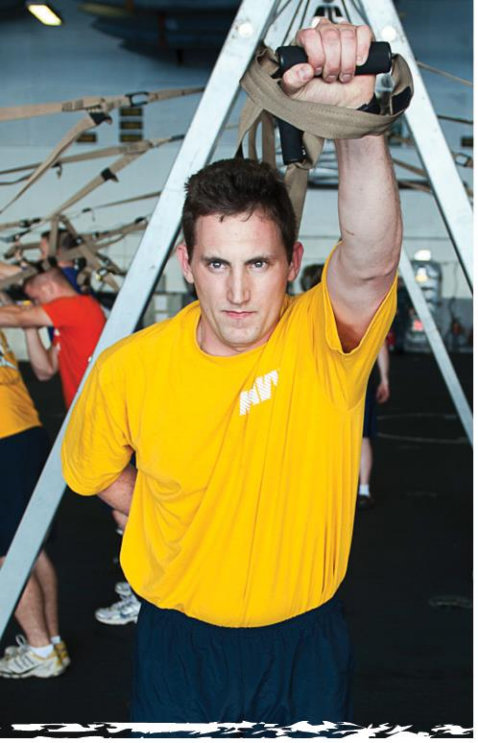
ANNOUNCEMENTS

- All participants must register for the Monthly Disease Surveillance Trainings in order for us to provide CMEs/CNEs:
  1. Log-on or Request log-on ID/password: https://tiny.army.mil/r/zB8A/CME
  2. Register at: https://tiny.army.mil/r/dVrGO/EpiTechFY14
- Communicate with your Service surveillance hub to ensure you get information on future trainings and past recordings: POC info in chat box
- Confirm attendance for today's training:
  - Enter your name/service into chat box or email your Service hub
  - You will receive a confirmation email within the next 48 hours
  - If you do not receive this email, please contact us
- Please put your phones on mute when not speaking




Tuberculosis Control
Principles and Real World Investigation Lessons

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You Suspect Active TB in a Specific Person

- First, isolate the suspected case until prove minimal contagiousness. If neg pressure room available, great. If not, we have isolated suspected cases at home.

- If case is a patient in a clinic, place a surgical mask on the patient.

- Three sputum smears, taken at intervals. Early morning specimens are preferable, but not required.
- Get a culture cooking.
- If the smears are NEG, patient does not require isolation pending the culture results. Cultures must be watched for at least 8 weeks (solid medium) or 6 weeks (liquid medium) to be declared NEG for growth.

Who is a Contact?

- Exposure is a matter of probability, but we require firm criteria for investigation purposes. Exposure thresholds are arbitrary, but based on experience, and serve to limit investigation effort past point of diminishing return.

- Eight hours or more in a single episode, close range (6 ft) or at least same room, indoors.
- Fifteen cumulative hours in a week, close range or at least same room, indoors.

- Brief proximity—dining facility serving lines, clinic reception desks, etc.—do not meet criterion. Avoid testing of worried well.

Prioritizing Contacts 1

- You may have more contacts than you have resources to track down and interview. If high priority contacts do not show elevated conversions, there is no need to interview and test lower priority contacts.
- Contact prioritization is imprecise!

- High priority contacts:
  - Children < 5yrs of age are ALWAYS high priority.
  - Immunocompromised (cancer, steroids, immune modulators).
  - Chronic medical conditions (DM, silicosis, gastrectomy, jejuno-ileal bypass) may be candidates for high priority categorization.

Prioritizing Contacts 2

- CDC grades exposure settings according to size:
  - "1" Vehicle
  - "2" Bedroom or smaller office
  - "3" House
  - "4" Indoor environment larger than a house

- Grade 1 exposure settings should be assigned high priority.
- Grade 2 settings may be high priority if numbers will not overtax public health personnel resources. If numbers are large, assign Grade 2 settings to medium priority.

Special Consideration: Naval Vessels

- Everyone on board a smaller vessel (FFG, DDG, CG) is potentially a contact via the ventilation system.
- Begin with ring testing around active case.
- Expand ring testing until no longer finding conversions.
- On a small vessel, may be forced by command to test entire ship's complement. On a small vessel, this is not necessarily bad.
- On a large deck, spare no effort to resist universal testing (Iwo Jima, 2003).

