developing an action plan may be helpful to track and evaluate progress. *Tool 10 - Developing an Action Plan*, provides tools and templates to develop an action plan of interventions to address the common HIV testing barriers. The tools in this document are examples that can be tailored to specific local program needs.

Generating Possible Solutions

If program components assessment, case management checkpoints review, or HIV testing data analysis have identified any gaps, review the relevant HIV testing barriers and possible solutions in the tables below. In the right-hand column, note any action steps that could be helpful in addressing each gap. Examples of possible solutions, relevant tools, and successful interventions are shown below.

Patient Refused HIV Testing

Patients may opt out of having an HIV test for many reasons. Factors that may be influenced by HIV testing practices within the TB program can be addressed through patient education and staff training. Effective communication between staff and TB patients may improve full adoption and understanding of a specific TB-HIV care recommendation.

TB programs may need to revise patient education materials about TB-HIV and HIV testing for TB cases and provide staff with training on ensuring universal HIV testing and interacting with patients to implement opt-out HIV testing.

Patient Refused HIV Testing		
Possible Reasons / Contributing Factors	Possible Solutions	Record Actions Needed
Patient Factors <ul style="list-style-type: none"> • Fear of knowing the HIV test result • Denial of TB diagnosis • Fear of stigma • Feeling offended • Not understanding importance of HIV status with TB disease 	<ul style="list-style-type: none"> • Increase patient knowledge • Provide patient with culturally and linguistically appropriate education TB-HIV materials • Arrange for an interpreter and/or cultural broker to facilitate explanation 	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Provider Factors <ul style="list-style-type: none"> • Provider communication did not convey to patient that HIV testing is part of routine TB clinical care 	<ul style="list-style-type: none"> • Staff and provider training on opt-out HIV testing 	<input type="checkbox"/>

Available Tools / Resources
1 & 3: Opt-Out HIV Testing Talking Points and Training for Delivering HIV Rapid Test Results 3 & 9: Patient education resources 10: Program Assessment Checklist

HIV Testing Not Offered

Opt-out HIV testing in a medical setting differs from HIV testing in other contexts by making an HIV test a routine part of TB diagnosis and treatment. Patients who have an unknown status are informed that the test is routinely part of TB care, and that it will be performed unless they specifically decline it. Patients are not “offered” an HIV test and do not “opt in” to having an HIV test.

Universal HIV testing of TB cases differs from HIV testing in other settings because the decision to perform an HIV test is based on the identification of TB, and the need to refer HIV-infected TB patients for appropriate HIV care at the initiation of TB treatment. Universal HIV testing is *not* based on the assessment of an individual patient’s risk factors for acquiring HIV.

TB programs may need to provide staff with training on the practice of universal HIV testing, on TB-HIV coinfection, and on interacting with patients to implement opt-out HIV testing. Providers and staff may also have differing experience and comfort in delivering HIV test results, which may influence their consistency in ordering an HIV test for every TB patient.

HIV Testing Not Offered		
Possible Reasons / Contributing Factors	Possible Solutions	Record Actions Needed
<ul style="list-style-type: none"> • Logistical issues and outdated protocols • Providers use a risk assessment protocol for HIV testing • Providers not comfortable with practice of universal HIV testing • Inadequate reimbursement • Misperception regarding client acceptance • Provider or TB program forgot to offer the test to patient 	<ul style="list-style-type: none"> • Program self-assessment on logistics capacity (see HIV Testing Program Components Checklist and Tool 10) • Ensure clinic/clinician intake form includes HIV test results • Provider education • Program policies and procedures • Discuss obtaining free rapid testing kits from AIDS programs • Staff training on importance of HIV status determination • Staff training on opt-out testing process 	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

Available Tools / Resources
1 & 2: Recommendations for HIV Testing in TB Patients and FAQ about TB & HIV 3: Patient Talking Points for Opt-Out HIV Testing 8: Contact local Office of AIDS to obtain HIV testing kits 8: HIV Testing Information & Resources for Clinicians and HIV/AIDS Resources & Training for TB Programs

HIV Testing Done, but Results Unknown

The HIV status field on the RVCT may not contain an HIV status because although the test was performed, the results were not recorded in the patient's chart or the information from the patient's chart was not entered into the RVCT. The lack of documentation could be due to not having a place to record the information on case management forms, or there may not be a tickler system to obtain the results when an HIV test is performed by a private provider. Staff may also need additional training in completing the RVCT.

HIV Testing Done, but Results Unknown		
Possible Reasons / Contributing Factors	Possible Solutions	Record Actions Needed
<ul style="list-style-type: none">• Difficulty obtaining test results from community providers where test was performed• Lack of documentation of test results in patient chart	<ul style="list-style-type: none">• Establish or reinforce protocol for obtaining HIV test results from testing venue (private provider, clinic)• Ensure that intake/case summary/case management forms include HIV status• Improve systematic capture of HIV status from patient records to RVCT	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

Available Tools / Resources
6: Case Summary and Checklist 7: Chart Review Tool for TB Cases Without a Known HIV Status Contact State TB Branch Registry for RVCT training

HIV Testing Status Unknown

A complete lack of information about HIV testing for a TB patient indicates, at minimum, that documentation practices may need to be improved. To determine why HIV status is unknown, review patient records for HIV testing and HIV status data. If the result is in the public health/medical chart, implement protocols for recording test results. If there is no HIV testing or HIV status information in the chart, then the causes may be further upstream, e.g., test was not ordered, patient refused, or test result was not obtained.

HIV Testing Status Unknown		
Possible Reasons / Contributing Factors	Possible Solutions	Record Actions Needed
<ul style="list-style-type: none"> • Protocol not in place for universal HIV testing and recording results • Provider did not educate patient about the importance of HIV test • Provider did not order HIV test 	<ul style="list-style-type: none"> • Review charts for HIV status data • Establish/reinforce protocol for documenting HIV test results • Address provider discomfort with conducting HIV testing 	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

Available Tools / Resources
<p>Local protocol that includes documenting HIV test results in patient chart</p> <p>Staff training on completing Q. 26 on RVCT (contact the state TB Branch Registry)</p> <p>Local protocol that includes documenting HIV status in Q. 26 on RVCT</p> <p>1 & 2: Recommendations for HIV Testing in TB Patients and FAQ about TB and HIV</p> <p>3, 5 & 9: Patient Talking Points for Opt-Out HIV Testing, How to Interpret and Deliver HIV Rapid Test Results, HIV/AIDS Resources and Training for TB Programs</p> <p>8: HIV Testing Information and Resources for Clinicians</p>

Implement Program Changes

Review the “Actions Needed” columns above and choose which intervention to implement using solutions that are feasible to implement with available resources, and solutions with the most potential impact on program practice.

If additional detail would be needed to convert the actions into an action plan to implement HIV testing program changes, please see *Tool 10 - Action Plan*. Tool 10 includes a detailed checklist of HIV Testing Program Components, suggestions for how to include evaluation of interventions in action plan development, and an Action Plan template.

