

## NBS TB Training

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Oct. 30, 2018



## NBS Overview

- Patient-centered system
- Shared among all jurisdictions and most conditions (INEDSS + SWIMSS/FORMS)
  - STD
  - TB
  - General communicable diseases

## What will NBS include for TB?

- Reporting of TB cases and suspects
  - Include reporting by hospital IPs
- Reporting of LTBI cases
  - Medication approval for LTBI treatment
- Contact investigations
- Electronic lab reports
- *Class B Follow-Up Evaluations (COMING MID 2019)*

## Terminology Changes

INEDSS/SWIMSS/FORMS	NBS
Report of TB	TB Investigation
Report of LTBI	LTBI Investigation
Contact Investigation	Contact Tracing
Case Completion Report	Follow Up 2 (TB)
INEDSS ID/SWIMSS Profile ID	Patient ID
Task List	Queue
Update/Save	Submit

## New Terminology in NBS

- Case Status
  - New variable used to classify patient based on case definition
  - Ex. Confirmed, Suspect, Not a Case
- Notification
  - New mechanism within NBS to notify ISDH that investigation is "ready"
  - TB cases: Used for official CDC case counting
  - LTBI cases: Used for medication approval

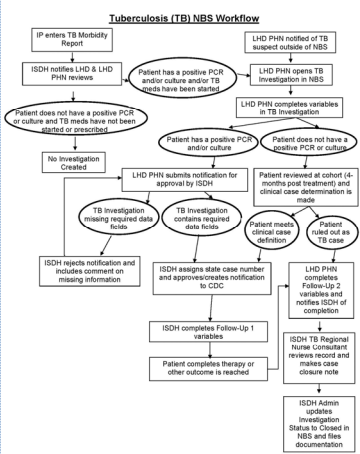
## TB Morbidity Reports

- Similar to communicable disease report in INEDSS
- Entered by IPs at hospital and then viewable by PHNs/LHDs
- Not customizable so use attachment feature for traditional Report of TB paper form and other documentation

## When to Open a TB Investigation

- Patient has a positive PCR for MTB complex and/or a positive culture for MTB complex
  - AND/OR
- Patient has been started/will be starting RIPE therapy

*Patients with further evaluation or laboratory findings pending may require a future TB Investigation if medication is started or a positive lab is received.*



## TB Investigation Summary

- Major change from TB Forms to NBS is the combination of the Report of TB and the Report of Verified Case of TB (RVCT) CDC Form
- You will now be directly completing the form that goes to CDC for official case counting
- Extremely important that data is complete and accurate
- This data is used to “grade” our state for TB indicators and determines our CDC funding

## Investigation/Reporting Information

- Investigation Status
  - Will default to open (do not update)
- Investigation Start Date
  - Date LHD notified regarding TB case/suspect
- Investigator
  - The PHN case managing the patient
- Date Reported
  - Date LHD notified regarding TB case/suspect
- Date Submitted
  - Date LHD submitted TB Investigation in NBS

## State Case Number

- Unique number to identify cases at the national level
- Must complete prior to submitting notification for case counting by CDC (lab confirmed cases only)
- LHD must enter “dummy” number to submit notification
  - ISDH will update record with true State Case Number before transmitting to CDC
  - “Dummy” number will become City/County Case Number after official counting

## State Case Number Format

- Always the same format
  - Year reported (i.e. 2018)
  - State (IN)
  - XX, two-digit county number, xx, sequential three-digit number
- Example: 2018-IN-XX49XX003
  - Third case in Marion County reported in 2018
- Example: 2018-IN-XX02XX015
  - 15th case reported in Allen County in 2018

## General Variable Information

- Most of the variables are exactly the same as the Report of TB
- Contains basic demographic, clinical and risk factor data
- Specific rules for each variable can be found in the RVCT Manual
  - Will receive hard copy from your TB regional nurse consultant
  - Available online at <https://www.cdc.gov/tb/programs/rvct/instructionmanual.pdf>

## Tricky Variables

- Sputum Smear/Culture & Smear/Culture Other
  - Positive result trumps a negative result
  - Always choose the earliest sample (by collection date)
  - Cannot use samples collected after two weeks of treatment
- NAAT
  - Only on specimen, not on culture growth
- Initial drug regimen
  - Don't update during continuation