Contact Priority
DOES NOT Affect TST Risk-based Cut-off

- TST threshold for positive result is risk based.
- TSTs are always positive at ≥ 15 mm, regardless of risk.
- TSTs are always negative at < 5 mm, regardless of risk.
- TSTs are positive at ≥ 10 mm if assigned “Intermediate” risk.
- TSTs are positive at ≥ 5 mm if assigned “high” risk.

- Place TST. Repeat in 8 weeks if NEG to catch potential late exposure.
- A contact of an active case is always assigned “high” risk, with a cut-off of 5 mm.
- All contacts of an active case use the “high” risk cut-off.
- Therefore, all “Medium” or “Low” priority contacts of an active case use the 5 mm cut-off of high risk .

Interviewing the Active TB case

- In recent years, privacy has become the supreme consideration.
- BUMED lawyers have interpreted public health law as prohibiting the unauthorized disclosure of an index case's identity even in the setting of a contact investigation to prevent the transmission of disease.
- You may not, therefore, disclose that "[Named Person] has active TB. Have you been in close contact with [Named Person]?"
- You may disclose the active case's identity only if that person has authorized the disclosure. Name + Diagnosis = PHI.
- You should seek this authorization as it will greatly facilitate your investigation.
- If authorization to disclose PHI has not been given, your search for potential exposure must ask, indirectly, "Have you been in close indoor contact with anyone who was coughing?"

Civilian Health Departments

- When the active case or any of the contacts are civilian employees, the local health dept must be brought in.
  - They will handle the medical evaluation of a civilian active case
  - They will handle investigation of civilian employee contacts
  - Dependents are gray zone. If they are cooperative, military public health may retain jurisdiction, especially if they live on base. If they live off base, the health dept likely has primary responsibility.
  - If dependents live off base, the health dept must at least be notified and then kept apprised of developments and outcomes. You will promote better relationships for the future if you do this.

Treatment

- Almost everyone who does not prescribe these medications on a regular basis will generally need to look up the regimen schedules and dosages.
- If you have someone who needs treatment, you should be discussing the case and the intervention with your local or regional public health personnel.
- Generally, public health only consults on treatment for LTBI.
- Patients with TB disease are generally under the care of ID physicians.

BCG – A Perennial Thorn in TB Control

- You've all heard it: "My TST is positive because I received BCG as a child".

- TST cross reactivity from BCG administered as a young child (< 5-7 yrs) pretty much vanishes by adulthood.
- TST cross reactivity from BCG administered later than 5-7 years of age may be much more enduring.

- Regardless of when BCG administered, programmatically it is not even a consideration for us in the US. Positive is positive.
- If you know that BCG was administered as an older child or as an adult, test by IGRA rather than TST.

Interferon Gamma Releasing Assay (IGRA)

- Blood test not requiring a follow up visit.
- Has an advantage over the TST in that the antigen tested is *M. Tb* specific.
- More sensitive than TST to recent infection.
- Less sensitive than TST to remote infection.
- Like all tests, has a performance envelope with a certain rate of false positive and false negative.
- **Roughly equivalent to TST as a test for Tb.**
- **DO NOT USE AS A CONFIRMATORY TEST FOR A TST.**
- **IF YOU TESTED BY TST, DO NOT RETEST BY IGRA WITHOUT GOOD REASON. DISLIKING THE TST RESULT IS NOT A GOOD REASON. NEITHER IS CHILDHOOD BCG.**
- **2 Good Reasons: Documented NTM or recent (<10 yrs) BCG.**

Questions/Service POCs

- **Army: USAPHC – Disease Epidemiology Program**
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  Comm: (410) 436-7605 DSN: 584-7605
  usaphc.disease.epidemiology@us.army.mil
- **Navy: Contact your cognizant NEPMU**
  NEPMU2 Norfolk, VA: COMM: (757) 950-6600; DSN: (312) 377-6600
  Email: NEPMU2NorfolkThreatAssessment@med.navy.mil
  NEPMU5 San Diego, CA: COMM: (619) 556-7070; DSN (312) 526-7070
  Email: ThreatAssessment@med.navy.mil
  NEPMU6 Honolulu, HI: COMM: (808) 471-0237; DSN: (315) 471-0237
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- **Air Force: Contact your MAJCOM PH or USAFSAM/PHR**
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