Examples of Successful Interventions for Universal HIV Testing

Targeted outreach to private providers who see a large proportion of TB cases, but were not getting HIV status:

- Providers doing HIV risk assessments and not ordering HIV tests on perceived low-HIV risk patients
 - Educate providers about importance of knowing HIV status for treatment of TB
 - Health department staff track and request HIV status for all TB cases
 - Require HIV status as part of discharge approval for hospitalized patients
- Providers reluctant to report HIV status to health department because of HIPAA
 - Educate providers about public health exception to HIPAA and California statutes authorizing sharing of HIV status with public health
- TB program staff unsure about need for HIV test and about confidentiality issues, so did not thoroughly follow up with private providers for HIV status
 - Add prompts on intake forms for HIV status on all patients
 - Issue standing orders for HIV test along with other baseline laboratory tests
 - Ensure that physicians agree to order HIV status on children
 - During treatment, TB Controller reviews all TB cases for HIV status
 - Educate PHNs and disease investigators about the importance of HIV status for treatment
 - Require HIV status before any changes in DOT frequency
 - Implement multiple layers of tracking HIV status
 - Reporting by disease investigators, case management by PHNs
 - Coordinate electronic medical record line listing with case conferences

Chart review found HIV status that hadn't been recorded on the RVCT

- Update reporting on cases still under treatment

Opt-out testing can't be implemented due to existing HIV testing policies

- Work with county counsel and HIV/AIDS program to allow opt-out testing
- Write policy and procedure for opt-out HIV testing
- Train providers and local TB program staff on opt-out testing procedure

Rapid HIV testing by TB case managers in the field

- Work with county HIV/AIDS and laboratory staff to train and CLIA certify case managers to perform rapid HIV testing
 - Create policy and procedure for rapid HIV testing or blood draw for conventional testing at the same time as placing TST or blood draw for IGRA
-

Focus C—Evaluate Outcomes

Successful interventions will ultimately be reflected in increased “known HIV status” reported on the RVCT. Annual performance on HIV status of TB cases for each local health department will be reported in the annual *Report on Tuberculosis in California*.

Progress in implementing specific interventions can be evaluated locally by developing quality assurance (QA) measures and evaluating short and long-term outcomes of program improvement activities. Examples of quality assurance and evaluation practices that can be integrated locally are provided below.

Develop Quality Assurance Processes

QA is the review and evaluation process for the quality of care and effectiveness of the TB control program. In QA, problems are identified and priorities and a corrective plan of action are developed. For example, recording patient care outcomes must be completed (by all members of the healthcare team) as activities occur. In specific TB program components, case management practices or RVCT reporting, regular QA can provide information about staff training needs, barriers to implementing interventions, and additional processes that may need to be improved.

QA Examples

Staff and Patient Education about HIV Testing

- Document staff participation in training for opt-out HIV testing and delivering HIV test results
- Incorporate review of HIV-related information into staff orientation and regular in-services
- Develop staff cultural competency for working with all populations at risk for TB, and assess and document cross-cultural communication skills in performance appraisals
- Ensure that staff have suitable patient education materials available in appropriate languages
- Document patient education on case management checklists

Case Conferences

- Include discussion of HIV status
- Review a sample of charts to identify reasons HIV status was not determined
- Develop written policies and protocols for determining HIV status and include HIV status on case management forms

Documentation of Referrals to HIV services for HIV-positive TB patients

- Designate an HIV services referral coordinator for the TB program
- Identify the specific types of referral services needed by the jurisdiction's TB patients; consult with the local health department's HIV/AIDS programs as well as local HIV service providers to identify available services
- Develop partnerships with HIV service providers; mutually determine how best to serve the TB program and patients
- Research each referral agency and provide detailed information to case managers:
 - Written description of the services provided
 - Client eligibility criteria for the services
 - Application procedure (costs, required forms, documentation needed)
- Identify and address any agency questions and concerns about serving TB patients
- In collaboration with service providers, establish procedures and designate points of contact for the TB program referral coordinator
- Routinely update information on service providers

Staff Training for Accurate and Complete Reporting of HIV Status

- Document staff participation in RVCT training
- Perform routine chart reviews for accurate and complete documentation of HIV testing in patient charts

Evaluating Program Improvement

Examples of Evaluating Program Components of Case Management Checkpoints

Perform an annual review of a random sample of patient charts to determine successes and gaps in HIV testing and documentation in clinical services and case management services. Conduct periodic reviews of progress, share successful strategies, and discuss barriers and potential new strategies. Set review dates when developing the action plan at the beginning of interventions.

If your program conducts case conferencing, ask participants to include information about HIV testing, education, and referral in their case reports. These reports can be used as a method to determine whether the program policies are being implemented and to identify possible barriers.

Select concrete objectives that provide measurable indicators of program practices

- List the specific HIV testing, education, and referral information to be documented in the patient record. Set a target percentage of patient records to include the documentation.

To make this objective measurable, consider the wording:

X% of patient records will include appropriate documentation of HIV testing, education, and referral information. (Appropriate documentation includes [list out specifically].)

Examples of Evaluating RVCT HIV Status Data

Select concrete objectives that provide measurable indicators of HIV testing

- For TB cases with unknown HIV status, establish a target percentage of cases that will *receive opt-out HIV testing*; and the percentage of those tested whose *HIV status will be documented*.

To make this objective measurable, consider this wording:

X% of TB cases whose HIV status is unknown will *receive opt-out HIV testing*.

X% of TB cases who receive opt-out HIV testing will *have their HIV status documented*.

- Identify for all cases annually the percentage, number, and demographics for relevant variables:
 - Cases with HIV status determined / HIV status not determined
 - Cases receiving HIV testing / not receiving HIV testing
 - Patients informed of HIV test / not informed
 - Specific case reasons HIV testing offered / not offered
 - Specific case reasons HIV testing not provided
 - Number of referrals provided for HIV positive TB cases and TB cases with HIV risk factors
 - Median days HIV status identified from onset of TB evaluation
 - Median days HIV status identified from onset of TB treatment

HIV Testing References

Key Recommendations, Guidelines, California Laws

National Recommendations

1. *National TB Indicators Program Objectives and Performance Targets for 2015*, CDC, January 2009.
www.cdc.gov/tb/programs/Evaluation/Indicators/ProgramObjectives.pdf
2. Revised Recommendations for HIV Testing of Adults, Adolescents and Pregnant Women in Health Care Settings. *MMWR*, September 22, 2006/Vol. 55/No.RR-14.
www.cdc.gov/hiv/topics/testing/resources/reports/pdf/rr5514.pdf

The following bullets are excerpts from this document that pertain to non-pregnant adults and adolescents. Refer to the MMWR for recommendations regarding HIV screening for pregnant women.

- *All patients initiating treatment for TB should be routinely screened for HIV infection.*
 - *Health-care providers should subsequently test all persons likely to be at high risk for HIV at least annually. Persons likely to be at high risk include injection-drug users and their sex partners, persons who exchange sex for money or drugs, sex partners of HIV-infected persons, and men who have sex with men (MSM) or heterosexual persons who themselves or whose sex partners have had more than one sex partner since their most recent HIV test.*
 - *Screening should be voluntary and undertaken only with the patient's knowledge and understanding that HIV testing is planned.*
 - *Patients should be informed orally or in writing that HIV testing will be performed unless they decline screening (opt out). Oral or written information should include an explanation of HIV infection and the meanings of positive and negative test results, and the patient should be offered an opportunity to ask questions and to decline testing. With such notification, consent for HIV screening should be incorporated into the patient's general informed consent for medical care on the same basis as are other screening or diagnostic tests; a separate consent form for HIV testing is not recommended.*
 - *If a patient declines an HIV test, this decision should be documented in the medical record.*
 - *HIV test results should be provided in the same manner as results of other diagnostic or screening tests.*
3. Questions and Answers for Professional Partners: Revised Recommendations for HIV Testing of Adults, Adolescents and Pregnant Women in Health Care Settings, CDC publication. Available at www.cdc.gov/hiv, listed under "Topics," HIV Testing.

4. Dear Colleague Letter – Revised HIV Testing Recommendations in Healthcare Settings, CDC letter, September 1, 2006. Available at www.cdc.gov/hiv, listed under “Topics,” “HIV Testing.”
5. Fact Sheet – Recommendations for HIV Testing in TB Clinics, June 2007, Centers for Disease Control and Prevention (CDC), Division of TB Elimination (DTBE). Available at www.cdc.gov/tb, listed under “Publications.”
6. “CDC Grand Rounds: the TB-HIV Syndemic.” *MMWR*, July 6, 2012. Vol. 61, No. 26, pp. 484–89.