## Tricky Variables

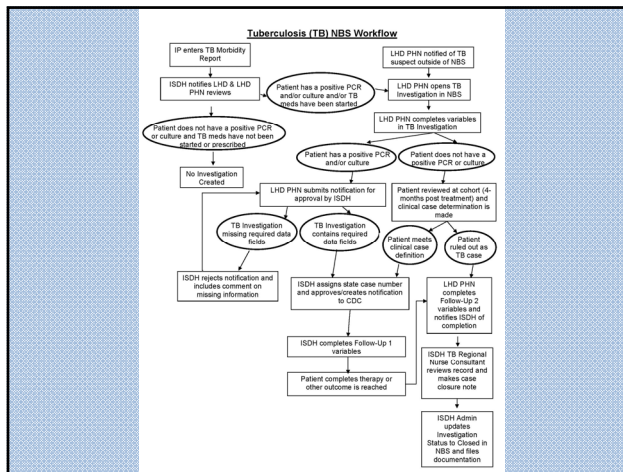
- NAAT
  - PCR, GeneXpert, probes, etc.
  - Only tests on raw specimen (not on culture growth)
  - Same rules regarding positive/negative and dates apply
- Initial Drug Regimen
  - This should be the first regimen the patient was put on for TB
    - Usually RIPE
    - Do not update this if regimen is changed down the line due to intolerance, resistance, continuation, etc.

## Remember:

- This is a surveillance tool, not a clinical tool
- Specific rules are set for each variable so that results across states are comparable
  - May be counterintuitive or not matching your clinical notes
- You can document ANYTHING in the notes and those will not be altered
- Occasionally ISDH will change answers if they do not match the rules
- Rules are set by CDC; refer to your RVCT manual

## Case Verification Tab

- Appears once TB Investigation is submitted for the first time
- Auto-assigns Case Verification to match CDC Case Status Rules based on data entered in TB Investigation
  - Ex. If a positive culture is entered, it will show 1 - Positive Culture
- Count Status will show if case has been officially counted and sent to CDC



## When do I submit a notification for TB?

- Patient has a positive PCR and/or culture for MTB complex
- Initial investigation is complete with most of the TB Investigation data completed
- Once notification is submitted to ISDH, we will review to ensure completeness and accuracy

## Required Information for Case Counting

- Demographics
- Site of disease
- Smears
- Cultures
- NAAT
- Imaging
- TST/IGRA
- Primary reason evaluated
- Homeless within past year
- Resident of correctional facility
- Resident of LTC Facility
- Occupation
- Initial drug regimen

## My Notification Was Rejected – Now What?

- ISDH will include a message on reason notification was objected
- Possible solutions
  - Add missing required data
  - Correct data fields that are incorrect
  - Wait for a positive PCR/culture or Cohort Review
- Notifications may also be rejected if case is ineligible for counting
  - They have been counted by another state
  - They have already been counted in the last year

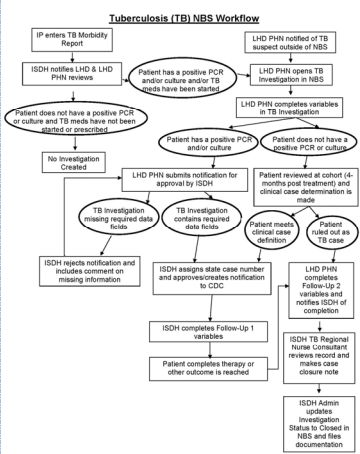
## What about my clinical cases?

- TB patients without a positive PCR or culture will remain as a TB Suspect in the system
- ISDH will determine eligibility to count as a case at Cohort Review
- ISDH will then complete official counting
  - No work needed by the LHD

## A Word of Warning:

*Please do not update variables in a TB Investigation once the notification has been approved*

- A warning message will appear in NBS reminding you that you are altering a message to CDC
- If you need to input missing variables or update incorrect items, please make sure you notify your TB regional nurse consultant so we can track the changes
- You can make notes and add attachments at any time



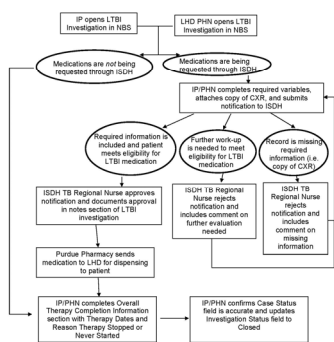
## Closing a TB Investigation

- Complete Follow Up 2 variables once patient reaches an outcome
  - EX. Completes therapy, dies, TB disease is ruled out, etc.
- Make any needed notes and update attachments
- Email your TB regional nurse consultant that the investigation is complete
  - *Please do not change the Investigation Status within NBS*

