Indiana Department of Health

COMPLEX TB CASE ACROSS MULTIPLE JURISDICTIONS

TB PREVENTION AND CARE PROGRAM

ERIN BIESTERVELD, PHN DUBOIS COUNTY

ASHLEY LIBBERT, PHN VANDERBURGH COUNTY

June 2026

Agency Priorities

1. Promote Maternal and Infant Health Outcomes
2. Prevent Chronic Disease
3. Improve Data Quality and Transparency

Learning Objectives

- Identify challenges in multi-county TB care
- Identify best practices for continuity of care
- Identify problem solving strategies for real-life TB case scenarios

Interdisciplinary Care Team

Local Hospital ED

Regional Hospital (KY)

Regional Hospital (IN)

Vanderburgh County Health Department

Dubois County Health Department

Martin County Health Department

IDOH TB Prevention and Care Team

Patient History

- 51-year-old, Male
- Resident of Dubois County, IN
- Born in Mexico
- Came to US November 2023
- Spanish speaking only – no English
- No known history of TB
- Lived in an orphanage as a baby
- Smoker
- Type 2 diabetes
- History of gout
- History of right knee arthritis
- History kidney stones

Recent Medical History

- 12/2024-8/2025: Multiple visits for dysuria/chronic kidney stones
- 6/04/25: Effusion of the right knee. No organisms seen on culture
- 6/24/25 Abdomen/Pelvis CT "mild hydronephrosis with hydro ureter on left, no stone"
- 8/27/25: Urology visit for ongoing complaints of dysuria, frequency and urgency
  - Urine sample for AFB stain/culture was obtained
  - Bladder biopsy and pyelogram that showed **granulomatosis cystitis**
- 9/09/25: CXR normal
- 9/20/25: Continued intermittent fevers and malaise, treated with variety of antibiotics
- 9/28/25-10/02/25: Seen in Local Hospital ED three times for continued dysuria/pain
- 9/30/25: Abdominal/pelvic CT "left-sided hydroureteronephrosis and urothelial thickening that could be from prior instrumentation vs. infection"

Clinical Presentation

OCTOBER 2, 2025

- Presented to Local Hospital ED with dysuria, fever/chills, weight loss (30# over last year), fatigue and severe headache
- Condition declining, severely altered mental status

OCTOBER 3, 2025

- Transferred to Regional Hospital in Henderson, KY, for Infectious Disease work-up
- Test results for 10/03/25:
  - CT Abdomen/pelvis “Multifocal left pyelonephritis, left ureteritis, bladder infection"
  - CT Lungs “No evidence of TB"
  - CT Head "No acute intracranial abnormality“
  - CXR “Probable atelectasis in both lungs, degraded by low lung volumes"

Clinical Presentation

OCTOBER 4, 2025

- Remains in critical condition
- HIV non-reactive
- A1C 8%
- Altered mental status-confused, agitated
- Transferred from KY to Regional Hospital in Vanderburgh County, IN
- IN Regional Hospital informed by KY hospital that “Patient could possibly have TB"
- Airborne Isolation Precautions initiated

Clinical Presentation

OCTOBER 5, 2025

- Intubated, sedated
- Acute Metabolic and Toxic Encephalopathy
- MRI of Brain: "...Overall appearance is highly concerning for meningitis, possibly bacterial. TB meningitis is in the differential..."
- CSF collected to rule out infectious encephalitis/CNS TB
- "Respiratory" samples collected x2- AFB smear negative x2
- Trach aspirate samples collected x2- AFB smear negative x2
- RIPE & Levofloxacin initiated due to worsening patient status

Clinical Presentation

OCTOBER 6-9, 2025

- 10/06 Tracheal aspirate collected AFB smear negative and MTB was **not** detected on PCR
- 10/07 CSF sample #2 collected
- Palliative Care consult due to further deteriorating condition
- RIPE+ Levofloxacin continues

OCTOBER 10, 2025

- 10/10 CSF sample #2 reported PCR is positive for MTB

Health Department Involvement

OCTOBER 10, 2025

- During unrelated phone conversation with Vanderburgh County PHN, Regional Hospital IP casually mentioned a patient being treated for "Urinary TB"
- VCHD notified IDOH RNC
- IDOH RNC contacted Regional Hospital to gather information on patient status, treatment, plan of care
- Report of TB received and indicated RIPE treatment initiated 10/05/2025
- IDOH alerted Dubois County PHN (late Friday before a holiday weekend-of course!)