California Guidelines and Laws

- i. *Guidelines for the Treatment of Active Tuberculosis Disease* (and amendments). California TB Controllers/California Department of Public Health, TB Control Branch Joint Guidelines, 2003. www.ctca.org.

“An HIV test should be performed, with informed consent, at the time of diagnosis for all patients suspected of having TB, as both treatment and prognosis may be significantly impacted by HIV infection.”

NOTE: At the time these guidelines were written, Health and Safety Code 120990 included requirements for a separate written consent for an HIV test under certain circumstances.

As of January 1, 2008, Health and Safety Code Section 120990 has been revised. *Medical care providers are directed to inform the patient that an HIV test will be performed, unless the patient specifically refuses. Additionally the medical provider must provide the patient with information about the HIV test; patient refusals must be documented in the patient’s medical record. This statute applies to all medical care providers.*

- ii. Health and Safety Code Section 120990 (AB682, Berg, Statutes of 2007). Statutes Related to HIV Testing and Consent for Testing. www.leginfo.ca.gov.
 - (a) *Prior to ordering a test that identifies infection with HIV, a medical care provider shall inform the patient that the test is planned, provide information about the test, inform the patient that there are numerous treatment options available for a patient who tests positive for HIV and that a person who tests negative for HIV should continue to be routinely tested, and advise the patient that he or she has the right to decline the test. If a patient declines the test, the medical care provider shall note that fact in the patient's medical file.*
 - (b) *Subdivision (a) shall not apply when a person independently requests an HIV test from the provider.*
 - (c) *Except as provided in subdivision (a), no person shall administer a test for HIV infection unless the person being tested or his or her parent, guardian, conservator, or other person specified in Section 121020 [see below], signs a*

written statement documenting the person's informed consent to the test. This requirement does not apply to such a test performed at an alternative site pursuant to Sections 120890 or 120895. Nothing in this section shall be construed to allow a person to administer a test for HIV unless that person is otherwise permitted under current law to administer an HIV test.

- (d) Nothing in this section shall preclude a medical examiner or other physician from ordering or performing a test to detect HIV on a cadaver when an autopsy is performed or body parts are donated pursuant to the Uniform Anatomical Gift Act (Chapter 3.5 (commencing with Section 7150) of Part 1 of Division 7).
- (e) (1) The requirements of subdivision (c) do not apply when blood is tested as part of a scientific investigation conducted either by a medical researcher operating under the approval of an institutional review board or by the department, in accordance with a protocol for unlinked testing.
(2) For purposes of this subdivision, "unlinked testing" means blood samples that are obtained anonymously, or that have the name or identifying information of the individual who provided the sample removed in a manner that prevents the test results from ever being linked to a particular individual who participated in the research or study.
- (f) Nothing in this section shall be construed to permit any person to unlawfully disclose an individual's HIV status, or to otherwise violate provisions of Section 54 of the Civil Code, the Americans With Disabilities Act of 1990 (Public Law 101-336), or the California Fair Employment and Housing Act (Part 2.8 (commencing with Section 12900) of Division 3 of Title 2 of the Government Code), which prohibit discrimination against individuals who are living with HIV, or who test positive for HIV, or are presumed to be HIV-positive.

iii. Health and Safety Code Section 121020. Statutes Related to HIV Testing and Consent for Testing. www.leginfo.ca.gov.

- (a) (1) When the subject of an HIV test is not competent to give consent for the test to be performed, written consent for the test may be obtained from the subject's parents, guardians, conservators, or other person lawfully authorized to make health care decisions for the subject. For purposes of this paragraph, a minor shall be deemed not competent to give consent if he or she is under 12 years of age.
(2) Notwithstanding paragraph (1), when the subject of the test is a minor adjudged to be a dependent child of the court pursuant to Section 360 of the Welfare and Institutions Code, written consent for the test to be performed may be obtained from the court pursuant to its authority under Section 362 or 369 of the Welfare and Institutions Code.
- (b) Written consent shall only be obtained for the subject pursuant to subdivision (a) when necessary to render appropriate care or to practice preventative measures.
- (c) The person authorized to consent to the test pursuant to subdivision (a) shall be permitted to do any of the following:
 - (1) Notwithstanding Sections 120975 and 120980, receive the results of the test on behalf of the subject without written authorization.

(2) Disclose the test results on behalf of the subject in accordance with Sections 120975 and 120980.

(3) Provide written authorization for the disclosure of the test results on behalf of the subject in accordance with Sections 120975 and 120980.

iv. Health and Safety Code Section 121015. Statutes Related to Disclosing HIV Test Results to Public Health Officials.

(a) Notwithstanding Section 120980 or any other provision of law, no physician and surgeon who has the results of a confirmed positive test to detect HIV infection of a patient under his or her care shall be held criminally or civilly liable for disclosing to a person reasonably believed to be the spouse, or to a person reasonably believed to be a sexual partner or a person with whom the patient has shared the use of hypodermic needles, or to the local health officer or designated local public health agency staff for HIV partner services, that the patient has tested positive on a test to detect HIV infection, except that no physician and surgeon shall disclose any identifying information about the individual believed to be infected, except as required in Section 121022 or with the written consent of the individual pursuant to subdivision (g) of Section 120980.

v. Health And Safety Code Section 121025-121035. Disclosure of public health records relating to HIV or AIDS containing personally identifying information. 121025.

(a) Public health records relating to human immunodeficiency virus (HIV) or acquired immunodeficiency syndrome (AIDS), containing personally identifying information, that were developed or acquired by a state or local public health agency, or an agent of that agency, shall be confidential and shall not be disclosed, except as otherwise provided by law for public health purposes or pursuant to a written authorization by the person who is the subject of the record or by his or her guardian or conservator.

(b) In accordance with subdivision (g) of Section 121022, a state or local public health agency, or an agent of that agency, may disclose personally identifying information in public health records, as described in subdivision (a), to other local, state, or federal public health agencies or to corroborating medical researchers, when the confidential information is necessary to carry out the duties of the agency or researcher in the investigation, control, or surveillance of disease, as determined by the state or local public health agency.

(c) Except as provided in paragraphs (1) to (3), inclusive, any disclosure authorized by subdivision (a) or (b) shall include only the information necessary for the purpose of that disclosure and shall be made only upon agreement that the information will be kept confidential and will not be further disclosed without written authorization, as described in subdivision (a).

(1) Notwithstanding any other provision of law, the following disclosures shall be authorized for the purpose of enhancing completeness of HIV/AIDS, tuberculosis,

and sexually transmitted disease coinfection reporting to the federal Centers for Disease Control and Prevention (CDC):

(A) The local public health agency HIV surveillance staff may further disclose the information to the health care provider who provides HIV care to the HIV-positive person who is the subject of the record for the purpose of assisting in compliance with subdivision (a) of Section 121022.

(B) Local public health agency tuberculosis control staff may further disclose the information to state public health agency tuberculosis control staff, who may further disclose the information, without disclosing patient identifying information, to the CDC, to the extent the information is requested by the CDC and permitted by subdivision (b), for purposes of the investigation, control, or surveillance of HIV and tuberculosis coinfections.

(C) Local public health agency sexually transmitted disease control staff may further disclose the information to state public health agency sexually transmitted disease control staff, who may further disclose the information, without disclosing patient identifying information, to the CDC, to the extent it is requested by the CDC, and permitted by subdivision (b), for the purposes of the investigation, control, or surveillance of HIV and syphilis, gonorrhea, or chlamydia coinfection.