## LTBI Investigation Summary

- Similar flow to TB Investigations within NBS
- Similar variables to Report of LTBI in TB SWIMSS/FORMS
  - Matching format to TB Investigation
- LTBI cases should be entered regardless of treatment choice/provider
- Positive reactors without full evaluation can be entered
  - Most positive IGRAs will already be in the system

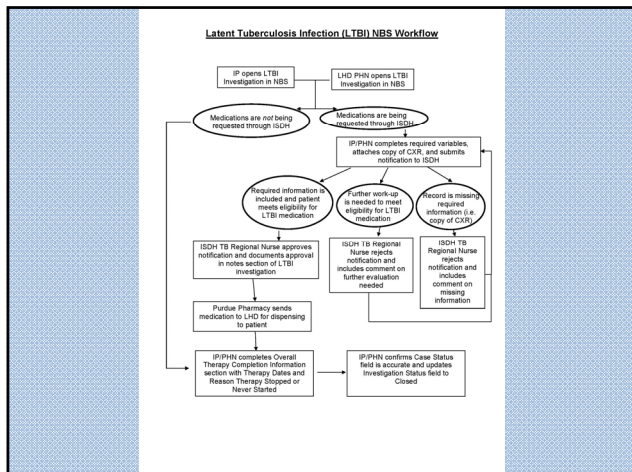
Latent Tuberculosis infection (LTBI) NBS Workflow



## LTBI Case Status

- **Confirmed:** Meets CSTE case definition for LTBI
  - Positive screening test (TST and/or IGRAs)
  - Normal imaging or abnormal imaging with TB disease ruled out
- **Suspect:** Patient did not undergo full evaluation to determine case status
  - Ex. Positive TST/IGRA but no imaging
- **Not a Case:** Patient ruled out as an LTBI case
  - Ex. Patient on window treatment with negative second test



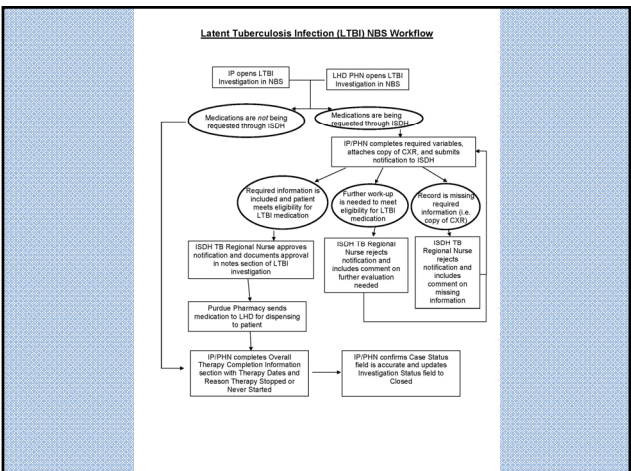


## Requesting LTBI Medications

- Complete required data on LTBI Investigation
- Attach copy of recent CXR and/or CT
  - Must attach a copy of the report, not just enter data on the investigation form
- Submit Notification to ISDH
- Once medication is approved, add Date Therapy Started and update regimen as needed

## Required Information for LTBI Medication Approval

- Demographics
- Case Status
- Previous TB/LTBI
- Country of birth
- TB symptoms
- Imaging
- TST/IGRA
- Primary reason evaluated
- HIV status
- Risk factors as needed to determine case status/treatment priority
- Patient Weight
- Medication details
  - Name
  - MG
  - Frequency





## Closing an LTBI Investigation

- Enter Date Therapy Stopped (if applicable) and Reason Therapy Stopped or Not Started
- Ensure Case Status is up-to-date
- Change Investigation Status to Closed
  - This will remove the investigation from the Open Investigation queue
  - The investigation will still be viewable by navigating to the patient's record

## Contact Investigations

- Contact Tracing module is nested under TB case's TB Investigation
- Complete Risk Assessment variables and then enter each contact via Add New Contact Record
- Contact Records are viewable on a patient's record even after the investigation is closed
  - Easily see when a person has been a known contact
  - Won't have to remake a patient profile if the contact develops LTBI or TB disease

## Contact Investigation Priority

- **High:** Sputum smear positive
- **Medium:** Sputum smear negative but culture positive
- **Low:** Pulmonary site of disease but no positive sputum smears or cultures
- **No Contact:** Extrapulmonary disease only

## Closing a Contact Investigation

- Each contact can be individually closed under their contact record by changing Status to Closed
  - Don't close a contact until the Disposition is complete
  - Separate step from entering treatment completion
- When all contacts are completed, change Contact Investigation Status to Closed



## Contact Information

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