Health Department Involvement

OCTOBER 13, 2025

- Columbus Day Holiday

OCTOBER 14, 2025

- Vanderburgh County PHN visited Regional Hospital to assist Dubois County by conducting initial interview
- Vanderburgh County PHN assisted Dubois County by initiating the household contact investigation

Remainder of Hospital Course

- 10/12: Patient is extubated
- 10/17: Patient mental status declined, developed hematuria
- 10/18: Transferred to ICU sedation/restraints
- 10/21: Patient complained of vision loss and darkness
  - Ophthalmology evaluated; diagnosis Bilateral Optic Neuritis
  - Ethambutol discontinued
- 10/24: Right knee culture obtained due to pain/inability to move
  - PCR + for MTB 10/30; MALDI-TOF MTB + 11/17
- 10/24: Urine smear/culture negative
- 11/01: CXR is normal
- 11/06: Transferred to local county hospital
- 11/12: Discharged to home
- Treatment regimen: INH/RIF/PZA/Levofloxacin, Linezolid + VB6

Disease Site Summation

DISSEMINATED TB

- Meningitis/Encephalitis
  - CSF PCR positive, culture positive
- Pulmonary TB
  - "Respiratory secretions" PCR positive, culture positive
- Right Knee
  - Collected 10/24, reported 10/30 PCR MTB positive, culture positive
- Genitourinary TB
  - Collected by urology office
  - Urine AFB from 8/27 urine sample 4-36 AFB/field result on 8/29 -not reported.
  - 9/30 MTB+ by MALDI-TOF

All DSTs pan-susceptible

Ongoing TB Case Management

Dubois County

- Daily DOT/eDOT
- Weekly in-person visits for assessments
- Spanish language interpreter available at LHD
- 11/17: Sputum smear clearance
- 11/20: Sputum culture conversion
- 11/27: Elevated LFTs. All TB meds held until 12/04/25
- 12/05: INH and RIF reintroduced. Tolerating meds well since
- Patient missed lab follow up appointment in February due to language barrier

Ongoing Case Management

Moved to Martin County in April

- Dubois County and Martin County coordinated transfer of care
- Patient's current TB regimen; INH/RIF and B6 daily
- Martin County Health Department administers daily eDOT/DOT and case management
- Planning treatment duration of 12-months total due to Disseminated TB/severity of illness
- Patient continues to see ID physician at Regional Hospital in Vanderburgh County and Urology and PCP in Dubois County

Contact Investigation

- Vanderburgh County assisted Dubois County by visiting hospital to interview the patient's family and to initiate the contact investigation
- Dubois County took ownership of contact investigation
- By asking more questions, DCHD PHN learned of more family members who needed testing
- 10/14: Seven family members were tested
- 12/09: Two family members with LTBI, treatment completed
- Contact Investigation at health care facilities completed

Current Health Status of Patient

- Still blind
- Dysuria continues
- Using wheelchair, other assistive devices for mobility
- Continued low body weight/malnourished
- Improved glycemic control - A1C now 5.1%
- Adherent with TB treatment
- Mental status improved
- Needs assistance with ADLs

Lessons Learned

- **Communication Matters**
- **Think TB Earlier**
- **Plan for Continuity of Care**
- **Plan for Continuity of Care**
- **Remove Barriers**
- **Monitor the Whole Patient**

TB Prevention and Care Program

Tuberculosis Prevention and Care Program

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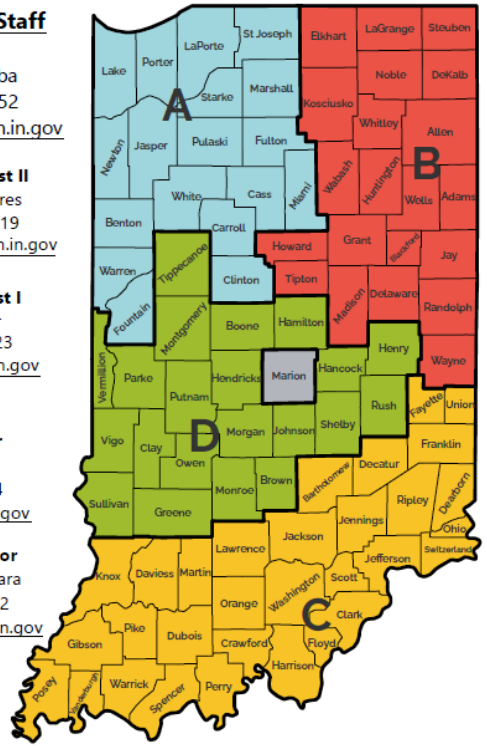

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Questions?

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