(2) Notwithstanding any other provision of law, the following disclosures shall be authorized for the purpose of facilitating appropriate HIV/AIDS medical care and treatment:

(A) State public health agency HIV surveillance staff, AIDS Drug Assistance Program staff, and care services staff may further disclose the information to local public health agency staff, who may further disclose the information to the HIV-positive person who is the subject of the record, or the health care provider who provides his or her HIV care, for the purpose of proactively offering and coordinating care and treatment services to him or her.

(B) AIDS Drug Assistance Program staff and care services staff in the State Department of Public Health may further disclose the information directly to the HIV-positive person who is the subject of the record or the health care provider who provides his or her HIV care, for the purpose of proactively offering and coordinating care and treatment services to him or her.

(3) Notwithstanding any other provision of law, for the purpose of facilitating appropriate medical care and treatment of persons coinfecting with HIV, tuberculosis, and syphilis, gonorrhea, or chlamydia, local public health agency sexually transmitted disease control and tuberculosis control staff may further disclose the information to state or local public health agency sexually transmitted disease control and tuberculosis control staff, the HIV-positive person who is the subject of the record, or the health care provider who provides his or her HIV, tuberculosis, and sexually transmitted disease care.

(4) For the purposes of paragraphs (2) and (3), "staff" does not include nongovernmental entities.

(d) No confidential public health record, as defined in subdivision (c) of Section 121035, shall be disclosed, discoverable, or compelled to be produced in any civil, criminal, administrative, or other proceeding.

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Tools for Universal HIV Testing of TB Cases

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Tool 1

Provider Handout / Provider Letter

Recommendations For HIV Testing in TB Patients

Sample Provider Letter

Recommendations For HIV Testing in TB Patients

What are the recommendations for HIV testing in TB clinics?

- The CDC recommends HIV testing for all TB patients after the patient is notified that testing will be performed, unless the patient declines (i.e., opt-out screening).
- Routine HIV testing is also recommended for persons suspected of having TB disease and for contacts to TB patients.
- Persons at high risk for HIV infection should be screened for HIV at least annually.
- Prevention counseling and separate written consent for HIV testing is no longer required.

How do the 2006 CDC recommendations for HIV screening differ from previous ones?

The current recommendations are aimed to eliminate missed opportunities for HIV screening and reduce significant barriers to HIV testing in health care settings by:

- Using opt-out HIV screening;
- Annually screening persons at high risk for HIV;
- Eliminating the need for separate written consent for HIV testing; and
- Eliminating the need for prevention counseling as part of routine HIV screening.

Who should be tested for HIV?

All patients in TB clinics should be tested for HIV. This includes TB suspects, patients, and contacts.

What is opt-out testing?

- Opt-out screening is defined as performing HIV testing after notifying the patient that the test will be performed.
- Although the patient may decline or defer testing, testing is strongly recommended.
- Pre-test counseling is not required beyond that used for any other routine clinical practice.
- Consent is inferred unless the patient declines testing.
- In California, opt-out HIV testing has been permitted since 2008.
- HIV results should be provided in the same manner as all other medical results.

Why does CDC recommend screening all TB patients for HIV infection?

- The medical management of TB is altered in the presence of HIV infection.
- HIV infection is the most important risk factor for progression from latent TB infection to TB disease.
- Progression to TB disease is often rapid among HIV-infected persons.
- TB outbreaks can rapidly expand in HIV-infected patient groups.
- Risk behavior-based targeted HIV testing by providers fails to identify all persons who are HIV infected. This is because many individuals may not perceive themselves to be at risk for HIV or do not disclose their risks.
- Routine HIV testing reduces the stigma associated with testing.
- When HIV is diagnosed early, appropriate interventions can lead to improved health outcomes, including slower progression and reduced mortality.
- Monitoring the prevalence of HIV infection among persons with TB helps to detect the spread of HIV infection into new areas and population groups.

[Date]

[Provider Address]

Dear [Provider]:

Testing all tuberculosis cases and suspect cases for HIV is the recommendation of the California Department of Public Health (CDPH), the California Tuberculosis Controllers Association (CTCA), and the Centers for Disease Control and Prevention (CDC).

Knowing the HIV status of all TB cases and suspects is important because:

- The medical management of TB is altered in the presence of HIV infection.
- When HIV is diagnosed early, appropriate interventions can lead to improved health outcomes, including slower progression and reduced mortality.
- Risk behavior-based targeted HIV testing by providers fails to identify all persons who are HIV infected. This is because many individuals may not perceive themselves to be at risk for HIV or do not disclose their risks.
- HIV infection is the most important risk factor for progression from latent TB infection to TB disease, and progression to TB disease is often rapid among HIV-infected persons.

HIV tests performed in medical settings no longer require pretest counseling or signed written consent. Providers are required under California law¹ to inform the patient that the test is planned, provide test information, and advise about right of refusal. Consent is inferred unless the patient declines testing.

In California, opt-out HIV testing has been permitted since 2008. HIV test results should be provided in the same manner as all other medical results.

Mortality is reduced in patients who receive highly active anti-retroviral therapy (HAART) during TB treatment, regardless of CD4 count. HAART is recommended regardless of CD4 cell count when tuberculosis disease is identified in HIV-infected patients. The findings of multiple studies provide compelling evidence that HAART should be started early during TB treatment of HIV-TB co-infected individuals. World Health Organization (WHO) guidelines recommend the initiation of HAART between two and eight weeks after the initiation of TB therapy.

¹ *Assembly Bill 682: Providing for HIV Testing in California Without Written Consent*, Jan. 2008, Health and Safety Code 120990.

Tool 2
Frequently Asked Questions (FAQ) about TB and HIV

Frequently Asked Questions (FAQ) about TB and HIV*

What are the links between HIV and TB?

HIV affects the immune system and promotes both the progression of latent TB infection to active disease and relapse of TB disease in previously treated patients. Worldwide, TB is one of the leading causes of death in HIV-infected people.

What is the impact of co-infection with TB and HIV?

A HIV infected individual who also has untreated TB infection is much more likely to develop active TB disease during his or her lifetime than someone without HIV infection. Among people with latent TB infection, HIV infection is the stronger known risk factor for progressing to active TB disease.

Infection with TB enhances replication of HIV and may accelerate the progression of HIV infection to AIDS. Without treatment, HIV and TB can work together to shorten the life of the person infected.

Can rapid HIV tests be used to screen TB patients and their contacts?

Yes. Rapid HIV tests, using finger prick or oral specimens, can be used. Results are available in about 20 minutes.

Who should be tested for HIV in TB clinics?

All patients in TB clinics should be tested for HIV. This includes TB suspects, patients, and contacts regardless of their age and risk factors. All HIV-infected people should get a TB test to find out if they have TB infection.

What is the TB regimen for individuals with HIV?

Recommendations for treating tuberculosis in adults with HIV infection are, with a few exceptions, the same as those for adult TB patients who are not HIV-infected. Consult the 2013 CDC MMWR guidelines: Managing Drug Interactions in the Treatment of HIV-Related Tuberculosis (<http://www.cdc.gov/tb>, see link to Guidelines).

When should I start HAART treatment?

Highly active antiretroviral therapy (HAART) is recommended regardless of CD4 cell count when tuberculosis disease is identified in HIV-infected patients. Mortality during TB treatment is also reduced in these patients. The findings of multiple studies provide compelling evidence that HAART should be started early during TB treatment of HIV-TB co-infected individuals.

- CAMELIA trial: Among patients with a CD4 count less than 200, those who started HIV treatment with 2 weeks of TB treatment, compared to 8 weeks, reduced mortality but increased rate of immune reconstitution syndrome (IRIS).
- SAPIT study: Among patients with a CD4 count less than 500, there was no difference in incidence rate of AIDS or death if HIV treatment was started within 4 weeks of TB treatment or within 4 weeks after the completion of the intensive phase. There was a higher incidence of IRIS among patients with a CD4 count less than 50 and earlier treatment initiation.

