TB Isolation and Control

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UWHC TB Risks

- 566-bed academic medical center
- 6 ICUs (trauma & life support, pediatric, cardiac, cardiothoracic, burn, neurosurgery)
- Adult & pediatric transplant service (heart, lung, kidney, liver, pancreas, intestine, islet cell)
- BMT
- UW Carbone Cancer Center
- Security Unit
- Immunology (HIV) Clinic
UWHC TB Risks

- **Facility incidence of TB (2010)** - 9 new cases reported to HD by UWHC. Does not include patients with known TB that consulted with UW.

- **Risk classification:**
  - Inpatient-Medium
  - Outpatient-Low
TB Control

- TB Risk Assessment and Control Plan- CDC Guidelines, 2005
  - Screening of high risk patients
  - Staff awareness of TB symptoms
  - Annual TST
  - Annual fit testing
  - Prompt isolation
  - All room checks by PE
  - Criteria for d/c of isolation
  - TB flag in electronic medical record
TB Control

- Reporting to HD
  - IC receives fax for pos AFBs from WSLH and follows case. AFBs are reported to local HD.
    - Once ID is made, HD is updated and exposure response begins, if any.
  - IC will report high risk cases to HD that need follow-up.
    - Example- TST+ tx patient, uninsured pt with +TST who was not adequately ruled out prior to d/c. TST + child with HIV.
TB Cases

- 68 yo, Laotian male prisoner. Refugee 1988 no TB history per HD. Hx of DM and kidney disease w/ worsening HA and pain for past 7 months. Body aches, decreased appetite, weight loss and weakness.
  - CXR suspicious for TB.
  - CT, “findings are not consistent with active tuberculosis”.
  - Patient unable to produce sputum.
  - Quantiferon-Indeterminate.
  - isolation d/c on day 4. Patient refusing treatment. Language barrier.
  - Day 11-ID consult w/ recommendation to r/o TB and initiate isolation
  - BAL collected day 11- M.tb, Bone marrow aspirate showing AFBs- isolation initiated.
  - Patient was out of isolation for 10 days.
  - Day 19-Patient expired: Dx disseminated TB.
  - HD determined pt was infectious for past 7 months

162 Exposures
TB Isolation

Always have a high suspicion for TB and isolate immediately until ruled out completely

Discontinuation of Airborne Isolation Precautions

Suspect Tuberculosis

- Three consecutive sputum smears, at least one of which is an early morning sputum, and each collected at least 8 hours apart, are reported as negative for the presence of acid fast bacilli (AFB).
- For pediatric patients, as appropriate: Three consecutive gastric aspirate smears, each obtained in early morning and at least 24 hours apart, are reported as negative for the presence of AFB.
- TB-PCR test of smear-positive sputum specimen is negative.
- BAL sample is negative for M. tuberculosis complex by PCR or culture.
- An alternative diagnosis that explains the clinical and radiological findings adequately is made.
TB Isolation

**Confirmed Tuberculosis**

- Patients being treated for pulmonary tuberculosis must remain in isolation until discharged from the hospital to home quarantine or until three sputum smears, each collected at least 24 hours apart, are reported as negative for AFB.
- Exception: Patients with suspected or confirmed multidrug-resistant tuberculosis (MDR TB) or extensively drug resistant tuberculosis (XDR TB) will remain under isolation for the duration of the hospital stay while on antibiotic treatment.
- With isoniazid-susceptible disease treated with appropriate combination regimens, most patients become noninfectious within 10-14 days and may be safely discharged to home quarantine and outpatient and public health department follow-up. However, under the following circumstances, patients should **not** be discharged until there is clinical improvement and three consecutive sputum smearsm, each collected at least 24 hours apart, have been reported as negative for AFB:
  - Patient being discharged to a nursing home or other long term, group domiciliary setting.
  - Isoniazid-resistant tuberculosis (especially MDR TB or XDR TB) is suspected.
TB Isolation

- If there is any question of whether the patient can be released from isolation precautions, the Infection Control Department should be consulted for guidance on policy and procedure. An Infectious Disease attending physician should be consulted for specific treatment or other medical questions.
- Clinicians should be aware that reimbursement for the cost of anti-tuberculosis medications can be coordinated through the State and Local Divisions of Health in Wisconsin. The State TB program can be reached at 608 266-9692.
- Patients with confirmed pulmonary tuberculosis will have a “TB” flag placed in the header of their electronic medical record by an Infection Control Practitioner. The flag will be removed once they have met criteria for discontinuing isolation as in V.G.2, above and are deemed no longer infectious by their treating provider.
HVAC Controls

- Case of active TB in which switchable room was not switched to negative
  - Intervention- electronic alert sent to PE through EPIC to notify of airborne isolation order so room can be checked for neg. airflow. Also ensures prompt tx of patient to All when isolation ordered.
Thank you