- AIDS Clinical Trial Groups Study A5221: Overall, no difference in mortality if HIV treatment was started 2 weeks or 8-12 weeks after TB treatment initiation. Among patients with CD4 count less than 50, there was a significant decrease in new AIDS-defining illness, and mortality and higher incidence of IRIS.

WHO guidelines recommend the initiation of HAART between 2 and 8 weeks after the initiation of TB therapy.

***Content Adapted from:**

1. CDC Grand Rounds: the TB-HIV Syndemic. *MMWR*, July 6, 2012. 61(26);484–489.
2. Thomson MA, Aberg JA, Cahn P, *et al.* Antiretroviral Treatment of Adult HIV Infection: 2010 Recommendations of the International AIDS Society–USA Panel. *JAMA*. 2010; 304 (3):321–333.
3. Abdool Karim SS, Naidoo K, Grobler A, *et al.* Timing of Initiation of Antiretroviral Drugs during Tuberculosis Therapy. *The New England Journal of Medicine*. 2010; 362 (8) 697–706.
4. Piggott DA, Karakousis PC. Timing of Antiretroviral Therapy for HIV in the Setting of TB Treatment. *Clin Dev Immunol*. Volume 2011, Article ID 103917, 10 pages. Accessed 4/14/14.
5. Blanc FX, Sok T, Laureillard D, *et al.* Earlier versus later start of antiretroviral therapy in HIV-infected adults with tuberculosis. *N Engl J Med*. 2011 Oct 20; 365(16):1471–81.
6. Havlir DV, Kendall MA, Ive P, *et al.*; AIDS Clinical Trials Group Study A5221. Timing of antiretroviral therapy for HIV-1 infection and tuberculosis. *N Engl J Med*. 2011 Oct 20; 365(16):1482–91.
7. Abdool Karim SS, Naidoo K, Grobler A, *et al.* Integration of antiretroviral therapy with tuberculosis treatment. *N Engl J Med*. 2011 Oct 20; 365(16):1492–501.
8. Health Protection Agency. *Universal HIV testing for TB patients: Guidance for healthcare professionals working with TB*. London: 2009.
9. Centers for Disease Control and Prevention. *HIV and TB Fact Sheet*. Available at: <http://www.cdc.gov/hiv/resources/factsheets/hivtb.htm>

Tool 3

Provider Handout

Patient Talking Points for Opt-Out HIV Testing

Patient Talking Points for Opt-Out HIV Testing*

Sample Opt-Out HIV Testing Talking Points for Providers

Opt-out screening is performing an HIV test after notifying the patient that the test will be done; consent is inferred unless the patient declines. General consent for medical care should be considered sufficient to encompass consent for HIV testing.

- Separate written consent should NOT be required
- Prevention counseling should NOT be required

“I will be doing some routine laboratory testing for TB which includes HIV testing.”

“We perform routine screening for HIV on all patients and we will be doing that as part of your visit today.”

“We routinely offer HIV testing to all TB patients because if someone is infected with HIV, they can be treated for both infections. This is important if we want to achieve the best results.”

Sample Talking Points for Providers when Patients Opt Out of HIV Testing

If the patient refuses to be tested, explore the reasons for refusal and address the concerns:

- Shock/denial regarding their TB diagnosis—discuss HIV testing at the next encounter.
- Reiterate that the HIV test is now carried out routinely as part of normal management of TB patients.
- Explain that knowing their HIV status is beneficial as there is good treatment available for HIV that can improve their quality of life and keep them healthy.
- If they would like additional support, refer them to a sexual health provider/clinic.
- Explain that the test results are strictly confidential and will not be shared with anyone without their explicit permission. Assure them that the results will NOT be discussed with [Immigration and Customs Enforcement (ICE)], insurance companies, their bank, family and friends.
- Reassure them that having an HIV test will not affect their immigration, housing, employment or insurance application.

“TB and HIV can be treated at the same time, and treating both diseases is necessary to cure TB.”

“HIV has become a chronic, manageable disease, and new treatment options have revolutionized care.”

“Infection with HIV will affect the way that TB is treated” and identifying HIV infection allows individuals to be linked to HIV care.

“We do this because of our desire to help keep our patients healthy and because there are excellent treatment options available for HIV.”

*Content Adapted from:

1. Health Protection Agency. *Universal HIV testing for TB patients: Guidance for healthcare professionals working with TB*. London: 2009
2. California STD/HIV Prevention Training Center, CDPH, OOA, the AIDS Health Project. *Testing for HIV Infection. A Curriculum for Medical Providers in California*. www.stdhivtraining.org.

Tool 4

Provider Handout

How to Interpret and Deliver HIV Test Results

How to Interpret and Deliver HIV Test Results*

Negative Rapid Test or Conventional Test

- No further testing is necessary unless the patient may have been exposed during the last 3 months
- If possible exposure during last 3 months, the patient should be re-tested in 3 months
- Provide counseling on risk reduction and resources for patients concerned about risk or refer to an appropriate provider.

“Your rapid test result is negative. At this time you are not showing signs of HIV infection. It’s important to know, though, that if you were infected within the last 3 months, it may not show up on this test. You may want to test again 3 months after the last time you may have been exposed to HIV.”

With Preliminary Positive Rapid Test Results

- The patient most likely has HIV, but the test needs to be confirmed with a Western Blot test
- Provide counseling, with an emphasis on HIV as a manageable disease, risk reduction, psychological issues, and partner notification/disclosure

“Your rapid test result is preliminary positive. This means that you are likely to be infected with HIV, but we need to do a confirmatory test to be sure of this result.”

With Positive Conventional Test results

- Clinicians should provide positive HIV test results in person
- Provide counseling, with an emphasis on HIV as a manageable disease, risk reduction, psychological issues, and partner notification/disclosure
- Initiate appropriate screening and treatment and/or referrals for care and other services
- Patients should be clear about when and where they will be seen again.
- Report test results to the local health department

With Indeterminate Result

- Explain that results are unclear and the test needs to be repeated in a few weeks

*Content Adapted from:

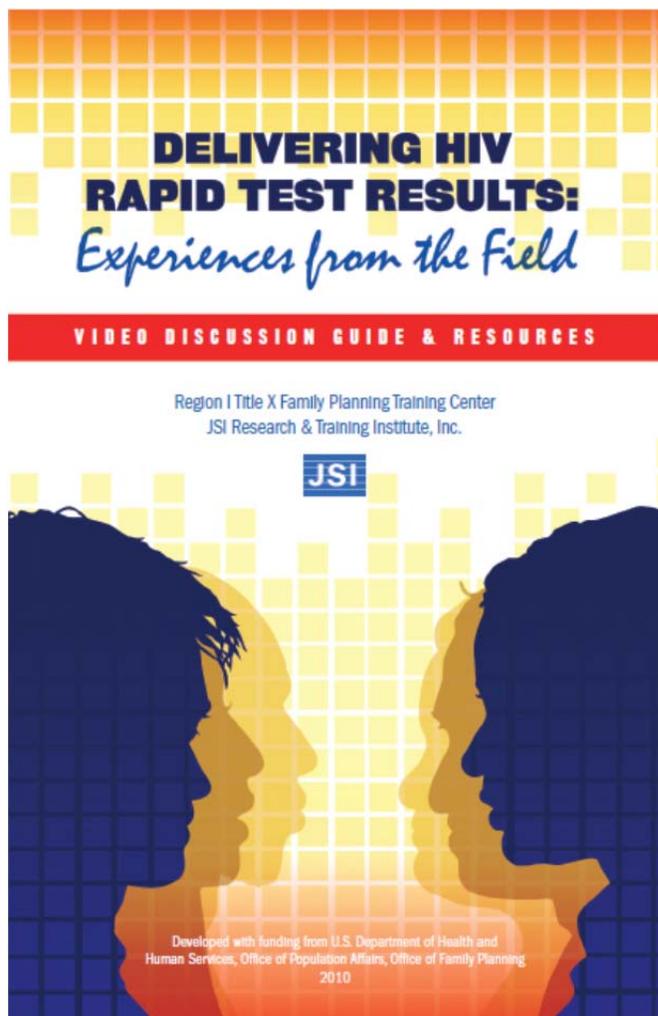
1. Health Protection Agency. *Universal HIV testing for TB patients: Guidance for healthcare professionals working with TB*. London: 2009.
2. Region I Federal Training Centers Collaborative and John Snow Institute Research and Training, Inc. *Delivering HIV Rapid Test Results: Experiences from the Field*. Video Guide. 2010.

Tool 5
Training Resource for Delivering HIV Rapid Test Results

Training Resource for Delivering HIV Rapid Test Results

This video and discussion guide is was produced by the New Jersey Medical School Global Tuberculosis Institute, a Regional Tuberculosis Training and Medical Consultation Center. Provider scripts for each test result scenario are included.

Available from: <http://www.umdnj.edu/globaltb/productlist.htm>. Duration: 35 Minutes.



Video content

The video demonstrates counseling approaches for effectively and compassionately delivering HIV test results; offers personal experiences and perspectives from a group of diverse clients who have received both positive and negative test results, and from providers who have given results; and emphasizes the importance of providing culturally appropriate services and referrals.

Video guide content

The accompanying guide provides discussion questions and resources to enable peer learning. The guide includes the complete script for each scenario with annotated counseling techniques, suggestions from clients and tips from providers.

Target audience

Health care providers and counselors whose job includes delivering HIV test results to clients/patients, in settings including community health centers, family planning clinics, STD clinics, and physicians' offices.

Tool 6
Case Summary and Checklist

Case Summary and Checklist

Name _____ MR# _____

DOB _____ Country of Origin _____ Preferred Language _____

Pulmonary (HV 3 days) Smear + / - (circle one) Extrapulmonary site: __ (HV 5 days)

Cervical LN: Excised Not Excised

MD Name (TB) _____ Phone (____) _____

Fax (____) _____

Email _____

MD Name (non-TB) _____ Phone (____) _____

Fax (____) _____

Email _____

Pharmacy Name _____

TST: Date ____/____/____ Result: mm _____

IGRA:* Date ____/____/____ Result: _____ Type: (QFT, TSPOT) _____

CXR Initial: Date ____/____/____ Result: _____

Repeat CXR: Date ____/____/____ (2-3 mos, if CX neg) Result: _____

HIV test: Date ____/____/____ Result: _____

Binational Card: Date ____/____/____

Date	Type	Smear	Culture <i>Collect monthly until negative</i>	Susceptibility <i>Repeat if cx+ @ 3 mos</i>

TB treatment start date ____/____/____ IREP

Specify if other regimen:

Other key diagnoses: _____

Other pertinent meds (HIV): _____ (other immunocompromised)

Infectious period ____/____/____ to ____/____/____

CI needed

Change to SAT or Video DOT date ____/____/____

D/C EMB date ____/____/____ (if pansensitive)

D/C PZA date ____/____/____ # Doses _____ (Must complete 40 doses)

Change to BIW, TIW, QW DOT date ____/____/____ (Repeat TST / IGRA 8-10 wks)

Culture conversion date ____/____/____

INH resistant-contacts: MD notified to adjust LTBI Tx Repeat susceptibility date ____/____/____

*Interferon Gamma Release Assay

Content adapted with permission from the San Diego TB Control Program Case Management Data Collection Form.

Tool 7

Chart Review Tool for TB Cases Without a Known HIV Status

Tool 8
HIV Testing Information and Resources for Clinicians

HIV Testing Information and Resources for Clinicians

Find an HIV testing site

CDC National HIV testing resources: <http://www.hivtest.org/>



AIDS Hotline of California: <http://cdcnpin.org/ca/>



Consultation Services for Clinicians

National HIV/AIDS Clinicians Consultation Center & Warmline: <http://www.nccc.ucsf.edu/>



AIDS Education and Training Center National Resource Center: <http://www.aids-ed.org>



Tool 9
HIV/AIDS Resources and Training for TB Programs

HIV/AIDS Resources and Training for TB Programs

Office of AIDS Resources

- CDPH Office of AIDS Policy Letter: *Recent Passage of Assembly Bill 682: Providing for HIV Testing in California Without Written Consent*, Jan. 18, 2008. www.cdph.ca.gov/programs/aids/Pages/Default.aspx
- California AIDS Laws 2006 Version. Office of AIDS publication. www.cdph.ca.gov/programs/aids/Pages/Default.aspx
- 2007 Update to HIV related laws. Office of AIDS publication. www.cdph.ca.gov/programs/aids/Pages/Default.aspx

Implementing New CDC HIV Testing Recommendations

Educational Materials for Health Professionals / TB Program Staff

- CDPH Support of Routine HIV Testing in Medical Settings, 3-3-2009. www.cdph.ca.gov/programs/aids/Pages/Default.aspx
- *HIV Testing for TB Cases, Suspects and Contacts in California; Department of Public Health, Tuberculosis Control Branch document, 2009; under revision.* (available at TBCB)
- Office of AIDS FAQ about HIV Testing, April 2008 www.cdph.ca.gov/programs/aids/Pages/Default.aspx

Educational Materials for Patients

“HIV Testing in Health Care Settings” – English plus 10 other languages; Office of AIDS; CDPH 8700 (8/08).

www.cdph.ca.gov/programs/AIDS/Pages/OAHIVTestHCS.aspx

“TB & HIV: A Dangerous Partnership” available in print, audio, DVD, in 9 languages from Healthy Roads Media: www.healthyroadsmedia.org/topics/tuberculosis.htm

Print only, 8 additional languages from Virginia Dept. of Public Health TB Program: www.vdh.virginia.gov/epidemiology/DiseasePrevention/Programs/Tuberculosis/Patients/brochureTitle.htm

Staff Training Tools

The Pacific AIDS Education and Training Center (PAETC), located at the University of California San Francisco, provides HIV clinical education, clinical consultation, capacity building, and technical assistance to health care professionals and agencies in California, Arizona, Nevada, Hawai'i and the 6 U.S.-affiliated Pacific Jurisdictions. www.paetc.org/main/

The California STD/HIV Prevention Training Center provides courses on clinical care, behavioral interventions, partner services and program support to enhance the STD/HIV knowledge and skills of medical, health, and community professionals. www.stdhivtraining.org/

Rapid Testing

- California Health & Safety Code 120917 – HIV Counselors may perform an (CLIA classified) HIV test if authorized under a physician/surgeon, are trained and meet other requirements.
- OraQuick Rapid HIV Test FAQ – CDC, 2004 ; Available at www.cdc.gov/hiv/topics/testing/resources/qa/pdf/oralfluidqandafin1_1.pdf
- *Rapid HIV Testing*. California Department of Public Health, Office of AIDS guidelines, procedures and forms. www.cdph.ca.gov/programs/AIDS/Pages/OARapidHIV.aspx
- Title 17, California Code of Regulations Section 1230 - Approval of Laboratories for Use of HIV Antibody Test. www.cdph.ca.gov/programs/aids/Pages/Default.aspx

AIDS Drug Assistance Program (ADAP), Office of AIDS, CDPH

Access from this link: www.cdph.ca.gov/programs/AIDS/Pages/OAADAP.aspx

- ADAP clinical updates
- ADAP fact sheets
- ADAP Formulary
- ADAP enrollment information
- ADAP services by county listing of county coordinators
- Information about HIV drug interactions
- Office of AIDS staff assignments by local health jurisdiction

AIDS Services

- AIDS services links: Local Health Jurisdictions (California AIDS Clearinghouse) www.cdph.ca.gov/programs/aids/Pages/OACAC.aspx
- California's HIV-STD Referral Database: Search more than 1,200 organizations providing HIV/AIDS and STD services in California. www.cdcnpin.org/ca/
- National HIV/AIDS Clinicians' Consultation Center. www.nccc.ucsf.edu/about_nccc/warmline/
- Office of AIDS, California Department of Public Health: *Office of AIDS Home Page*. www.cdph.ca.gov/programs/AIDS/Pages/Default.aspx

Implementing New CDC HIV Testing Guidelines

Revised Recommendations for HIV Testing of Adults, Adolescents, and Pregnant Women in Health-Care Settings. *MMWR*, September 22, 2006 / Vol. 55 / No. RR-14. www.cdc.gov/hiv/topics/testing

Tool 10
Action Plan

Action Plan

Overview of Action Planning Steps

Developing an action plan is a step by step method for evaluating program performance and designing a process for program improvement. The action planning process will be especially useful for program staff with limited program evaluation and improvement experience. Before beginning, designate someone as project leader and organize a work group that includes TB staff across all aspects of TB patient care, including key decision makers.

Step 1: Assess HIV Testing Practices

Review RVCT data and then use the checklist to assess the effectiveness and efficiency of your program's current HIV testing activities.

Step 2: Create an Action Plan

As you complete the checklist, note "next steps" related to the unmet items. These action items then become the action plan to address the programmatic barriers and challenges, the causes identified in the assessment, and potential solutions. Set a timeline for completion of the action plan.

Step 3: Evaluate Actions

In the action plan, include evaluation steps to determine the effectiveness of interventions. After implementation, meet with staff and stakeholders to review how effective the new activities are, how well they are being maintained, and whether any need modification.

If satisfied with program performance in the targeted area, review the program components checklist, case management checkpoints, or RVCT data again to determine if another area is not being met or needs improvement. If additional areas need to be assessed or improved, repeat the program improvement process.

Step 1. Assess HIV Testing Practices

Conduct a program level assessment of the appropriate HIV testing components, gathering additional information through staff interviews or a review of selected patient charts as needed.

The checklist is divided into seven sections that reflect components of HIV testing. Each component reflects the most recent state and national recommendations and California state statutes governing HIV testing and related activities. The HIV testing components are:

1. Data Review
2. Written Policies and Procedures
3. Providing HIV and HIV/TB Information
4. HIV Testing
5. Referrals to HIV Services and Other Providers
6. Staff Training
7. Epidemiology and Surveillance

Complete each section of the checklist by:

- ✓ Checking whether the standard is met or unmet (in the left-hand column).
- ✓ Recording action steps and noting the tools available to meet the standard.

After completing the checklist, transfer any HIV testing next steps that were noted in the checklist onto an action plan. The process for developing the action plan is outlined in Step 2.

Checklist: HIV Testing in TB Programs

Met Y/N	Component 1 HIV Status Data from the RVCT is reviewed at least annually.	Action Items / Next Steps
	1.1 HIV status data from the RVCT is reviewed annually.	
	1.2 If HIV status is not recorded on the RVCT, chart reviews are conducted to fill in information.	
	1.3 For cases with no HIV status determined, chart reviews are conducted to identify reasons.	

Met Y/N	Component 2 Written policies and procedures are in place for opt-out HIV testing, in accordance with applicable guidelines and laws – including a protocol for requesting and confirming HIV testing results for privately managed patients.	Action Items / Next Steps
	2.1 Written policies and procedures include protocols for opt-out HIV testing.	
	2.2 The following topics are included: <ul style="list-style-type: none"> • Available methods of HIV testing • Persons for whom HIV testing is performed • Information to be provided to the patient about HIV and HIV/TB co-infection • Referral process and service providers list • Opt-out testing process • Confidentiality measures; confidentiality agreements 	
	2.3 Existing policies and protocols require HIV testing for: <ul style="list-style-type: none"> • Confirmed TB cases with unknown HIV status regardless of HIV risk factors • TB suspect with unknown HIV status regardless of HIV risk factors • Contact to an infectious TB case with unknown HIV status regardless of HIV risk factors 	
	2.4 HIV testing policy requires documentation, including the date, in patient's clinical record or case management file, of each step in opt-out testing: <ul style="list-style-type: none"> • Patient informed that HIV test is planned • Reason patient was not informed that HIV test was planned • Patient refused test • Subsequent repeat offer of HIV test (if declined) • Date HIV test ordered or conducted • HIV test result • Referrals made, if newly positive or negative, for counseling related to HIV behavioral risk factors 	

Met Y/N	Component 3 HIV and HIV/TB co-infection information is provided to patients in a manner that reflects guidelines and statutes.	Action Items / Next Steps
	3.1 Staff provide HIV information and referral to individual patients in a private area.	
	3.2 HIV information and education materials that match patient's cultural background and linguistic needs are provided.	
	3.3 The relevance of a patient's HIV status to TB treatment for disease or infection is explained.	
	3.4 Patient concerns about HIV testing / receiving HIV test results are addressed using materials developed for persons of the same cultural background, literacy level, and language.	
	3.5 HIV prevention/risk reduction counseling is provided by TB program staff or by referral.	

Met Y/N	Component 4 HIV testing is provided in manner which reflects guidelines and laws.	Action Items / Next Steps
	4.1 Before an HIV test is ordered, the TB patient receives the following information: <ul style="list-style-type: none"> • That the HIV test is planned • Information about the HIV test • Treatment options available if HIV positive • That routine HIV testing is recommended for all persons starting TB medication 	
	4.2 Assistance is provided to help resolve patient concerns, fears, and questions about HIV testing/receiving test results.	
	4.3 Patients with undetermined HIV status who have refused offers for HIV testing are offered HIV testing at subsequent patient visits and encouraged to accept HIV testing.	
	4.4 If patient declines HIV test, the refusal is documented in the medical record.	
	4.5 Agency agreements are in place for off-site HIV testing.	
	4.6 Patients receive HIV test results confidentially.	

Met Y/N	Component 5 Referrals to HIV services or other providers are provided in a manner reflecting guidelines and laws.	Action Items / Next Steps
	5.1 Appropriate referral needs are identified for each patient.	
	5.2 Patients receive an explanation about referrals and available assistance to obtain services.	
	5.3 Staff follow up with patients at subsequent visits to ensure that patients accessed referral services.	
	5.4 When individual patient barriers to obtain referral services are identified, staff follow up with patients and referral agencies to resolve them (e.g., language, cost, location, hours, HIV fears, other).	
	5.5 If needed, written or informal agreements are in place for referral services needed by local patient population <ul style="list-style-type: none"> • HIV care and medical treatment • Drug and alcohol treatment • HIV prevention and partner counseling • Other: _____ 	
	5.6 Staff document in patient's record referral actions taken and outcomes of assistance completing patient referral.	

Met Y/N	Component 6 Staff receive training to provide HIV education and deliver HIV test results in accordance with the TB program's written protocol.	Action Items / Next Steps
	6.1 Staff receive training to provide HIV education in compliance with the written protocol (e.g., basic knowledge of HIV, HIV/TB co-infection, interviewing skills, cultural competency and statutory requirements re: HIV testing).	
	6.2 Staff are provided current resources on HIV topics.	
	6.3 Staff receive training on delivering HIV results and discussing HIV treatment referrals with patients.	

Met Y/N	Component 7 HIV status reported on Report of a Verified Case of TB (RVCT). Staff periodically review epidemiology of TB-HIV coinfection in California.	Action Items / Next Steps
	7.1 Staff trained about trends in TB-HIV coinfection.	
	7.2 Staff trained on HIV reporting procedures on RVCT.	

Step 2: Create an Action Plan

An action plan outlines the steps needed to improve a TB program’s HIV testing and includes activities assigned to specific staff, a timeline, and accountability for each identified program gap or challenge.

Action Planning Steps

	STEP	TOOLS AND RESOURCES
1	<p>Identify an area or areas that need improvement Using the results of the assessment, identify potential components of HIV testing, information, education and referral to target for improvement.</p>	<ul style="list-style-type: none"> • Program Components Checklist • Gather input as needed from staff, stakeholders, and service partners, such as local health department HIV program staff, and local agencies providing HIV testing and services.
2	<p>Identify challenges and barriers that affect the selected areas that need improvement. <i>THEN</i> Identify the root cause(s) of each of the challenges or barriers identified.</p>	<ul style="list-style-type: none"> • Gather input as needed from staff, stakeholders, and service partners, such as local health department HIV program staff, and local agencies providing HIV testing and services.
3	<p>Develop and prioritize a list of solutions Develop a list of possible solutions to the challenges and barriers identified. <i>THEN</i> Prepare a final list by ranking which solutions will have the most impact <i>and</i> are feasible to implement.</p>	
4	<p>Develop an action plan Develop action steps for <i>each</i> proposed solution. Each action item should include:</p> <ul style="list-style-type: none"> • Specific activities • Resources needed to implement the action item • Assigned staff to complete each activity (e.g., TB controller, supervising PHN, case manager). If any activities are assigned to personnel who are not on the action planning team, be sure to get their input before completing the plan • A reasonable timeframe for completion of each activity • Who will be responsible for ensuring each activity is completed 	<ul style="list-style-type: none"> • Action Plan Example and Template • Gather input as needed from staff, stakeholders, and service partners, such as local health department HIV program staff, and local agencies providing HIV testing and services.
5	<p>Evaluate the effectiveness of the action plan Include evaluation steps in your action plan to determine the effectiveness of interventions. General steps:</p> <ol style="list-style-type: none"> 1. Meet periodically with staff and stakeholders to review how effective the new activities are, and how well they are being maintained. 2. Modify activities, if needed. Determine how to sustain them. 3. If satisfied with program performance in the targeted area, review the standards checklist again to determine if another area is not being met or needs improvement. 4. If additional areas need to be assessed or improved, begin the action plan development process again, using action planning tools. Create new action plan, then re-evaluate. 	<ul style="list-style-type: none"> • See Step 3. Evaluating the Action Plan

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Action Plan Example and Template

Program Gap/Barrier #1: Staff are not appropriately documenting information about opt-out HIV tests and HIV status in patient records				
Solution #1: Develop protocols and implement routine quality assurance of HIV testing documentation				
Evaluation: By [DATE] 80% of patient records will have HIV testing documentation. Perform quality assurance reviews of X number of charts for HIV testing documentation. Evaluation date(s): 30 days after implementing documentation protocols, then every 60 days until target of 80% is met				
Activities	Who	Target Date	Date Complete	Comments / Status
Develop HIV testing documentation protocols				
Train staff on documentation process and standards				
Perform quality assurance reviews of charts until target is met				
•				
•				
•				
•				

Step 3. Evaluate Actions

To determine the effectiveness of each intervention, build evaluation in from the start by including evaluation steps as you develop the action plan. Although the action plan can be used to track whether specific action steps have been completed, the final outcome of interventions will be measured by the proportion of TB cases with known HIV status.

Interim steps toward universal HIV testing, such as increasing the number of TB cases for whom HIV tests are ordered, or reducing the number of TB patients who decline the HIV test, can be measured with S-M-A-R-T objectives.

- Specific
- Measurable
- Attainable/Achievable
- Relevant/Realistic
- Time Bound¹

Select concrete objectives that will provide measurable indicators of desired performance. For example:

- For TB cases with unknown HIV status, establish a target percentage for HIV tests *ordered*; and the percentage of cases that will *receive* HIV testing.
To make this objective measurable, consider this wording:
X% of TB cases whose HIV status is unknown will *have an HIV test ordered*.
X% of TB cases whose HIV status is unknown will *receive HIV testing*.
- List the specific HIV testing, patient education, and HIV positive patient referral information to be documented in the patient record. Set a target percentage of patient records that will include the documentation.
To make this objective measurable, consider this wording:
X% of patient records will include appropriate documentation of HIV testing, education, and referral information. (Appropriate documentation includes...)

Set review dates when developing the action plan. Conduct periodic reviews of progress, schedule sharing of successful strategies, and discussion of barriers and potential new strategies. Modify activities, if needed, and determine how to sustain them.

If satisfied with performance on specific interventions, review the assessment tools again, and if additional HIV testing areas can be improved, begin developing a new action plan. When these new interventions have been implemented, conduct evaluation activities to measure program improvement and progress toward universal HIV testing of TB cases.

¹ *Outcomes Assessment for School and Program Effectiveness: Linking Planning and Evaluation to Mission, Goals and Objectives*
Council on Education for Public Health, 2005.

FEEDBACK: TOOLKIT FOR ASSURING UNIVERSAL HIV TESTING OF TB CASES

Thank you completing this form to evaluate the TB Branch *Toolkit for Assuring Universal HIV Testing of TB Cases*. Please fax completed form to 510-620-3034, or to discuss feedback, contact your Program Liaison.

Name: _____ Jurisdiction: _____ Date: _____

1. What steps have you taken to assess HIV testing of TB cases in your jurisdiction?

Please check all that apply.

- Reviewed HIV Data Report from TBCB, or line list from _____ (year).
- Discussed HIV status data and the *HIV Testing Toolkit* with your Program Liaison.
- Reviewed HIV testing practices in your jurisdiction.
- Conducted chart reviews of TB cases without HIV status.
- We didn't need to use the toolkit to improve HIV testing in our TB program.
- It was difficult to know which sections or tools we needed to utilize in the toolkit.

Please describe any additional steps you've taken to assess the HIV testing of TB cases in your jurisdiction.

2. Which sections or tools from the *Toolkit* did you use? Please check all that apply.

- Information to explain universal HIV testing to staff.
- Information to explain opt-out HIV testing to staff.
- The data review section.
- The section about identifying barriers to testing.
- The section to identify possible solutions to testing barriers.
- The tools.

Please explain why you used specific section(s) or tools in the toolkit.

3. Please provide feedback and comments on any of the tools you used.

	REVIEWED TOOL OR		USED TOOL	
	Useful	Not Useful	Effective	Not Effective
1. Recommendations for HIV Testing in TB Patients	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. Frequently Asked Questions (FAQs) about TB and HIV	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. Patient Talking Points for Opt-Out HIV Testing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. How to Interpret and Deliver HIV Test Results	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

FEEDBACK: TOOLKIT FOR ASSURING UNIVERSAL HIV TESTING OF TB CASES

	REVIEWED TOOL		OR USED TOOL	
	<u>Useful</u>	<u>Not Useful</u>	<u>Effective</u>	<u>Not Effective</u>
5. Training Resource for Delivering HIV Rapid Test Results	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Case Summary and Checklist	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Chart Review Tool for TB Cases Without a Known HIV Status	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. HIV Testing Information and Resources for Clinicians	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. HIV/AIDS Resources and Training for TB Programs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Action Plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. Have you developed any additional tools, materials, or trainings for HIV testing improvement? *Please check all that apply.*

- NO
- YES, and I would be willing to share them with the TB Branch.
- YES, and I would be willing to share them with other TB programs.

Please list tools, materials, or trainings you have developed.

5. What part of the *Toolkit* was most helpful for HIV testing improvement?

6. How could the *Toolkit* be improved?
